

FCC TEST REPORT

FCC 47 CFR Part 15C Industry Canada RSS-247

Digital transmission systems operating within the 2400 - 2483.5 MHz band

Report Reference No...... G0M-1503-4620-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

RSS-247, Issue 1, 2015-05 RSS-Gen, Issue 4, 2014-11

ANSI C63.10:2013 ANSI C63.4:2014

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

Equipment under test (EUT):

Product description Wireless camera (Standard version)

Model No. OrbitX ST

Additional Model(s) OrbitX EX

Brand Name(s)

Hardware version

Rev 2

Firmware / Software version

478

FCC-ID: YML-ORBITX IC: 9249A-ORBITX

Test result Passed



Possible test case verdicts:

- neither assessed nor tested

- 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

Compiled by: Wilfried Treffke

Tested by (+ signature)...... Wilfried Treffke

(Responsible for Test)

Approved by (+ signature) Christian Weber

Date of issue 2015-08-04

Total number of pages 155

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 OrbitX ST model includes circuitry to support a Micro-HDMI connection and mechanics to give access to the HDMI port. The OrbitX EX model uses the same PCB, but does not have the HDMI components populated. Full Test was performed on the fully version OrbitX ST. The list of equality of structure is attached as annex.

C. Weber



Version History

Version	Issue Date	Remarks	Revised by
01	2015-08-04	Initial Release	



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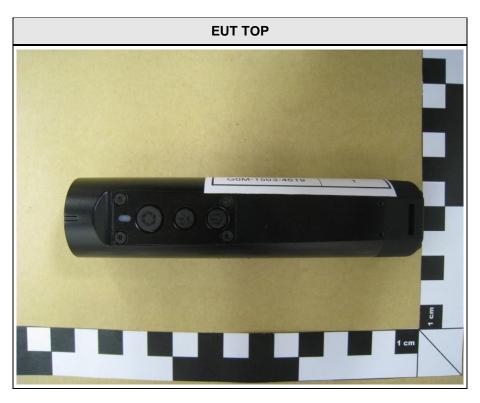


1 Equipment (Test item) Description

Description	Wireless camera	a (Standard vers	sion)			
Model	OrbitX ST					
Additional Model(s)	OrbitX EX					
Brand Name(s)	None					
Serial number	1					
Hardware version	Rev 2					
Software / Firmware version	478					
FCC-ID	YML-ORBITX					
IC	9249A-ORBITX					
Equipment type	End product					
Radio type	Transceiver					
Radio technology	IEEE 802.11 b/g/n					
Operating frequency range	2412 - 2462 MH	Z				
Assigned frequency band	2400 - 2483.5 MHz					
	F _{LOW20}	2412 MHz F _{LOW40} 2422 MHz				
Main test frequencies	F _{MID20}	2437 MHz	F _{MID40}	2437 MHz		
	F _{HIGH20} 2462 MHz F _{HIGH40} 2452 MHz					
Spreading	CCK, DSSS, OFDM					
Modulations	BPSK, QPSK, 16-QAM, 64-QAM					
Number of channels	11					
Channel spacing	5 MHz					
Number of antennas	1					
	Туре	integrated				
Antenna	Model	Printed flex PC	В			
Antonia	Manufacturer	Custom				
	Gain	+0.0 dBi (by m	easurement)			
Manufacturer	BARTEC PIXAVI AS Domkirkeplassen 2 4006 Stavanger NORWAY					
	V _{NOM}	3.7 VDC lithiu	m			
Power supply	V _{MIN}	N/R				
	V _{MAX}	N/R				
	Model	N/A				
AC/DC-Adaptor	Vendor	N/A				
ACIDO-Adaptor	Input	N/A				
	Output	N/A				



1.1 Photos – Equipment External

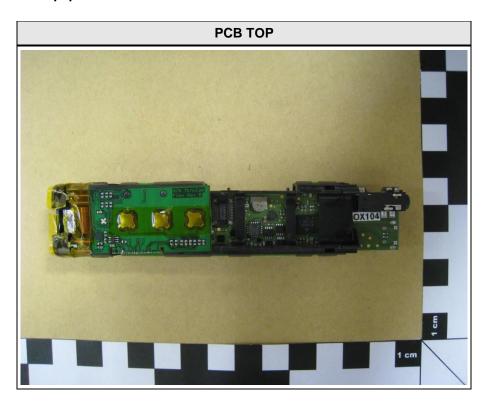


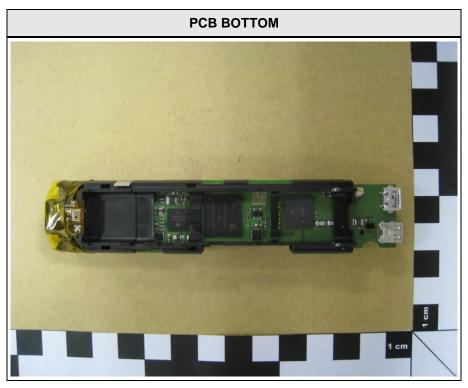


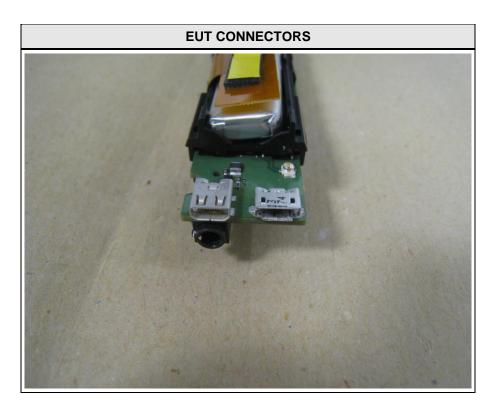


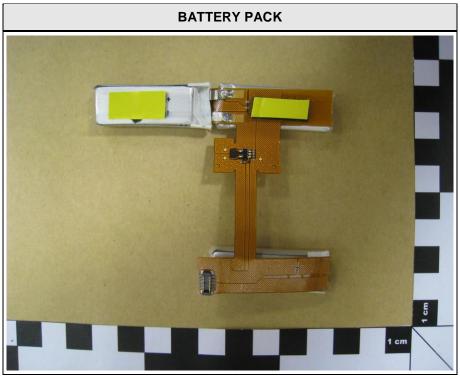


1.2 Photos – Equipment internal

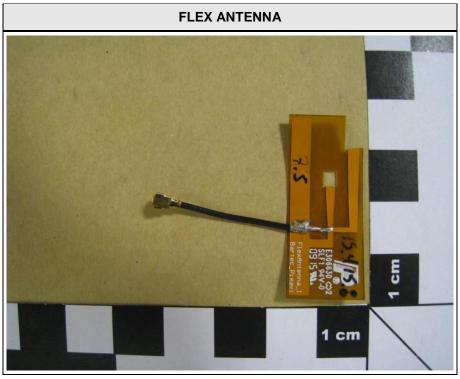






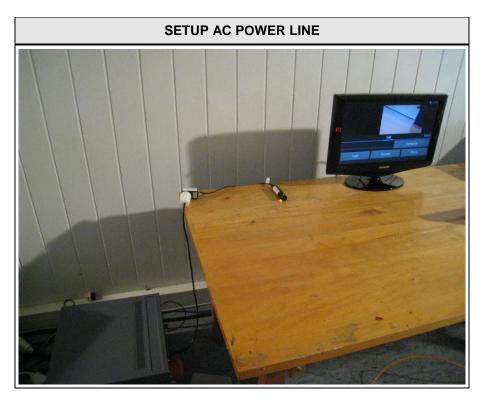


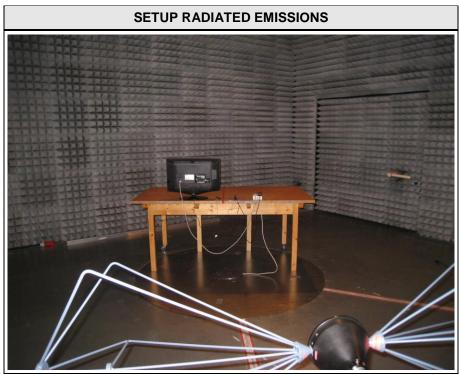






1.3 Photos - Test setup







1.4 Supporting Equipment Used During Testing

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

1.5 Test Modes

Mode #		Description
	General conditions:	EUT powered via USB
DSSS	Radio conditions:	Mode = standalone transmit Spreading = DSSS Modulation = BPSK Data rate = 1 Mbps Bandwidth = 20 MHz Duty cycle = 90 % Power level = 15 dBm (test mode setting)
	General conditions:	EUT powered via USB
OFDM	Radio conditions:	Mode = standalone transmit Spreading = OFDM Modulation = BPSK Data rate = 6 Mbps Bandwidth = 20 MHz Duty cycle = 50 % Power level = 15 dBm (test mode setting)
	General conditions:	EUT powered via USB
HT20	Radio conditions:	Mode = standalone transmit Spreading = OFDM Modulation = BPSK MCS index = 0 Guard Interval = long Bandwidth = 20 MHz Data rate = 6.5 Mbps Duty cycle = 50 % Power level = 15 dBm (test mode setting)
	General conditions:	EUT powered via USB
HT40	Radio conditions:	Mode = standalone transmit Spreading = OFDM Modulation = BPSK MCS index = 0 Guard Interval = long Bandwidth = 40 MHz Data rate = 13 Mbps Duty cycle = 50 % Power level = 15 dBm (test mode setting)
Doccine	General conditions:	EUT powered via USB
Receive	Radio conditions:	Mode = standalone receive



	General conditions:	EUT powered by commercial AC/DC-Adapter
AC-Powerline	Radio conditions:	Mode = standalone transmit Spreading = DSSS Power level = Maximum



1.6 Test Equipment Used During Testing

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

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

6dB Bandwidth					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	EF00312	2015-02	2016-02

Maximum peak conducted power						
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due	
Spectrum Analyzer	R&S	FSP 30	EF00312	2015-02	2016-02	

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

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

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

Radiated spurious emissions						
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due	
Semi-anechoic chamber	Frankonia	AC 1	EF00062	-	-	
Spectrum Analyzer	R&S	FSP 30	EF00312	2015-02	2016-02	
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	2014-11	2016-11
EMI Test Receiver	R&S	ESCS 30	EF00295	2014-10	2015-10



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 ($dB\mu V$) + A.F. (dB) = Net field strength ($dB\mu V/m$)

Net:

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

Limit:

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

Limit (dB μ V/m) = 20*log (μ V/m)

Margin:

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

Example only:

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



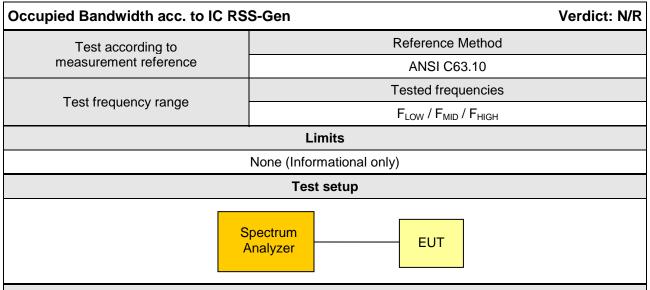
2 Result Summary

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



3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied Bandwidth



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 _{LOW20}	2412	DSSS	14700		
F _{MID20}	2437	DSSS	14900		
F _{HIGH20}	2462	DSSS	14800		
F _{LOW20}	2412	OFDM	16600		
F _{MID20}	2437	OFDM	17400		
F _{HIGH20}	2462	OFDM	16600		
F _{LOW20}	2412	HT20	17700		
F _{MID20}	2437	HT20	18600		
F _{HIGH20}	2462	HT20	17700		
F _{LOW40}	2422	HT40	35840		
F _{MID40}	2437	HT40	36000		
F _{HIGH40}	2452	HT40	36000		
Comments:					



Occupied Bandwidth - DSSS F_{LOW}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

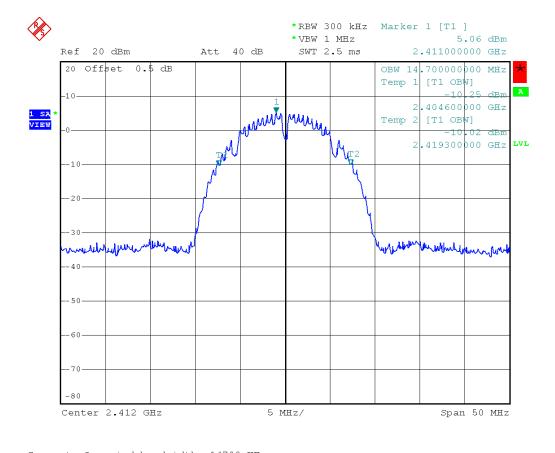
Mode: Tx, IEEE 802.11b, 1 Mbps, 2412 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



Comment: Occupied bandwidth: 14700 KHz Date: 1.JAN.2000 01:27:47



Occupied Bandwidth - DSSS F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1 Mbps, 2437 MHz, modulated

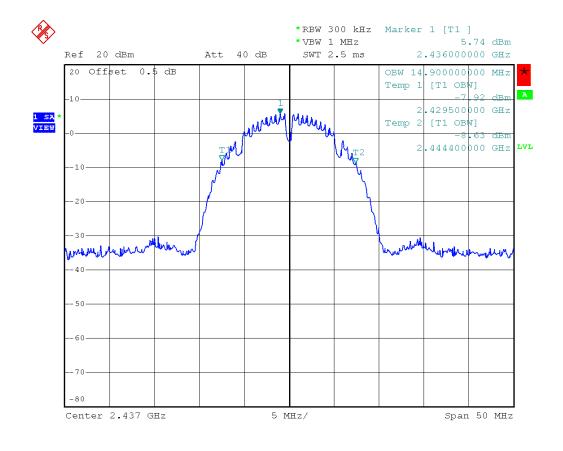
Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Comment: Occupied bandwidth: 14900 KHz Date: 1.JAN.2000 01:35:53

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement





Occupied Bandwidth - DSSS F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

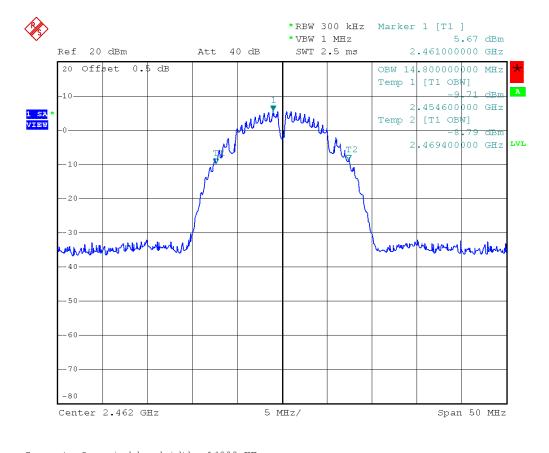
Mode: Tx, IEEE 802.11b, 1 Mbps, 2462 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



Comment: Occupied bandwidth: 14800 KHz Date: 1.JAN.2000 01:37:46



Occupied Bandwidth - OFDM FLOW

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

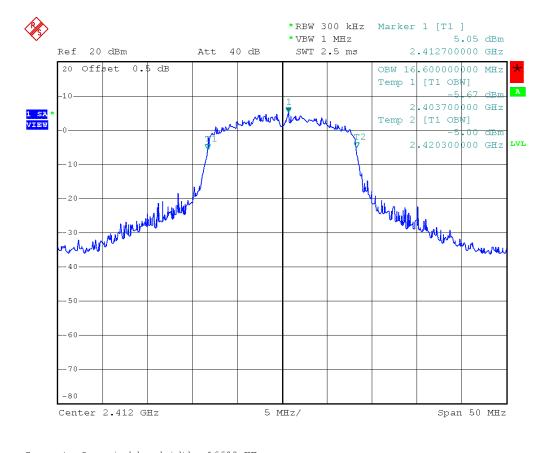
Mode: Tx, IEEE 802.11g, 6 Mbps, 2412 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



Comment: Occupied bandwidth: 16600 KHz Date: 1.JAN.2000 01:40:30



Occupied Bandwidth – OFDM F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6 Mbps, 2437 MHz, modulated

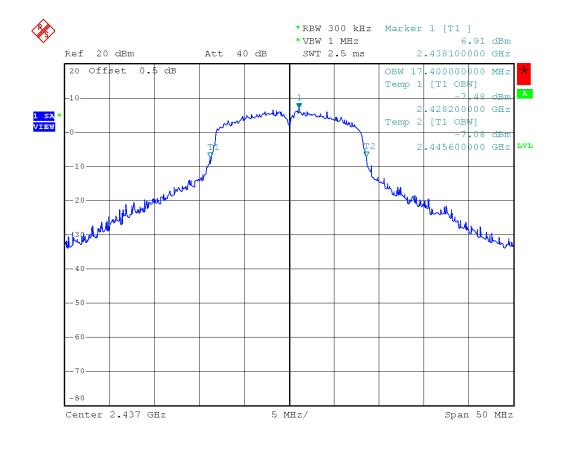
Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Comment: Occupied bandwidth: 17400 KHz Date: 1.JAN.2000 01:44:53

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement





Occupied Bandwidth - OFDM F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

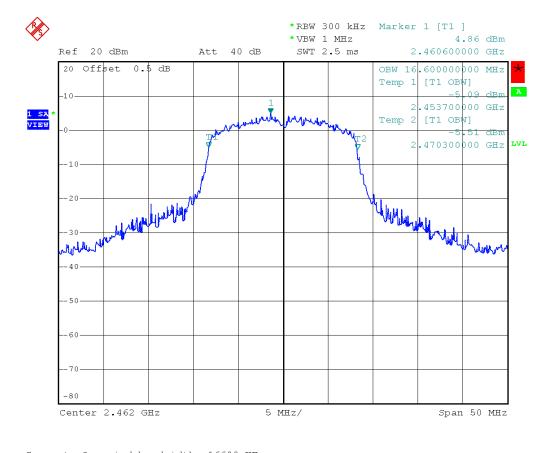
Mode: Tx, IEEE 802.11g, 6 Mbps, 2462 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



Comment: Occupied bandwidth: 16600 KHz Date: 1.JAN.2000 01:45:58



Occupied Bandwidth - HT20 F_{LOW}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

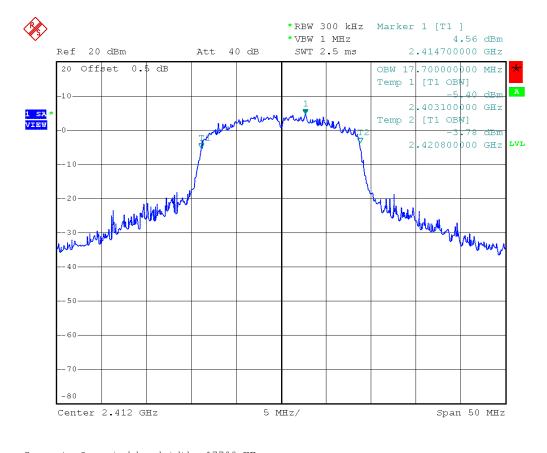
Mode: Tx, IEEE 802.11n, HT20, 2412 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



Comment: Occupied bandwidth: 17700 KHz Date: 1.JAN.2000 01:49:15



Occupied Bandwidth - HT20 F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke
Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2437 MHz, modulated

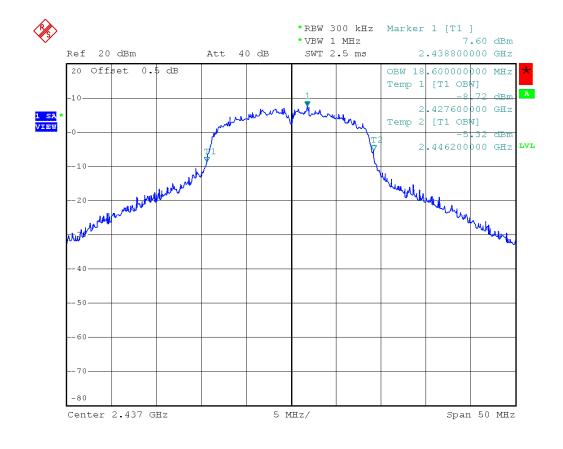
Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Comment: Occupied bandwidth: 18600 KHz Date: 1.JAN.2000 01:58:09

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement





Occupied Bandwidth - HT20 FHIGH

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

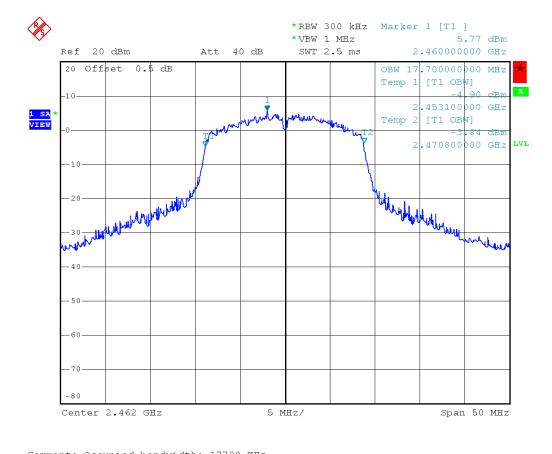
Mode: Tx, IEEE 802.11n, HT20, 2462 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



Comment: Occupied bandwidth: 17700 KHz Date: 1.JAN.2000 02:00:03



Occupied Bandwidth - HT40 F_{LOW}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

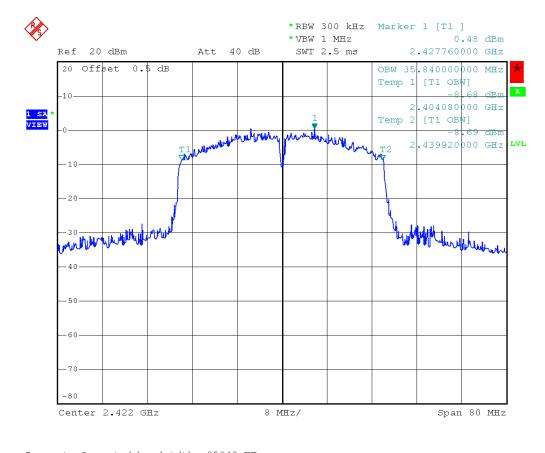
Mode: Tx, IEEE 802.11n, HT40, 2422 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



Comment: Occupied bandwidth: 35840 KHz Date: 1.JAN.2000 02:03:45



Occupied Bandwidth - HT40 F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

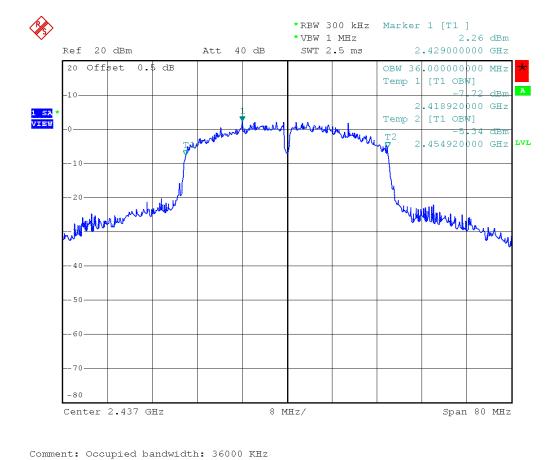
Mode: Tx, IEEE 802.11n, HT40, 2437 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: conducted measurement



1.JAN.2000 02:06:06



Occupied Bandwidth - HT40 F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

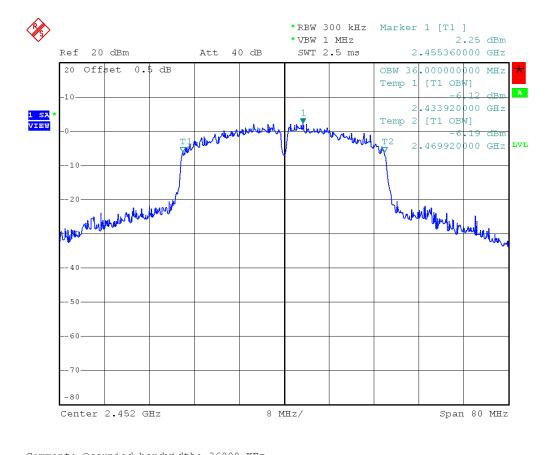
Mode: Tx, IEEE 802.11n, HT40, 2452 MHz, modulated

Test Date: 2015-04-24

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

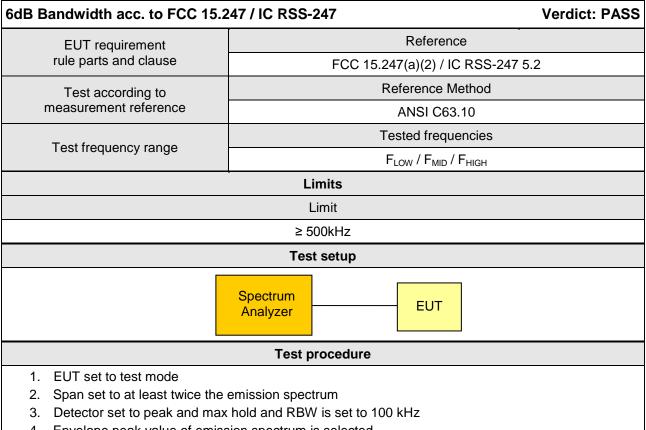
Note 2: conducted measurement



Comment: Occupied bandwidth: 36000 KHz Date: 1.JAN.2000 02:40:51



3.2 Test Conditions and Results - 6 dB Bandwidth



- 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 _{LOW20}	2412	DSSS	10214.4	500	PASS	
F _{MID20}	2437	DSSS	10214.4	500	PASS	
F _{HIGH20}	2462	DSSS	10214.4	500	PASS	
F _{LOW20}	2412	OFDM	15225.6	500	PASS	
F _{MID20}	2437	OFDM	15187.2	500	PASS	
F _{HIGH20}	2462	OFDM	15744.0	500	PASS	
F _{LOW20}	2412	HT20	15206.4	500	PASS	
F _{MID20}	2437	HT20	15225.6	500	PASS	
F _{HIGH20}	2462	HT20	15225.6	500	PASS	
F _{LOW40}	2422	HT40	32961.6	500	PASS	
F _{MID40}	2437	HT40	31665.6	500	PASS	
F _{HIGH40}	2452	HT40	32961.6	500	PASS	
Comments:					•	



6 dB Bandwidth - DSSS FLOW

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: **BARTEC PIXAVI AS**

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

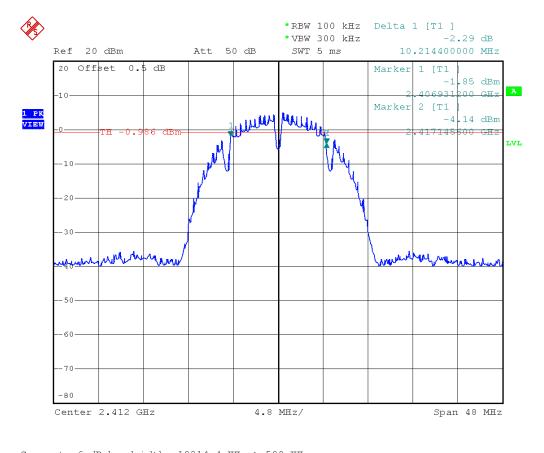
Test Site: **Eurofins Product Service GmbH**

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1 Mbps, 2412 MHz, modulated

Test Date: 2015-04-24 **PASS** Verdict:

Note 1: Minimum 6 dB Bandwidth conducted



Comment: 6 dB bandwidth: 10214.4 KHz > 500 KHz

1.JAN.2000 02:54:48 Date:



6 dB Bandwidth - DSSS F_{MID}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

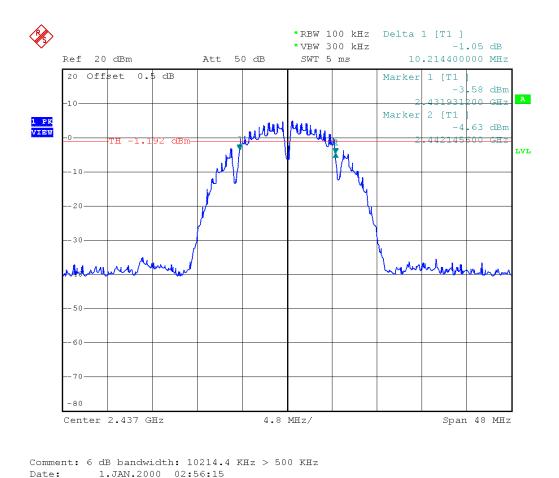
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1 Mbps, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted





6 dB Bandwidth - DSSS F_{HIGH}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

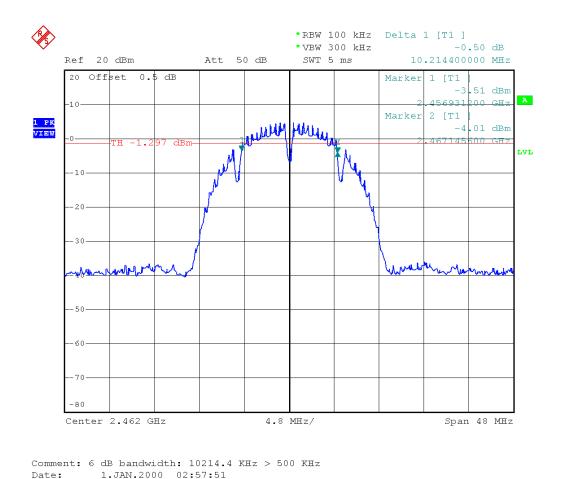
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1 Mbps, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted





6 dB Bandwidth - OFDM FLOW

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

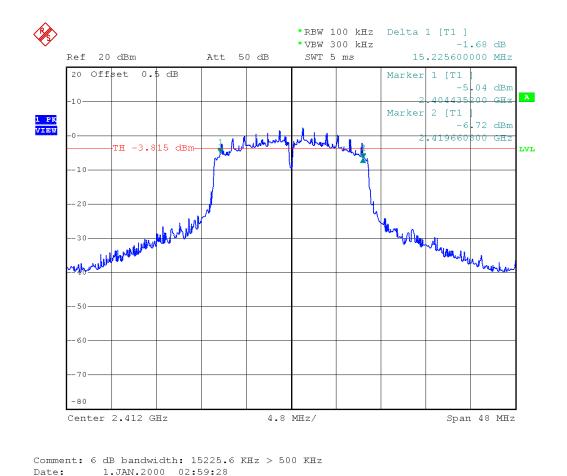
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6 Mbps, 2412 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted





6 dB Bandwidth - OFDM F_{MID}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

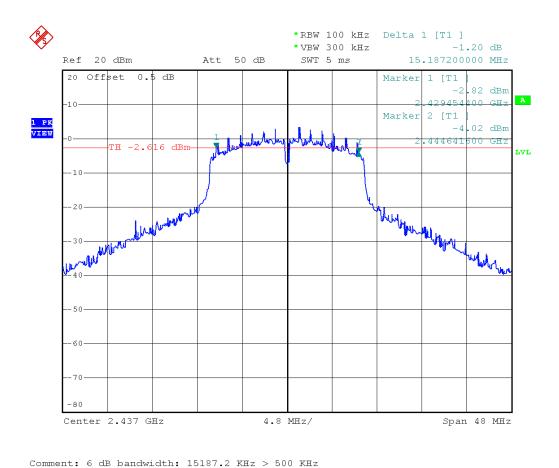
Mode: Tx, IEEE 802.11g, 6 Mbps, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted

1.JAN.2000 03:00:40

Date:





6 dB Bandwidth - OFDM F_{HIGH}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

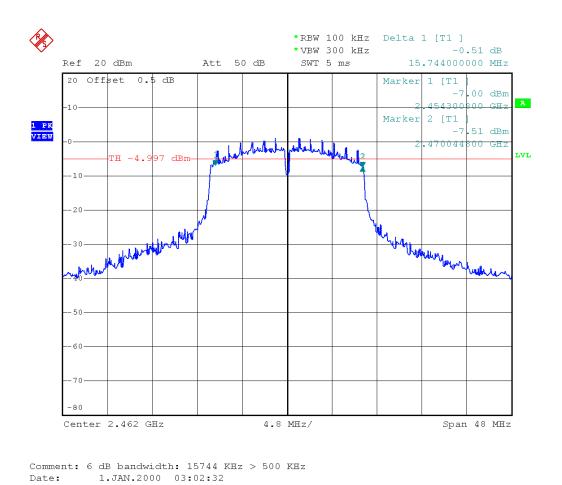
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6 Mbps, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted





6 dB Bandwidth - HT20 F_{LOW}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

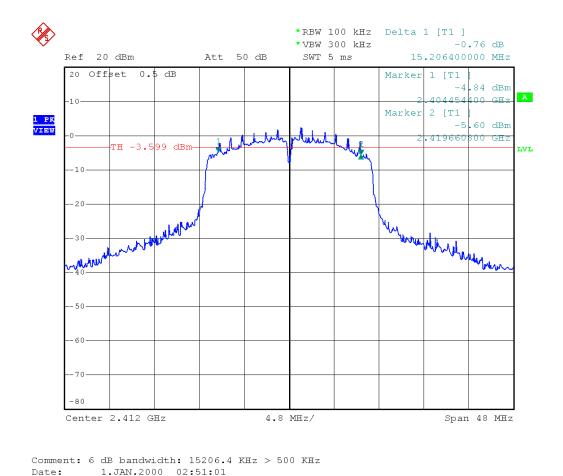
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2412 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted





6 dB Bandwidth - HT20 F_{MID}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

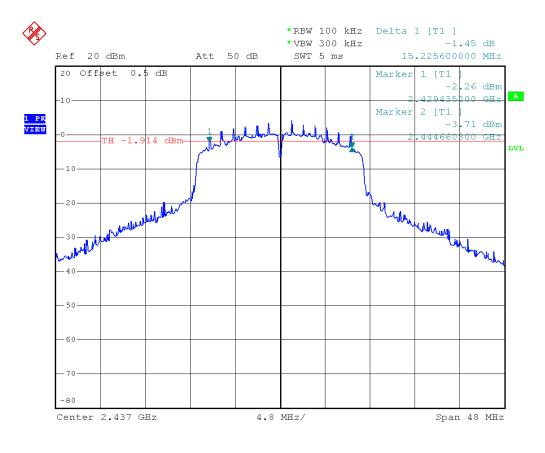
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted



Comment: 6 dB bandwidth: 15225.6 KHz > 500 KHz

Date: 1.JAN.2000 02:46:48



6 dB Bandwidth - HT20 F_{HIGH}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

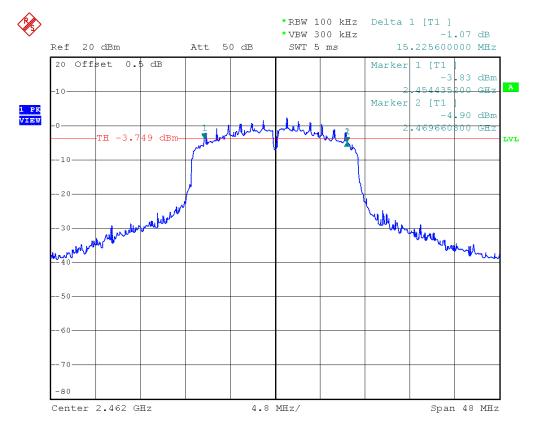
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted



Comment: 6 dB bandwidth: 15225.6 KHz > 500 KHz

Date: 1.JAN.2000 02:49:14



6 dB Bandwidth - HT40 F_{LOW}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: **BARTEC PIXAVI AS**

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

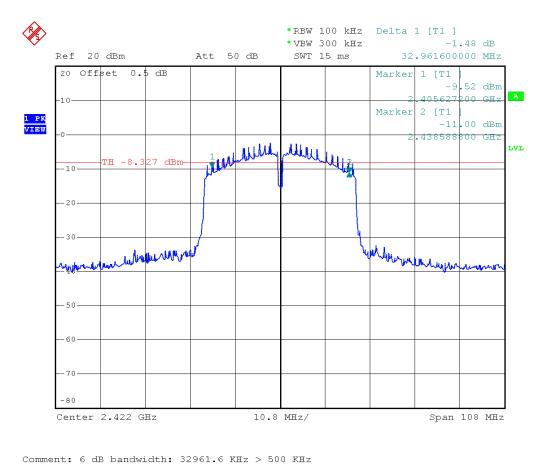
Test Site: **Eurofins Product Service GmbH**

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2422 MHz, modulated

Test Date: 2015-04-24 **PASS** Verdict:

Note 1: Minimum 6 dB Bandwidth conducted



1.JAN.2000 02:26:02

Date:



6 dB Bandwidth - HT40 F_{MID}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

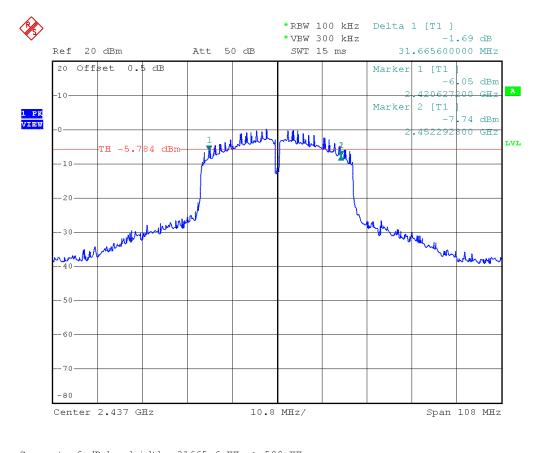
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted



Comment: 6 dB bandwidth: 31665.6 KHz > 500 KHz

Date: 1.JAN.2000 02:24:29



6 dB Bandwidth - HT40 F_{HIGH}

Minimum 6 dB Bandwidth acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

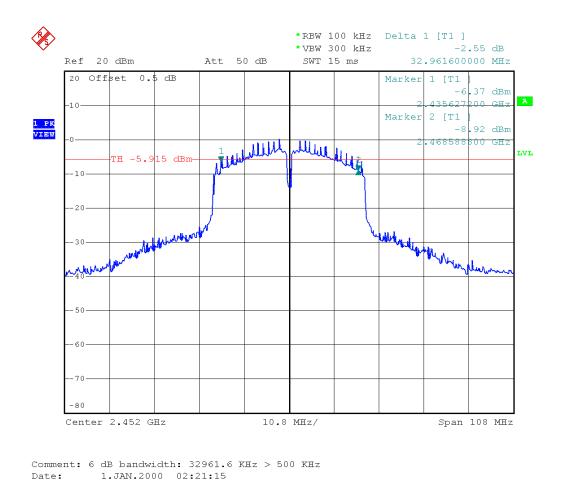
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2452 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: Minimum 6 dB Bandwidth conducted

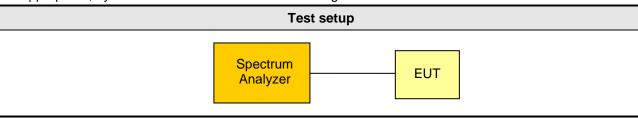




3.3 Test Conditions and Results – Maximum peak conducted power

Maximum peak conducted power acc. to FCC 15.247 / IC RSS-247 Verdict: PA				
EUT requirement	Reference			
rule parts and clause	FCC 15.247(b)(3) / IC RSS-247 5.4			
Test according to	Reference Method			
measurement reference	ANSI C63.10			
T+ f	Tested frequencies			
Test frequency range	F _{LOW} / F _{MID} / F _{HIGH}			
Measurement mode	Peak			
Maximum antenna gain	0.0 dBi ⇒ Limit correction = 0 dB			
	Limits			
Limit				
	1 W (30 dBm)			
(00 42)				

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 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
- 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 _{LOW20}	2412	3.7 VDC	DSSS	16.9	0.049	30	-13.10		
F _{MID20}	2437	3.7 VDC	DSSS	17.1	0.051	30	-12.90		
F _{HIGH20}	2462	3.7 VDC	DSSS	17.1	0.051	30	-12.90		
F _{LOW20}	2412	3.7 VDC	OFDM	18.6	0.072	30	-11.40		
F _{MID20}	2437	3.7 VDC	OFDM	18.8	0.076	30	-11.20		
F _{HIGH20}	2462	3.7 VDC	OFDM	18.5	0.071	30	-11.50		
F _{LOW20}	2412	3.7 VDC	HT20	18.8	0.076	30	-11.20		
F _{MID20}	2437	3.7 VDC	HT20	19.4	0.087	30	-10.60		
F _{HIGH20}	2462	3.7 VDC	HT20	18.9	0.078	30	-11.10		
F _{LOW40}	2422	3.7 VDC	HT40	18.4	0.069	30	-11.60		
F _{MID40}	2437	3.7 VDC	HT40	18.6	0.072	30	-11.40		
F _{HIGH40}	2452	3.7 VDC	HT40	18.3	0.068	30	-11.70		
Comments:					•				



3.4 Test Conditions and Results – Power spectral density

4. Peak power density is determined from peak emission of envelope

Power spectral density acc. to FCC 15.247 / IC RSS-247 Verdict: PASS					
Reference					
FCC 15.247(e) / IC RSS-247 5.2					
Reference Method					
ANSI C63.10					
Tested frequencies					
F _{LOW} / F _{MID} / F _{HIGH}					
Peak					
Limits					
8 dBm / 3 kHz					
Test setup					
Spectrum Analyzer EUT					
Test procedure					
 EUT set to test mode (Communication tester is used if needed) Center frequency set to test channel center frequency Span is set large enough to capture maximum emissions in passband, RBW is set to 3kHz 					
	Reference FCC 15.247(e) / IC RSS-247 5.2 Reference Method ANSI C63.10 Tested frequencies FLOW / FMID / FHIGH Peak Limits 8 dBm / 3 kHz Test setup Spectrum Analyzer EUT Test procedure nunication tester is used if needed)				



Product Service

	Test results								
Channel	Frequency [MHz]	Test mode	Peak frequency [MHz]	Peak power density [dBm/100kHz]	Limit [dBm/3kHz]	Margin [dB]			
F _{LOW20}	2412	DSSS	4.65	2413.08	8.0	-03.35			
F _{MID20}	2437	DSSS	4.82	2437.54	8.0	-03.18			
F _{HIGH20}	2462	DSSS	4.52	2460.56	8.0	-03.48			
F _{LOW20}	2412	OFDM	1.92	2413.26	8.0	-06.08			
F _{MID20}	2437	OFDM	3.56	2438.26	8.0	-04.44			
F _{HIGH20}	2462	OFDM	1.68	2463.26	8.0	-06.32			
F _{LOW20}	2412	HT20	1.98	2410.74	8.0	-06.02			
F _{MID20}	2437	HT20	3.74	2438.26	8.0	-04.26			
F _{HIGH20}	2462	HT20	2.06	2463.26	8.0	-05.94			
F _{LOW40}	2422	HT40	-2.63	2419.57	8.0	-10.63			
F _{MID40}	2437	HT40	-0.02	2434.57	8.0	-08.02			
F _{HIGH40}	2452	HT40	-0.01	2449.48	8.0	-08.01			
Comments:	Comments: Measurements were performed with RBW = 100 kHz								



3.5 Test Conditions and Results – AC power line conducted emissions

Power line conducte	07 / IC RSS-Gen	Verdict: PASS				
Test according referenced standards			Reference Method			
				ANSI C63.4		
Fully configured sample	e scanned over		F	requency range		
the following frequency range			0.1	5 MHz to 30 MHz		
Points of Application			Ap	plication Interface		
AC Mains			LISN			
EUT test me	ode	AC-Powerline				
		Limits	s and results			
Frequency [MHz]	Quasi-Peak [dBµV]	Result	Average [dBµV]	Result	
0.15 to 5	66 to 56	*	PASS	56 to 46*	PASS	
0.5 to 5	56		PASS	46	PASS	
5 to 30	60		PASS	50	PASS	
Comments: * Limit decreases linearly with the logarithm of the frequency.						



Conducted Emissions

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

Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

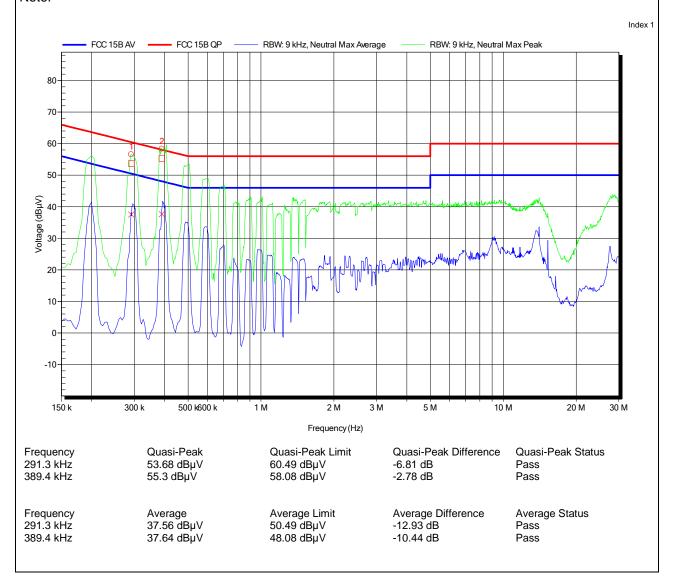
Test Conditions: Tnom: 22°C, Unom: 120 V AC (AC/DC adaptor)

LISN: ESH2-Z5 N

Mode: charging, Wlan (ping), HDMI-Monitor

Test Date: 2015-05-05

Note:





Conducted Emissions

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

Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

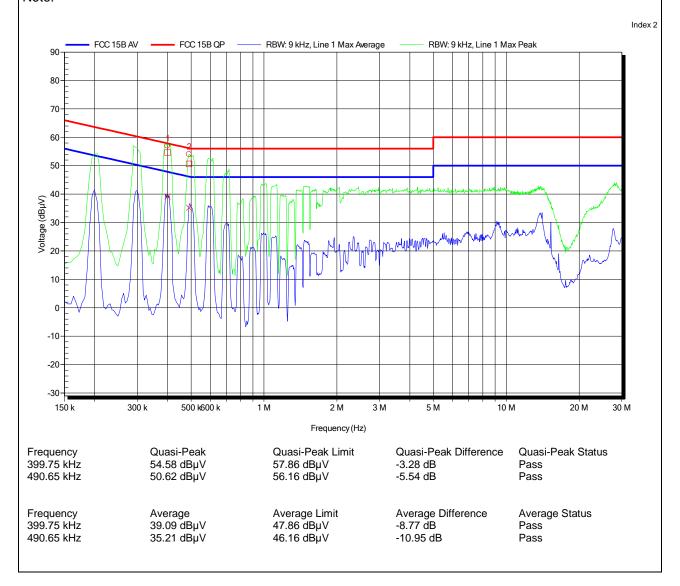
Test Conditions: Tnom: 22°C, Unom: 120 V AC (AC/DC adaptor)

LISN: ESH2-Z5 L

Mode: charging, Wlan (ping), HDMI-Monitor

Test Date: 2015-05-05

Note:





3.6 Test Conditions and Results - Band edge compliance

Band-edge compliance acc. to FCC 15.247 / IC RSS-247 Verdict: PAS						
EUT requirement		Reference				
rule parts and clause		FCC 15.247(d) / IC RSS-247 5.5				
Test according to		Reference Method				
measurement reference		ANSI C63.10				
Toot fraguency range		Tested frequencies				
Test frequency range	F _{LOW} / F _{HIGH}					
Measurement mode	Peak					
	Lim	its				
Limit		Condition				
≤ -20 dB / 100 kHz		Peak power measurement d	etector = Peak			
≤ -30 dB / 100 kHz		Peak power measurement detector = RMS				
	Test s	setup				
	pectrum nalyzer	EUT				

Test procedure

- 1. EUT set to test mode (Communication tester is used if needed)
- 2. Span set around lower band edge and detector is set to peak and max hold
- 3. Resolution bandwidth is set to 100 kHz
- 4. Markers are set to peak emission levels within frequency band and outside frequency band
- Band edge attenuation is determined from level difference

	Test results								
Channel	Frequency [MHz]	Mode	Level [dBc]	Limit [dBc]	Margin [dB]				
F _{LOW20}	2412	DSSS	-40.58	-20	-20.58				
F _{HIGH20}	2462	DSSS	-42.24	-20	-22.24				
F _{LOW20}	2412	OFDM	-28.68	-20	-08.68				
F _{HIGH20}	2462	OFDM	-38.35	-20	-18.35				
F _{LOW20}	2412	HT20	-28.70	-20	-08.70				
F _{HIGH20}	2462	HT20	-39.52	-20	-19.52				
F _{LOW40}	2422	HT40	-31.95	-20	-11.95				
F _{HIGH40}	2452	HT40	-30.58	-20	-10.58				
Comments:									

Test Report No.: G0M-1503-4620-TFC247WF-V01



Band-edge compliance - DSSS F_{LOW}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

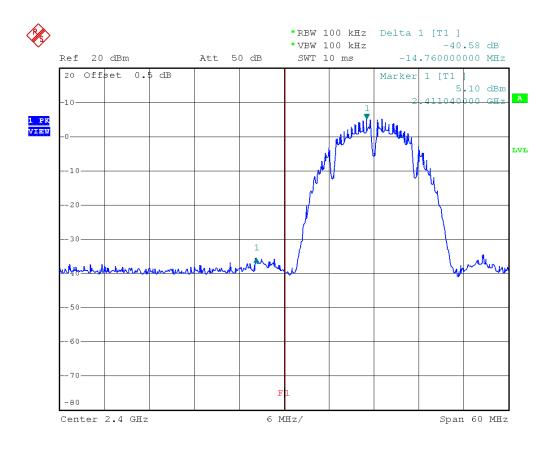
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1Mbps, 2412 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: lower Band-edge, conducted measurement



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

Date: 1.JAN.2000 04:58:13



Band-edge compliance - DSSS F_{HIGH}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

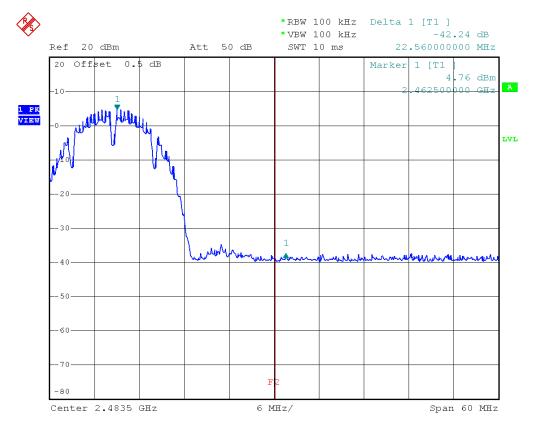
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1Mbps, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: upper Band-edge, conducted measurement



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

Date: 1.JAN.2000 05:00:41



Band-edge compliance - OFDM F_{LOW}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

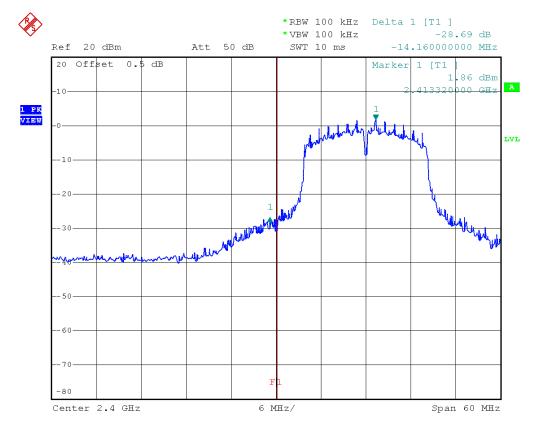
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6Mbps, 2412 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: lower Band-edge, conducted measurement



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

Date: 1.JAN.2000 05:02:42



Band-edge compliance - OFDM F_{HIGH}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: **BARTEC PIXAVI AS**

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

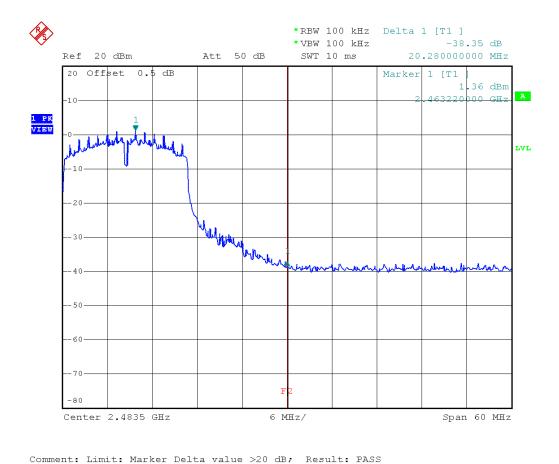
Test Site: **Eurofins Product Service GmbH**

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6Mbps, 2462 MHz, modulated

Test Date: 2015-04-24 **PASS** Verdict:

Note 1: upper Band-edge, conducted measurement



1.JAN.2000 05:04:26

Date:



Band-edge compliance - HT20 F_{LOW}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: **BARTEC PIXAVI AS**

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

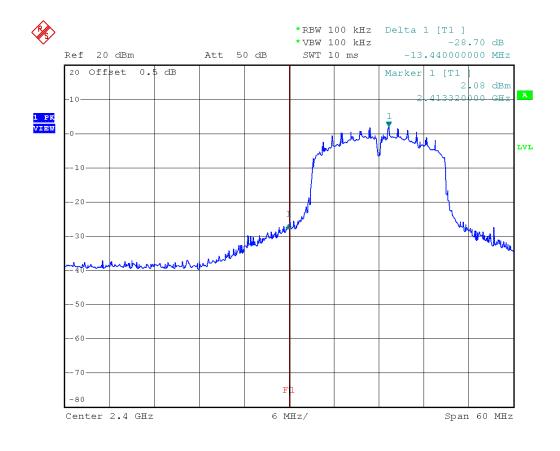
Test Site: **Eurofins Product Service GmbH**

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2412 MHz, modulated

Test Date: 2015-04-24 **PASS** Verdict:

Note 1: lower Band-edge, conducted measurement



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

1.JAN.2000 05:07:20 Date:



Band-edge compliance - HT20 F_{HIGH}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

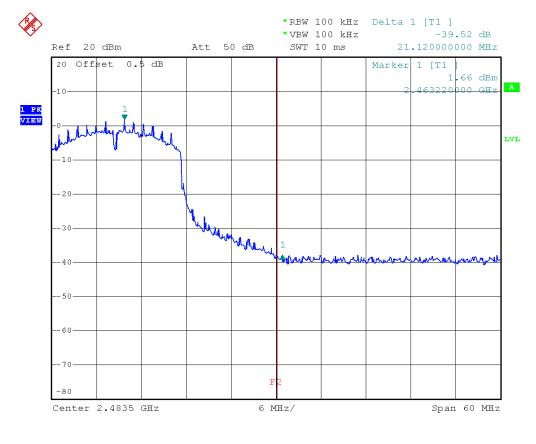
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: upper Band-edge, conducted measurement



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

Date: 1.JAN.2000 05:08:53



Band-edge compliance - HT40 F_{LOW}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

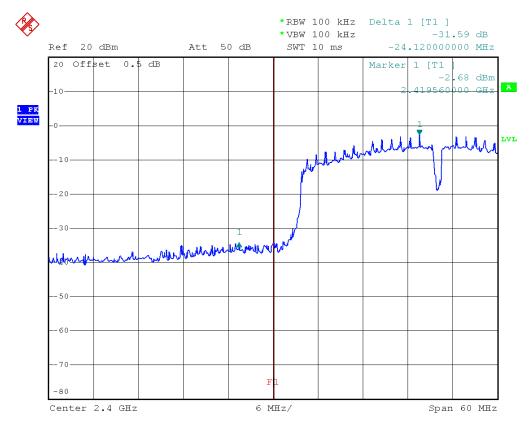
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2422 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: lower Band-edge, conducted measurement



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

Date: 1.JAN.2000 05:10:28



Band-edge compliance - HT40 F_{HIGH}

Band-edge compliance acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

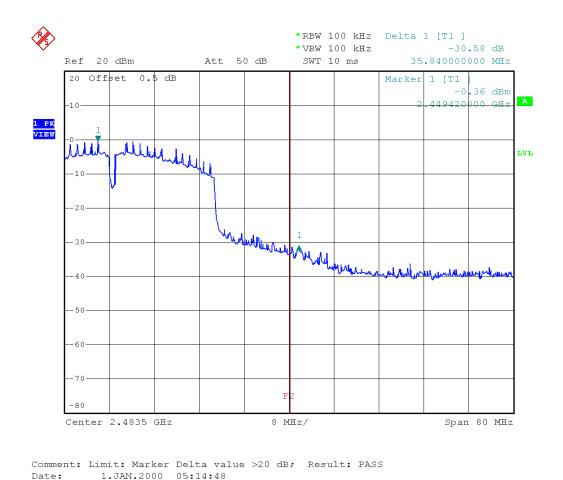
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2452 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: upper Band-edge, conducted measurement





3.7 Test Conditions and Results - Conducted spurious emissions

onducted spurious emissions acc.	to FCC 1	5.247 / IC RSS-247	Verdict: PASS		
EUT requirement		Reference			
rule parts and clause	FCC 15.247(d) / IC RSS-247 5.5				
Test according to		Reference Method			
measurement reference		ANSI C63.10			
		Tested frequencies			
Test frequency range		10 MHz – 10 th Harmonic			
Measurement mode					
	Lin	nits			
Limit	Limit				
≤ -20 dB / 100 kHz		Peak power measurement detector = Peak			
≤ -30 dB /100 kHz		Peak power measurement detector = RMS			
	Test	setup			
	ectrum nalyzer	EUT			
	Test pro	ocedure			
1. EUT set to test mode (Communication	ition tester i	s used if needed)			
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					
Attenuation is determined from lev	el difference	е			



Product Service

	Test results									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Emission Level [dbm]	Peak power [dBm]	Limit [dBm]	Margin [dB]			
F _{LOW20}	2412	DSSS	4824.36	-49.61	1.5	-18.5	-31.11			
F _{MID20}	2437	DSSS	4874.17	-44.68	2.8	-17.2	-27.48			
F _{HIGH20}	2462	DSSS	4923.97	-43.18	3.7	-16.3	-26.88			
F _{LOW20}	2412	OFDM	4824.36	-49.3	1.3	-18.7	-30.60			
F _{MID20}	2437	OFDM	4874.17	-50.51	1.5	-18.5	-32.01			
F _{HIGH20}	2462	OFDM	4923.97	-49.89	0.6	-19.4	-30.49			
F _{LOW20}	2412	HT20	4824.36	-50.72	1.7	-18.3	-32.42			
F _{MID20}	2437	HT20	4874.17	-50.34	3.4	-16.6	-33.74			
F _{HIGH20}	2462	HT20	4923.97	-50.34	1.8	-18.2	-32.14			
F _{LOW40}	2422	HT40	4844.46	-48.47	-2.9	-22.9	-25.57			
F _{MID40}	2437	HT40	4894.26	-48.93	-0.8	-20.8	-28.13			
F _{HIGH40}	2452	HT40	4903.87	-49.55	-0.1	-20.1	-29.45			
Comments:			•				•			



Conducted spurious emissions - DSSS F_{LOW}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

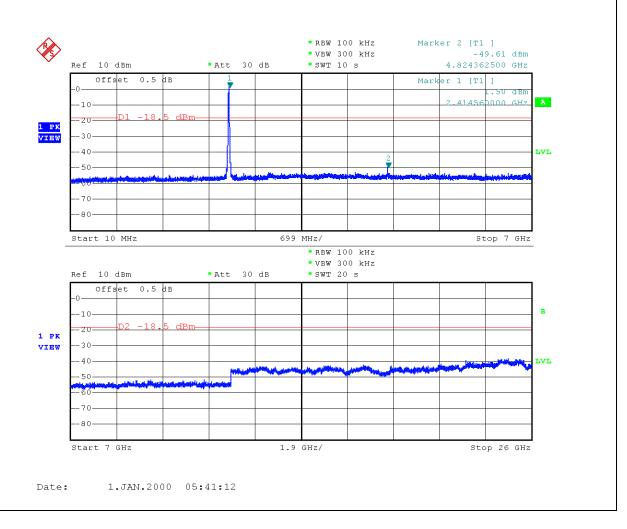
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1Mbps, 2412 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - DSSS F_{MID}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

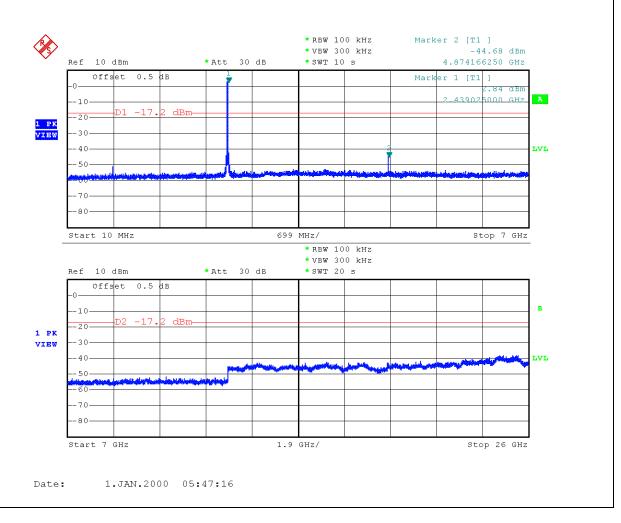
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1Mbps, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - DSSS F_{HIGH}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

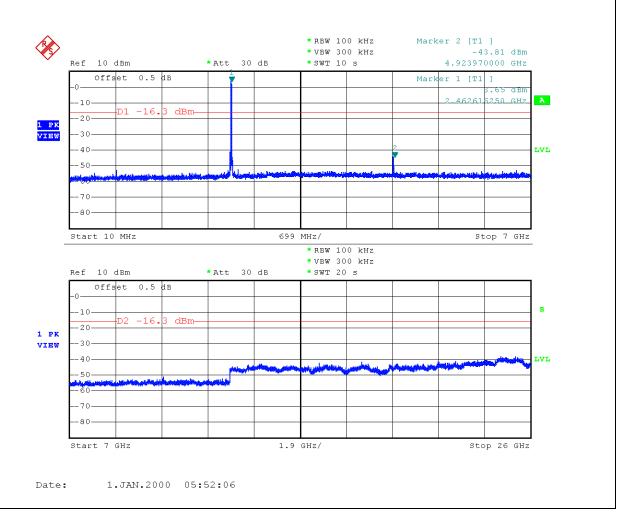
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11b, 1Mbps, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - OFDM FLOW

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

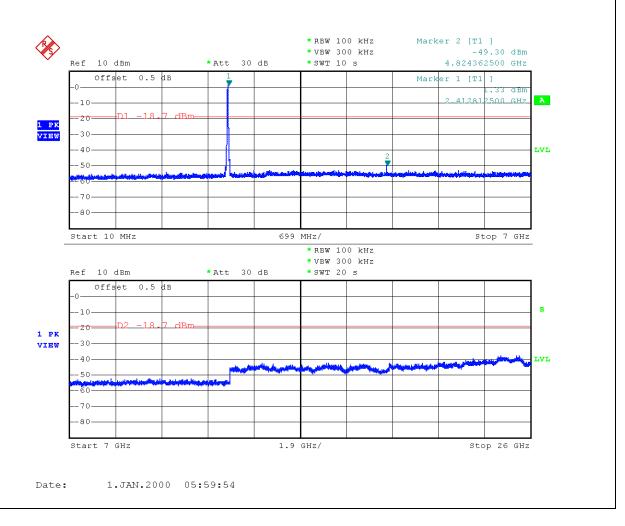
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6Mbps, 2412 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - OFDM F_{MID}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

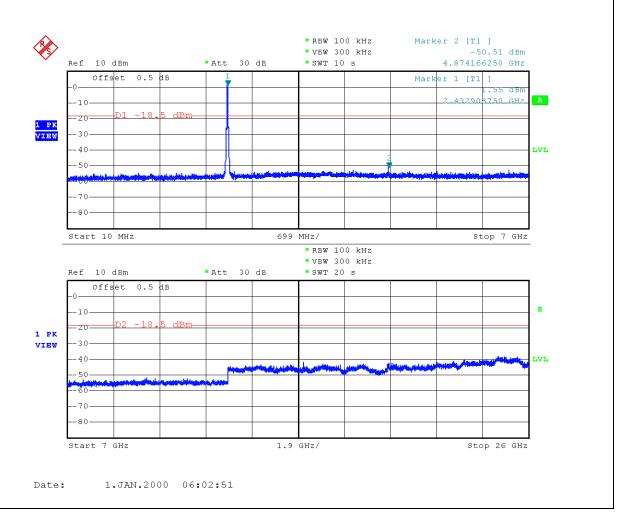
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6Mbps, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - OFDM F_{HIGH}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

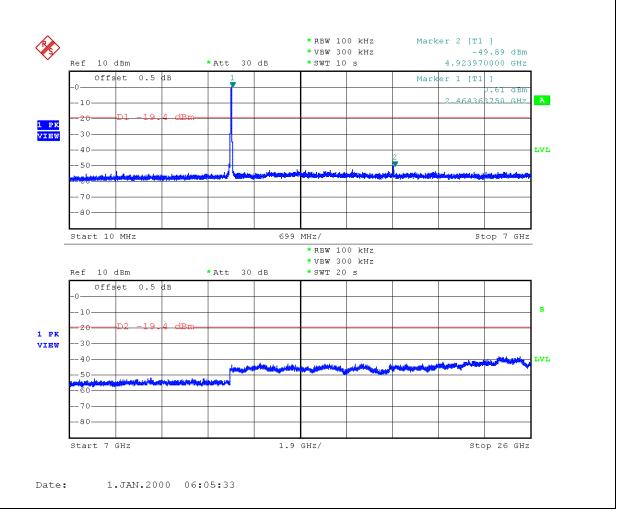
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11g, 6Mbps, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - HT20 F_{LOW}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

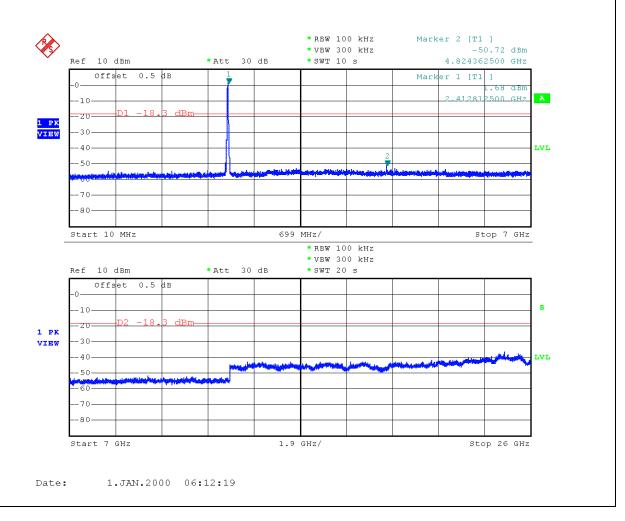
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2412 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - HT20 F_{MID}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

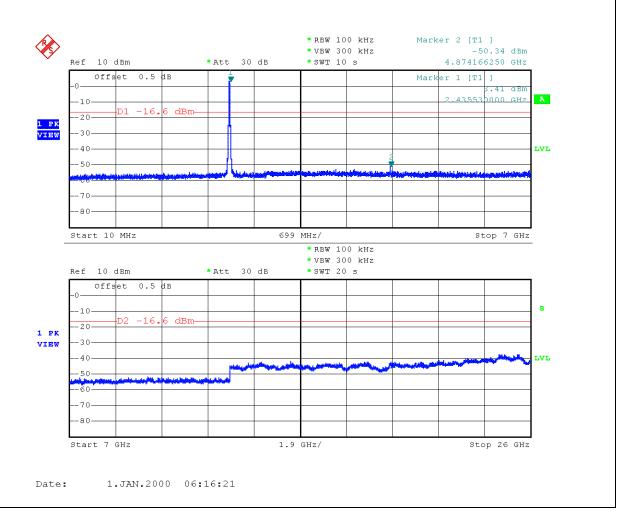
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - HT20 F_{HIGH}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

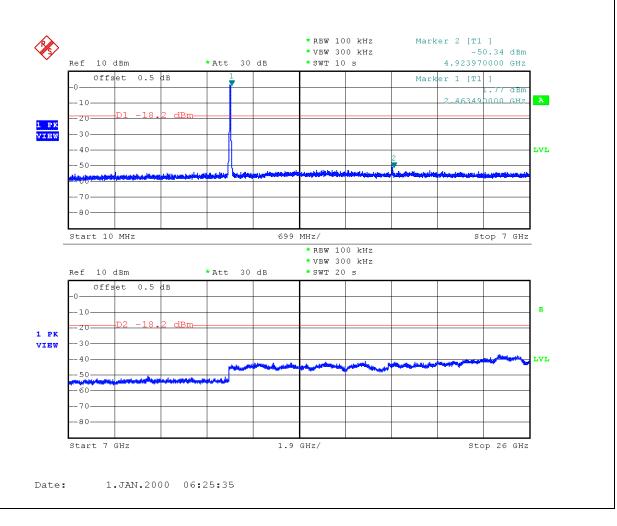
Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT20, 2462 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS





Conducted spurious emissions - HT40 F_{LOW}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

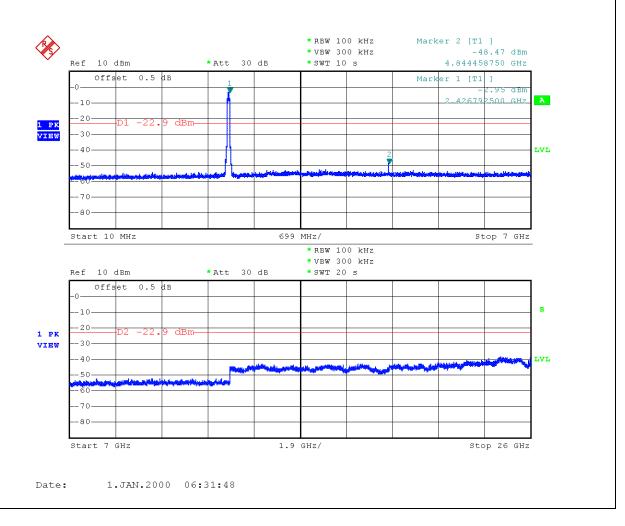
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke
Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2422 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: conducted measurement





Conducted spurious emissions - HT40 F_{MID}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

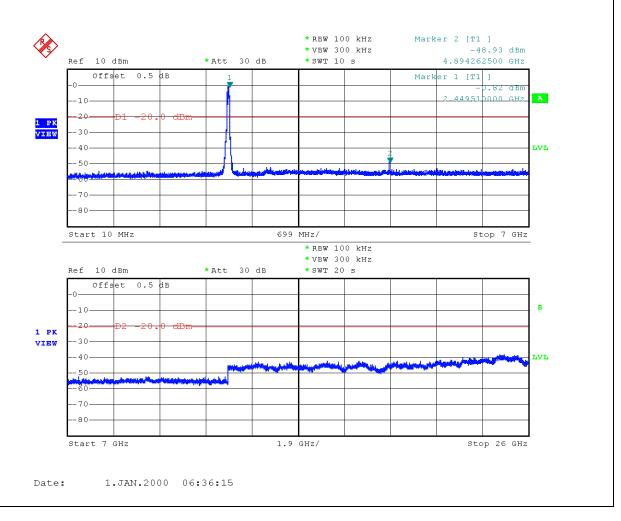
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke
Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2437 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: conducted measurement





Conducted spurious emissions - HT40 F_{HIGH}

Spurious Emissions acc. to FCC 15.247

Project Number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

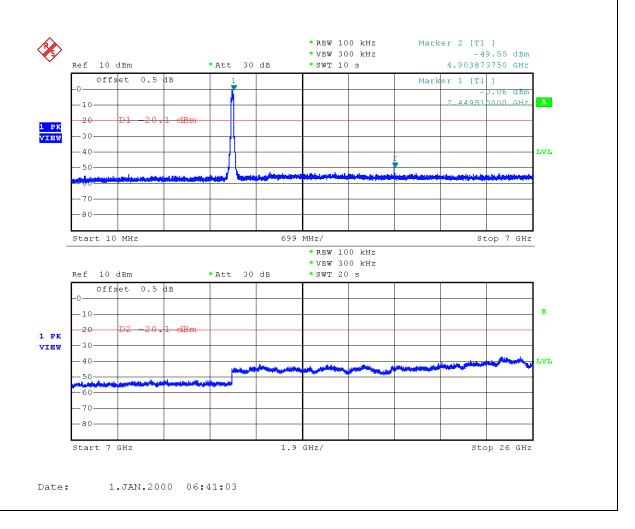
Test Site: Eurofins Product Service GmbH

Operator: Wilfried Treffke Test Conditions: Tnom / Vnom

Mode: Tx, IEEE 802.11n, HT40, 2452 MHz, modulated

Test Date: 2015-04-24 Verdict: PASS

Note 1: conducted measurement



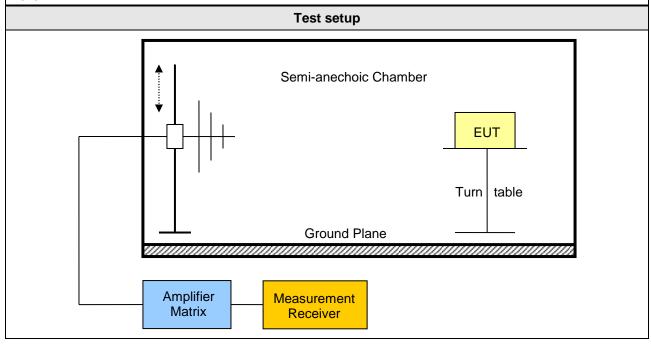


3.8 Test Conditions and Results - Transmitter radiated emissions

Transmitter radiated emissions acc. to FCC 47 CFR 15.247 / IC RSS-247 Verdict: PA								
Test according refe	renced	Reference Method						
standards		FCC 15	247(d) / IC R	SS-247 5.5				
Test according	to	F	Reference Me	thod				
measurement refe		ANSI C63.10						
Tarkford		Tested frequencies						
Test frequency ra	ange	30 MHz – 10 th Harmonic						
		Limits						
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]				
30 – 88	Quasi-Peak	100	40	3				
88 – 216	88 – 216 Quasi-Peak		43.5	3				
216 – 960	216 – 960 Quasi-Peak		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 Report No.: G0M-1503-4620-TFC247WF-V01



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 DSSS									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F _{LOW}	2412	DSSS	240.208	23.86	pk	hor	46.00	3	-22.14
F _{LOW}	2412	DSSS	2387	52.39	pk	hor	74.00	3	-21.61
F _{LOW}	2412	DSSS	2387	42.51	RMS	hor	54.00	3	-11.49
F _{LOW}	2412	DSSS	2387	58.77	pk	ver	74.00	3	-15.23
F _{LOW}	2412	DSSS	2387	47.48	RMS	ver	54.00	3	-06.52
F _{LOW}	2412	DSSS	4824	47.87	pk	hor	74.00	1	-26.13
F _{LOW}	2412	DSSS	4824	46.11	avg	hor	54.00	1	-07.89
F _{LOW}	2412	DSSS	4824	48.64	pk	ver	74.00	1	-25.36
F _{LOW}	2412	DSSS	4824	47.06	avg	ver	54.00	1	-06.94
F _{MID}	2437	DSSS	4874	50.47	pk	hor	74.00	1	-23.53
F _{MID}	2437	DSSS	4874	48.99	avg	hor	54.00	1	-05.01
F _{MID}	2437	DSSS	4874	51.15	pk	ver	74.00	1	-22.85
F _{MID}	2437	DSSS	4874	49.73	avg	ver	54.00	1	-04.27
F _{HIGH}	2462	DSSS	4924	53.78	pk	hor	74.00	1	-20.22
F _{HIGH}	2462	DSSS	4924	52.46	avg	hor	54.00	1	-01.54
F _{HIGH}	2462	DSSS	4924	53.61	pk	ver	74.00	1	-20.39
F _{HIGH}	2462	DSSS	4924	52.48	avg	ver	54.00	1	-01.52
Comments:	Comments: * Physical distance between EUT and measurement antenna.								

Test Report No.: G0M-1503-4620-TFC247WF-V01



Product Service

Test results HT20									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F_{LOW}	2412	HT20	2390	69.75	pk	hor	74.00	3	-04.25
F_{LOW}	2412	HT20	2390	47.47	RMS	hor	54.00	3	-06.53
F _{LOW}	2412	HT20	2390	67.51	pk	ver	74.00	3	-06.49
F _{LOW}	2412	HT20	2390	48.85	RMS	ver	54.00	3	-05.15
F _{LOW}	2412	HT20	4821	50.29	pk	ver	74.00	1	-23.71
F _{LOW}	2412	HT20	4821	39.20	avg	ver	54.00	1	-14.80
F _{MID}	2437	HT20	2485.7	51.72	pk	hor	74.00	3	-22.28
F _{MID}	2437	HT20	2485.7	30.28	avg	hor	54.00	3	-23.72
F _{MID}	2437	HT20	4880	41.97	pk	hor	74.00	1	-32.03
F _{MID}	2437	HT20	4881	52.23	pk	ver	74.00	1	-21.77
F _{MID}	2437	HT20	4881	41.38	avg	ver	54.00	1	-12.62
F _{HIGH}	2462	HT20	2483.6	68.81	pk	hor	74.00	1	-05.19
F _{HIGH}	2462	HT20	2483.6	50.79	RMS	hor	54.00	1	-03.21
F _{HIGH}	2462	HT20	4920	42.28	pk	hor	74.00	3	-31.72
F _{HIGH}	2462	HT20	4925	52.30	pk	ver	74.00	3	-21.70
F _{HIGH}	2462	HT20	4925	40.40	avg	ver	54.00	3	-13.60



Product Service

Test results HT40									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F _{LOW}	2422	HT40	2389	70.73	pk	ver	74.00	3	-03.27
F _{LOW}	2422	HT40	2389	48.84	RMS	ver	54.00	3	-05.16
F _{LOW}	2422	HT40	2390	71.26	pk	hor	74.00	3	-02.74
F _{LOW}	2422	HT40	2390	48.03	RMS	hor	54.00	3	-05.97
F _{LOW}	2422	HT40	4840	37.85	pk	hor	74.00	1	-36.15
F _{LOW}	2422	HT40	4840	44.05	pk	ver	74.00	1	-29.95
F _{MID}	2437	HT40	2388.8	64.22	pk	hor	74.00	3	-09.78
F _{MID}	2437	HT40	2388.8	62.28	pk	ver	74.00	3	-11.72
F _{MID}	2437	HT40	2483.5	62.09	pk	hor	74.00	3	-11.91
F _{MID}	2437	HT40	4894	50.16	pk	ver	74.00	1	-23.84
F _{MID}	2437	HT40	4894	38.40	avg	ver	54.00	1	-15.60
F _{MID}	2437	HT40	4904	39.57	pk	hor	74.00	1	-34.43
F _{HIGH}	2452	HT40	2380	55.08	pk	ver	74.00	3	-18.92
F _{HIGH}	2452	HT40	2389	57.63	pk	hor	74.00	3	-16.37
F _{HIGH}	2452	HT40	2389	51.85	pk	ver	74.00	3	-22.15
F _{HIGH}	2452	HT40	2399	65.34	pk	hor	95.00	3	-29.66
F _{HIGH}	2452	HT40	2483.5	70.24	pk	hor	74.00	3	-03.76
F _{HIGH}	2452	HT40	2483.5	52.56	RMS	hor	54.00	3	-01.44
F _{HIGH}	2452	HT40	2483.6	66.85	pk	ver	74.00	3	-07.15
F _{HIGH}	2452	HT40	2483.6	45.84	RMS	ver	54.00	3	-08.16
F _{HIGH}	2452	HT40	2486.7	72.38	pk	hor	74.00	3	-01.62
F _{HIGH}	2452	HT40	2486.7	51.73	RMS	hor	54.00	3	-02.27
F _{HIGH}	2452	HT40	2486.8	67.24	pk	ver	74.00	3	-06.76
F _{HIGH}	2452	HT40	2486.8	44.61	RMS	ver	54.00	3	-09.39
F _{HIGH}	2452	HT40	2501	62.16	pk	hor	95.00	3	-32.84
F _{HIGH}	2452	HT40	2503	54.54	pk	ver	95.00	1	-40.46
F _{HIGH}	2452	HT40	4924	46.79	pk	ver	74.00	1	-27.21
F _{HIGH}	2452	HT40	4924	35.53	avg	ver	54.00	1	-18.47
Comments:	* Physical dis	tance between	EUT and meas	surement ant	enna.	•			

Test Report No.: G0M-1503-4620-TFC247WF-V01



Matrix

3.9 Test Conditions and Results - Receiver radiated emissions

Receiver radiated emiss	sions acc. to	o IC	RSS-247		Verdict: PASS	
Test according refere	nced	Reference Method				
standards				IC RSS-247 3.1		
	Test according to			Reference Method		
measurement refere	ence			ANSI C63.10		
Test frequency ran	ne			Tested frequencies		
rest frequency fair	ge .		3	0 MHz – 5 th Harmonic	;	
EUT test mode				Receive		
			Limits			
Frequency range [MHz]	Detector	,	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]	
30 – 88	Quasi-Pea		100	40	3	
88 – 216	38 – 216 Quasi-Pea		150	43.5	3	
216 – 960	Quasi-Pea	ak	200	46	3	
960 – 1000	Quasi-Pea	ak	500	54	3	
> 1000	Average		500	54	3	
			Test setup			
♣			Semi-anechoic Ch	amber EUT Turn tabl		
Ar	mplifier	N	Measurement			

Receiver



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									
Frequency [MHz]	Emission [MHz]	Emission Level [dBµV/m]	Det.	Pol.	Limit [dBµV/m]	Margin [dBµV/m]			
2427	681.6	23.50	pk	hor	46.00	-22.5 dB			
2427	904	24.22	pk	ver	46.00	-21.78 dB			
2427	3736	40.02	pk	hor	53.98	-13.96 dB			
2427	7432	48.76	pk	hor	53.98	-5.22 dB			
	[MHz] 2427 2427 2427	[MHz] [MHz] 2427 681.6 2427 904 2427 3736	Frequency [MHz] Emission [dBμV/m] 2427 681.6 23.50 2427 904 24.22 2427 3736 40.02	Frequency [MHz] Emission [dBμV/m] Det. 2427 681.6 23.50 pk 2427 904 24.22 pk 2427 3736 40.02 pk	Frequency [MHz] Emission [dBμV/m] Det. Pol. 2427 681.6 23.50 pk hor 2427 904 24.22 pk ver 2427 3736 40.02 pk hor	Frequency [MHz] Emission [dBμV/m] Det. Pol. Limit [dBμV/m] 2427 681.6 23.50 pk hor 46.00 2427 904 24.22 pk ver 46.00 2427 3736 40.02 pk hor 53.98			

Comments:



ANNEX A Transmitter radiated spurious emissions

Spurious emissions according to FCC 15.247

Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

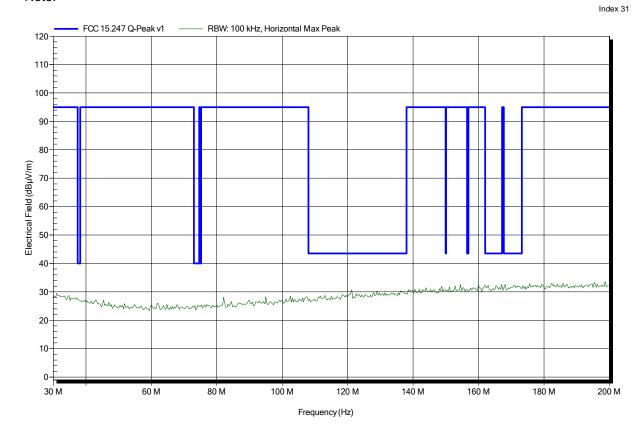
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

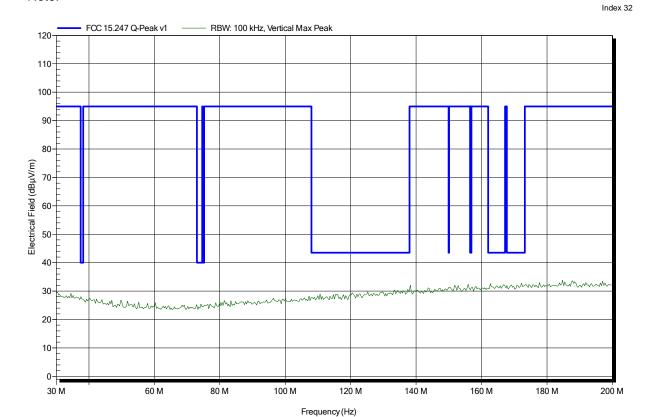
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 n

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 r

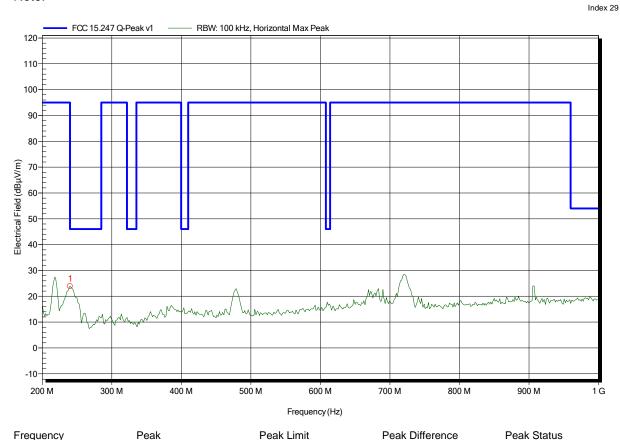
Mode: TX; DSSS; 1Mbps; 2412 MHz

23.86 dBµV/m

Test Date: 2015-04-21

Note:

240.208 MHz



46 dBµV/m

-22.14 dB

Test Report No.: G0M-1503-4620-TFC247WF-V01

Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

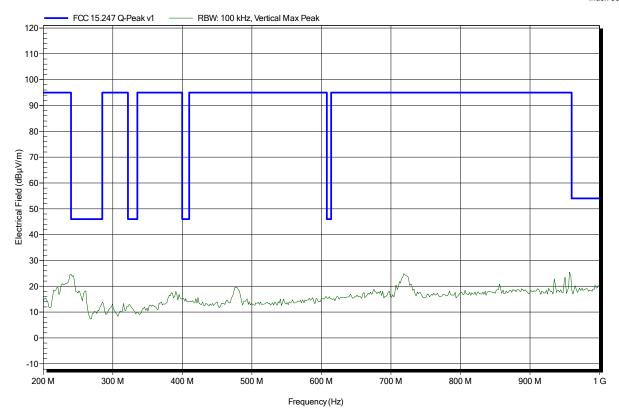
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 r

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

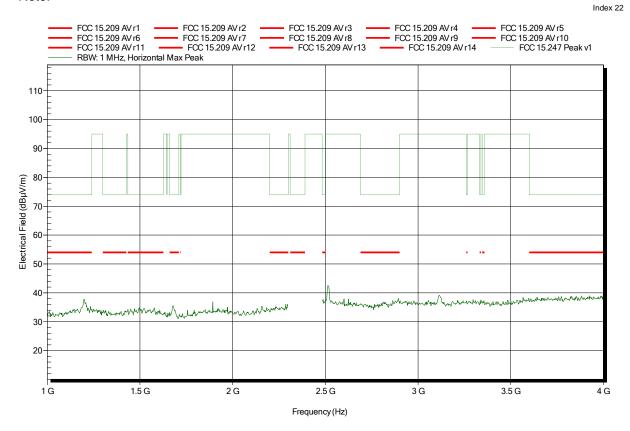
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

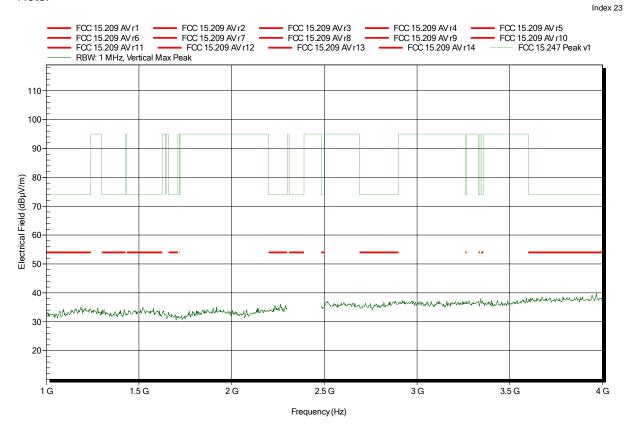
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

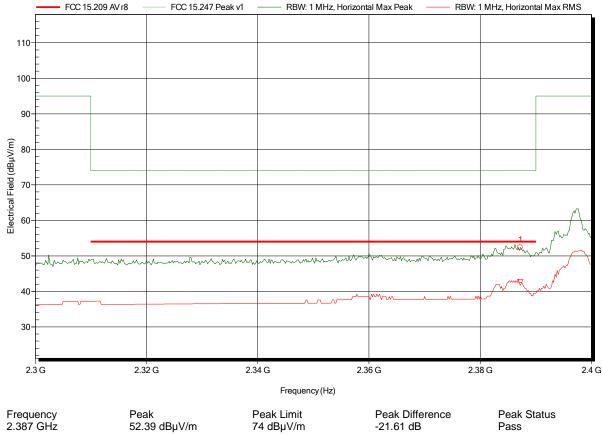
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21 Note: lower bandedge

Index 1



Frequency RMS RMS Limit RMS Difference RMS Status 2.387 GHz 42.51 dB μ V/m 54 dB μ V/m -11.49 dB Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

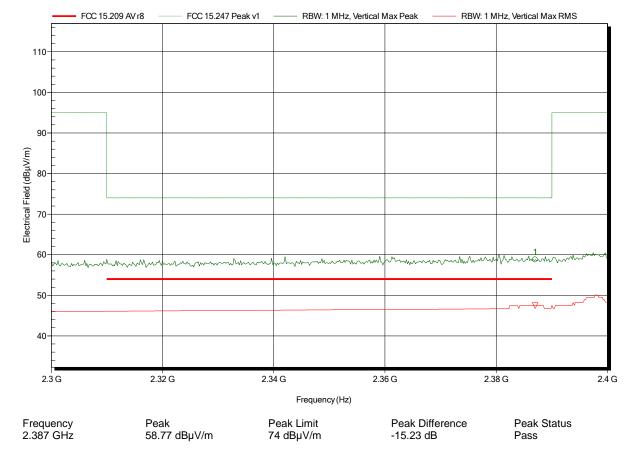
Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21
Note: lower bandedge

RMS

47.48 dBµV/m

Frequency 2.387 GHz Index 5



RMS Limit

54 dBµV/m

RMS Difference

-6.52 dB

RMS Status

Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

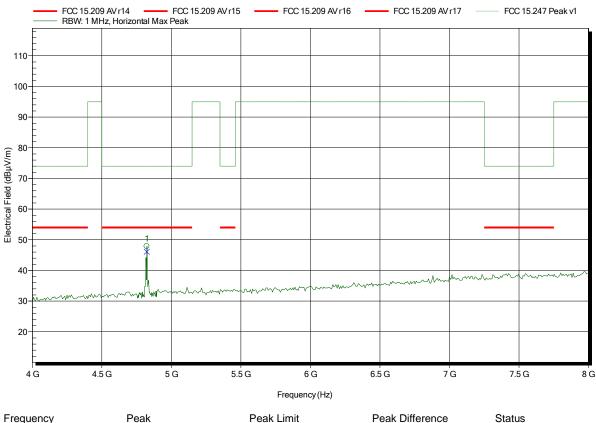
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21

Note:



4.824 GHz $47.87 \, dB\mu V/m$ $74 \, dB\mu V/m$ $-26.13 \, dB$ Pass Frequency Average Average Limit Average Difference Average Status $4.824 \, GHz$ $46.11 \, dB\mu V/m$ $54 \, dB\mu V/m$ $-7.89 \, dB$ Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

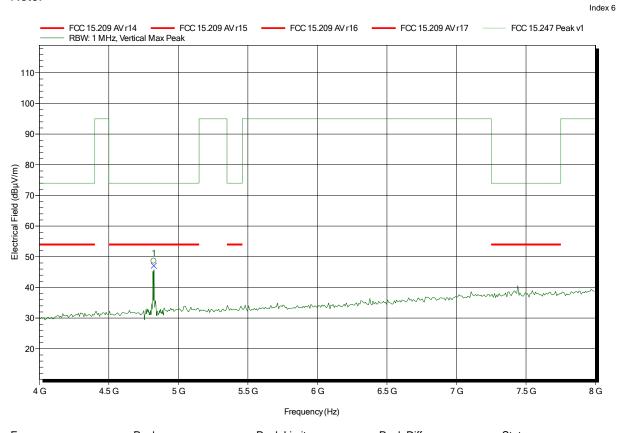
Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21

Note:



Peak Difference Frequency Peak Peak Limit Status 4.824 GHz 48.64 dBµV/m $74 \text{ dB}\mu\text{V/m}$ -25.36 dB Pass Average Limit 54 dBµV/m Average Average Difference Average Status Frequency -6.94 dB 4.824 GHz 47.06 dBµV/m Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

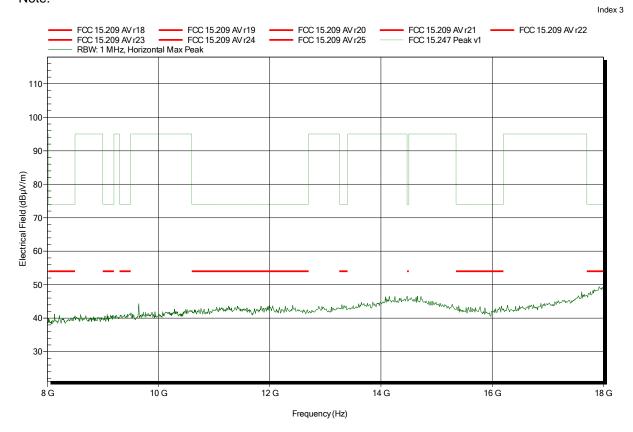
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

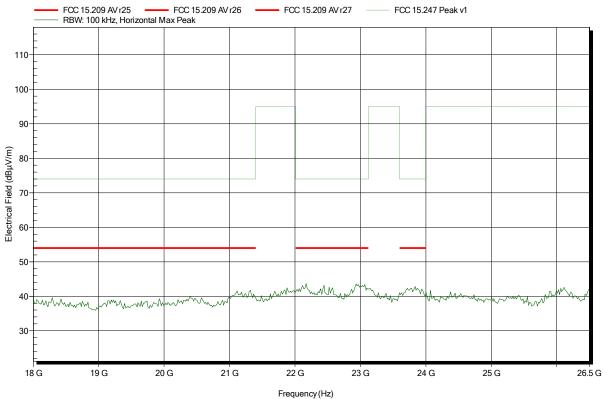
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21







Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

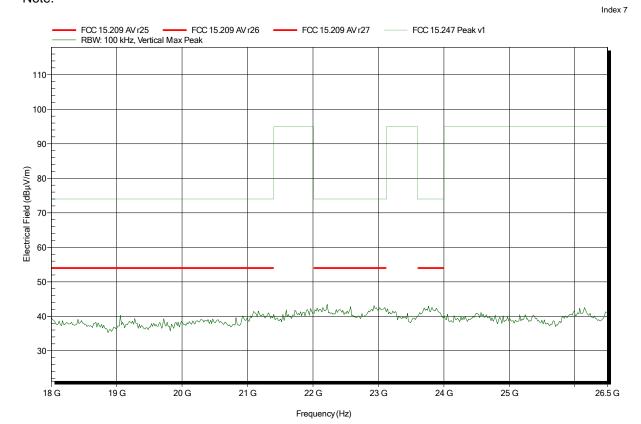
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

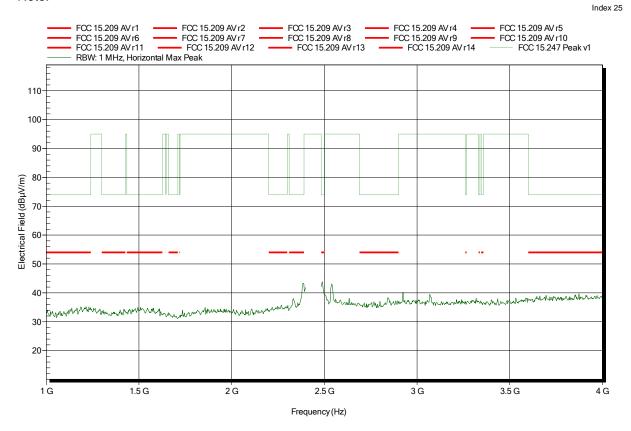
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

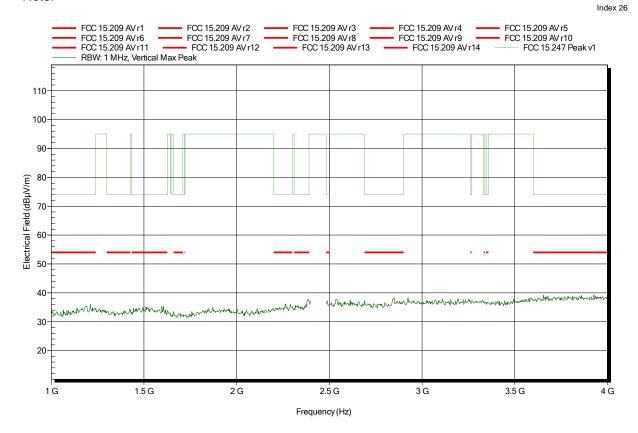
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

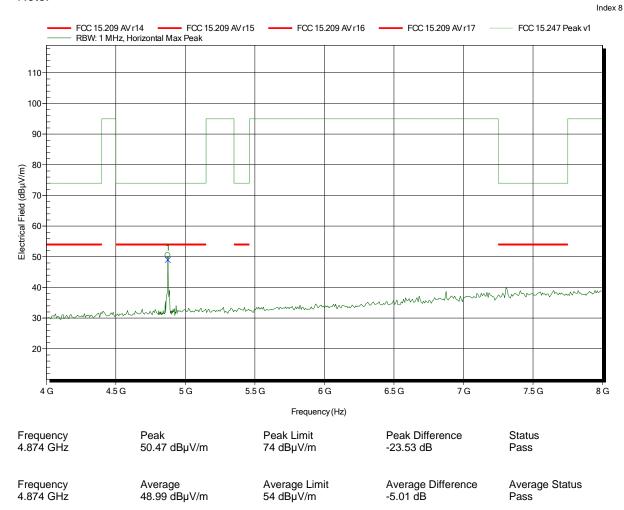
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

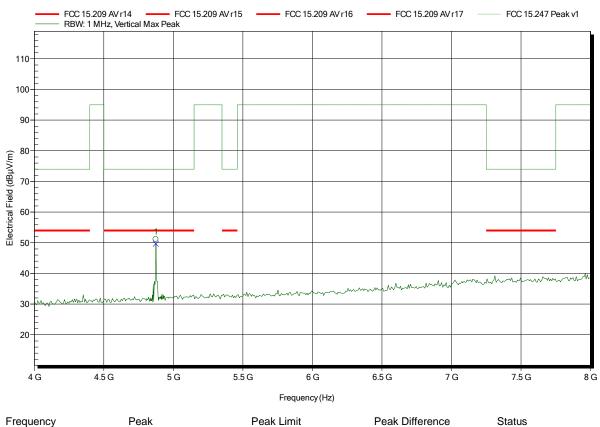
Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

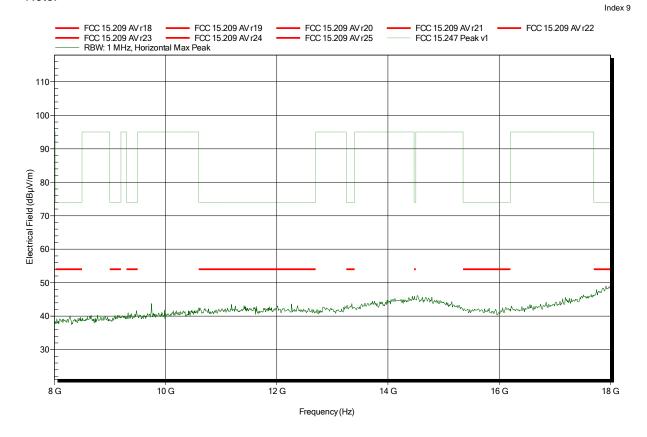
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

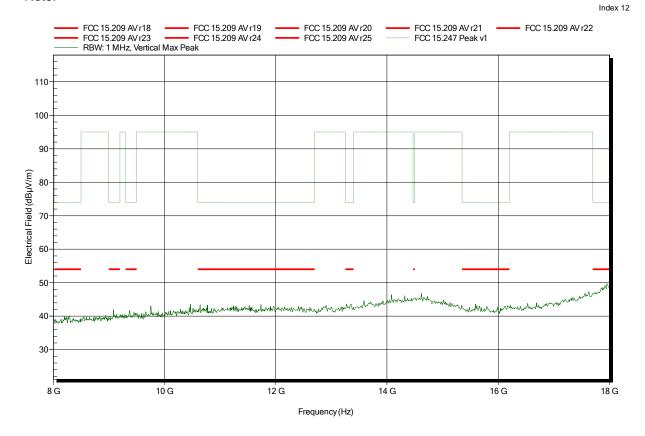
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

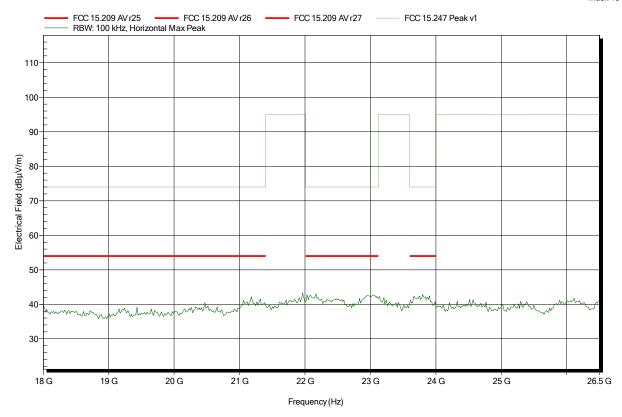
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

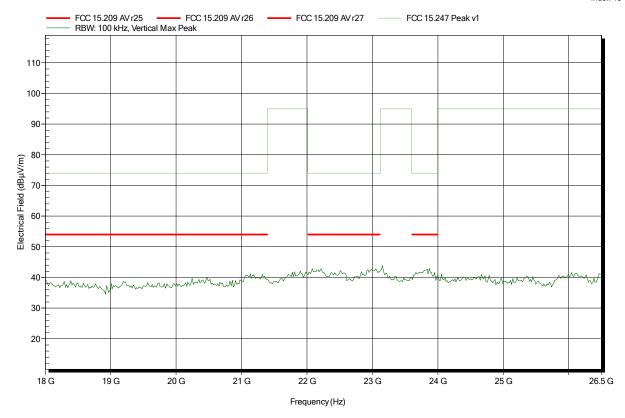
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2437 MHz

Test Date: 2015-04-21

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

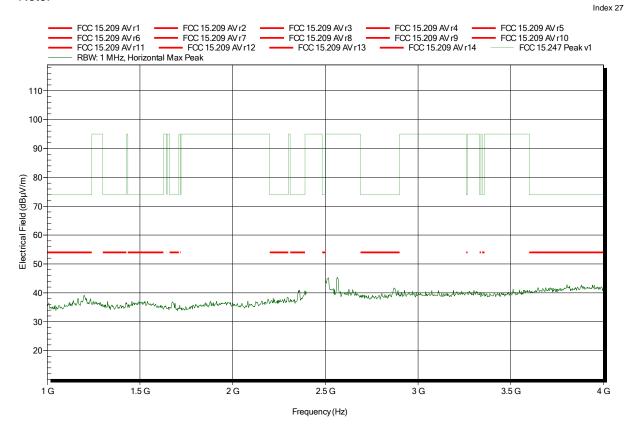
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

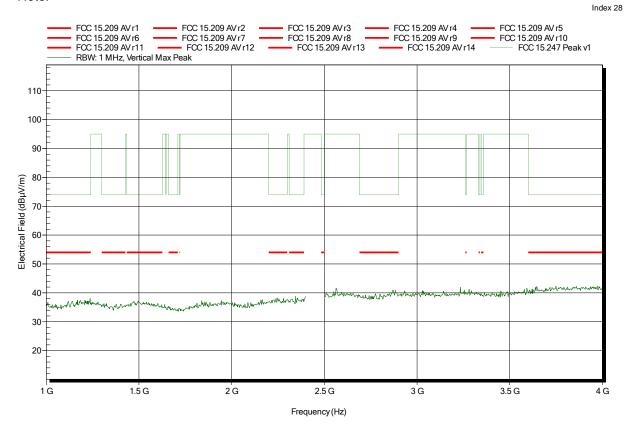
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

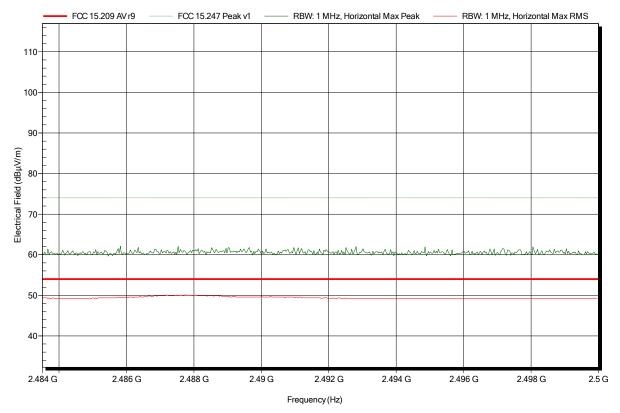
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21 Note: upper bandedge





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

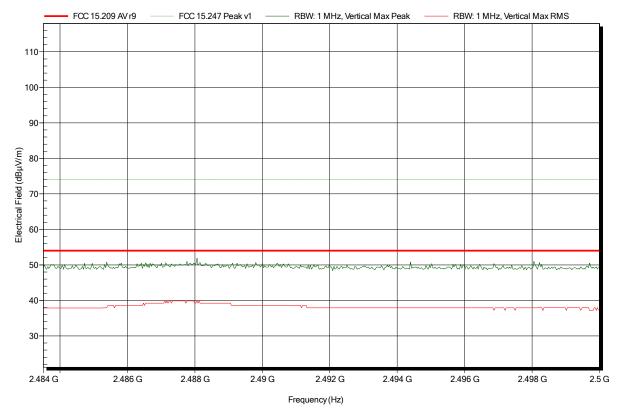
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21 Note: upper bandedge





Project number: G0M-1503-4620

Applicant: **BARTEC PIXAVI AS**

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

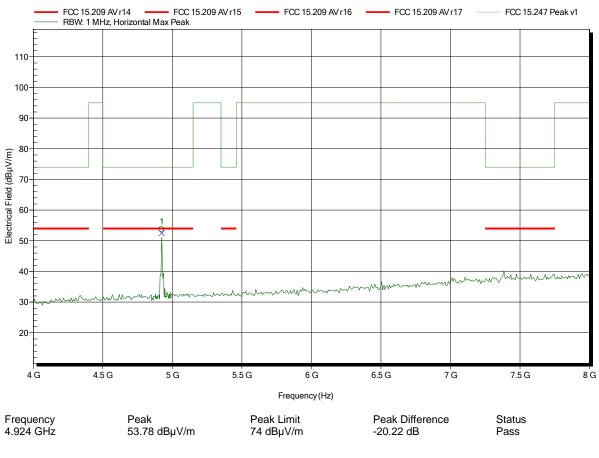
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Schwarzbeck BBHA 9120D, Horizontal Antenna:

Measurement distance: 1 m converted to 3m

TX; DSSS; 1Mbps; 2462 MHz Mode:

Test Date: 2015-04-21

Note:



4.924 GHz	53.78 dBµV/m	74 dBμV/m	-20.22 dB	Pass
Frequency	Average	Average Limit	Average Difference	Average Status
4.924 GHz	52.46 dBµV/m	54 dBµV/m	-1.54 dB	Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

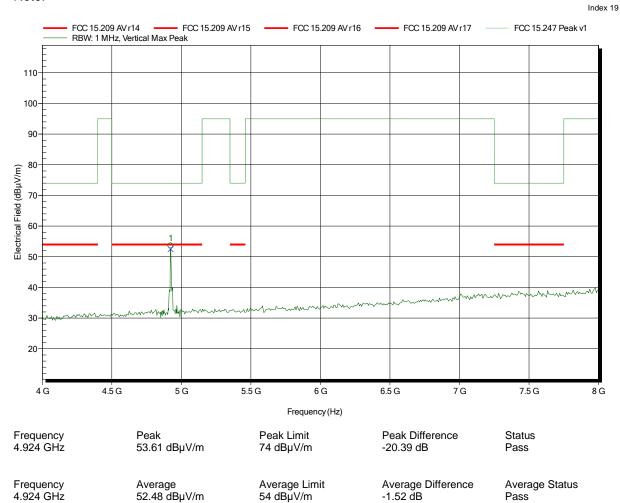
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

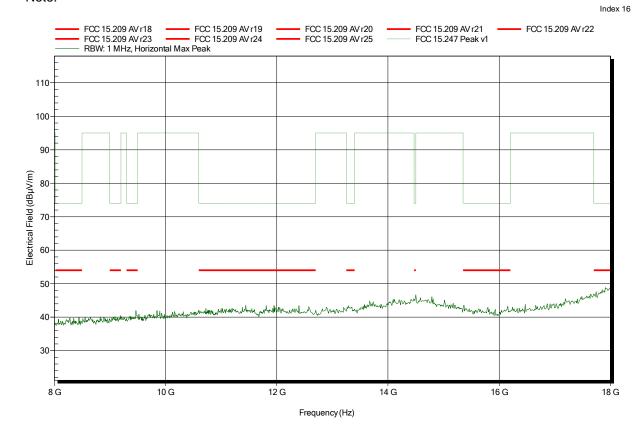
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

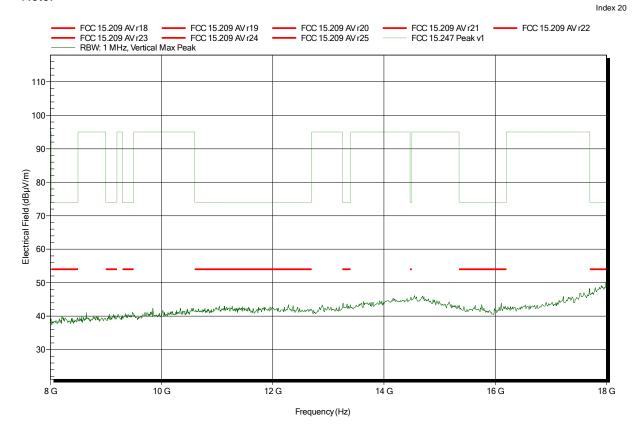
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21

Note:

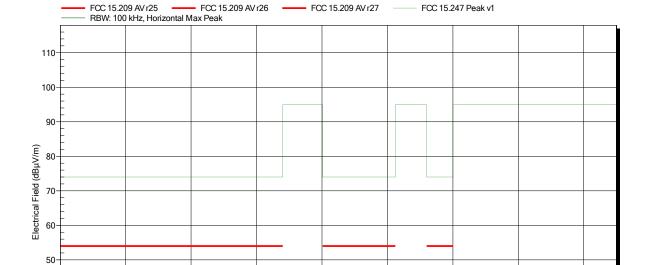
30

18 G

19 G

20 G

21 G



22 G

Frequency (Hz)

23 G

24 G

25 G

Test Report No.: G0M-1503-4620-TFC247WF-V01

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26.5 G



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

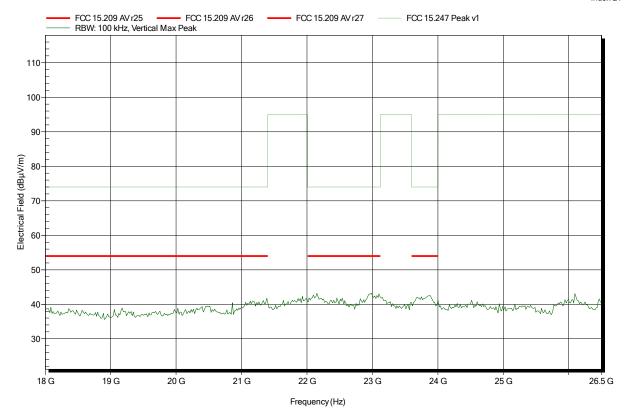
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; DSSS; 1Mbps; 2462 MHz

Test Date: 2015-04-21

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

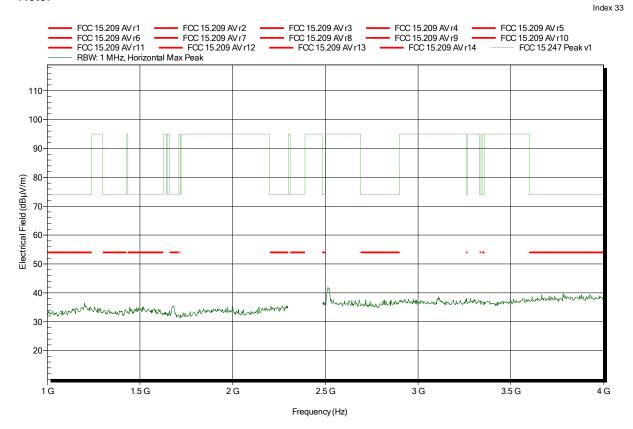
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; HT20; MCS0; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

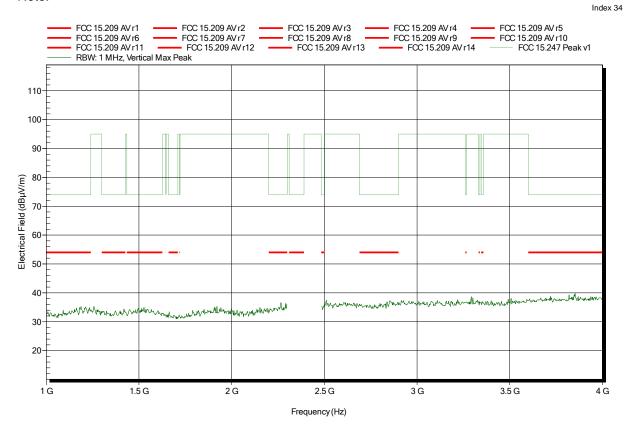
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; HT20; MCS0; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

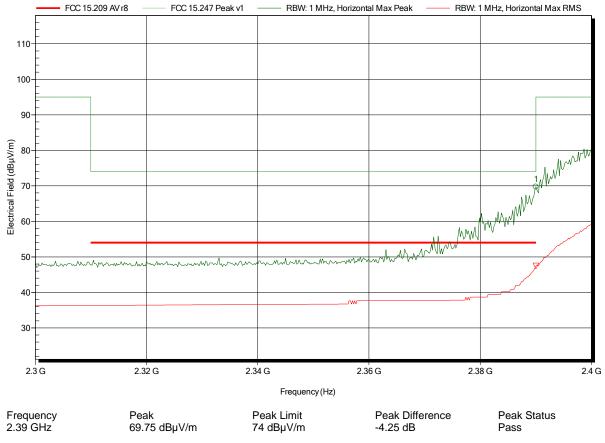
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2412 MHz

Test Date: 2015-04-21 Note: lower bandedge



2.39 GHz	Реак 69.75 dBµV/m	74 dBµV/m	-4.25 dB	Peak Status Pass
Frequency	RMS	RMS Limit	RMS Difference	RMS Status
2.39 GHz	47.47 dBµV/m	54 dBµV/m	-6.53 dB	Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

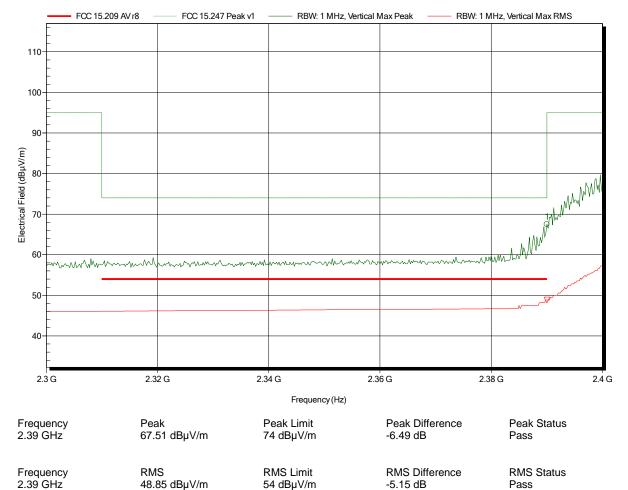
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2412 MHz

Test Date: 2015-04-21 Note: lower bandedge





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

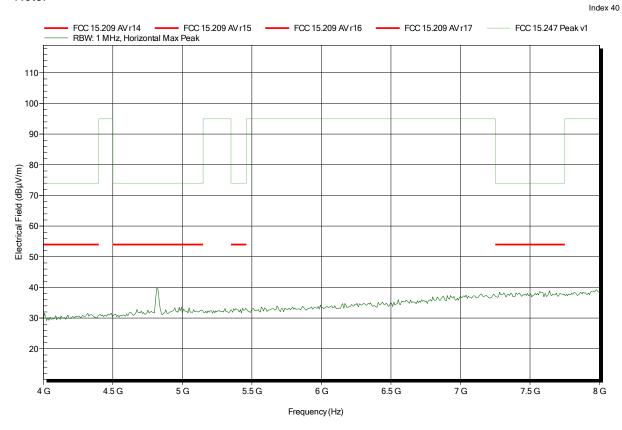
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2412 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

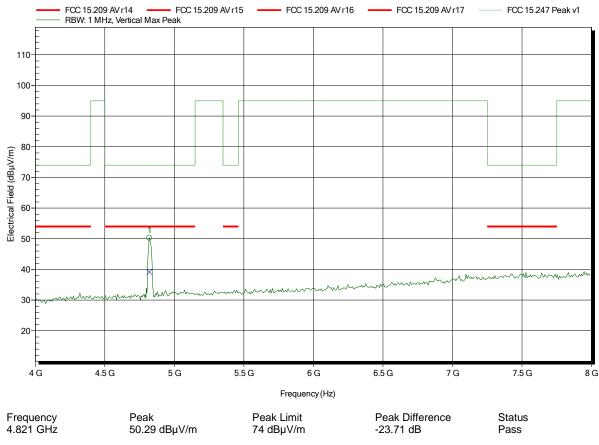
Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2412 MHz

Test Date: 2015-04-21

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

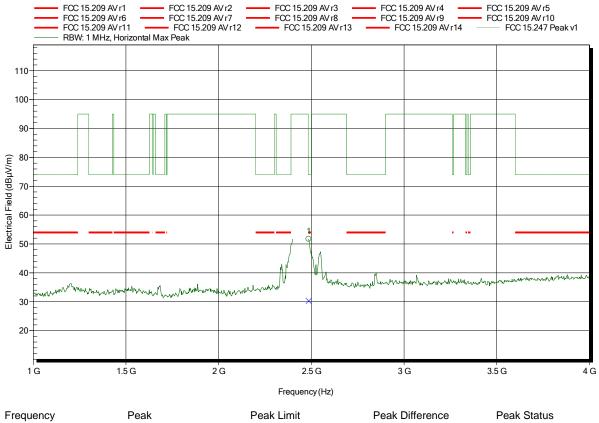
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; HT20; MCS0; 2437 MHz

Test Date: 2015-04-21

Note:



2.4857 GHz	51.72 dBμV/m	74 dBµV/m	-22.28 dB	Pass
Frequency	Average	Average Limit	Average Difference	Average Status
2.4857 GHz	30.28 dBµV/m	54 dBµV/m	-23.72 dB	Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

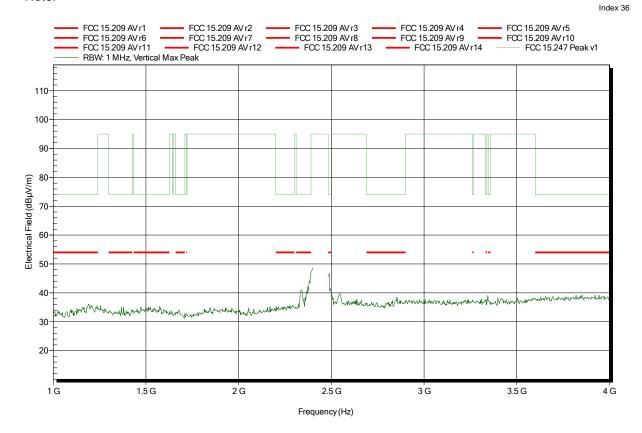
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; HT20; MCS0; 2437 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

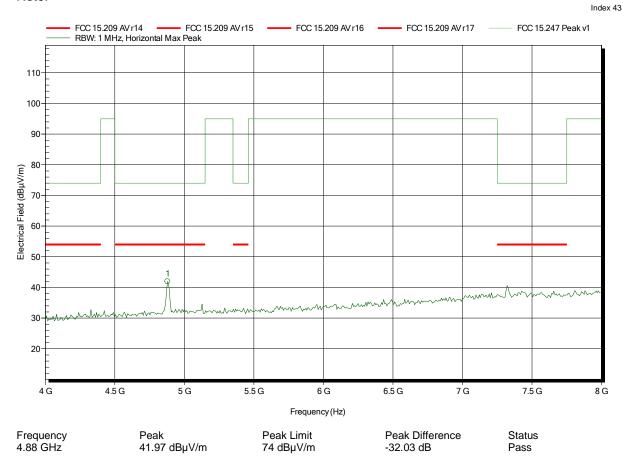
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2437 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

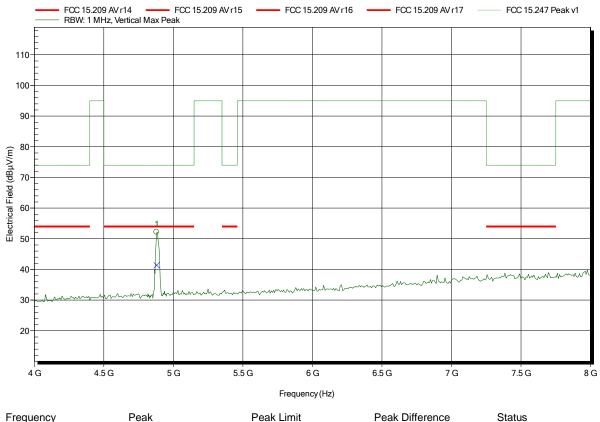
Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2437 MHz

Test Date: 2015-04-21

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

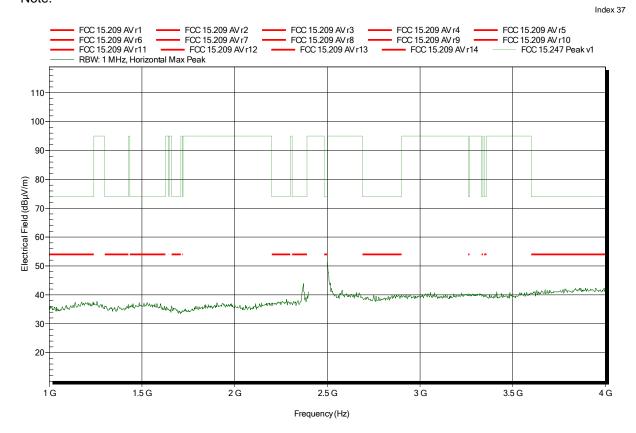
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; HT20; MCS0; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

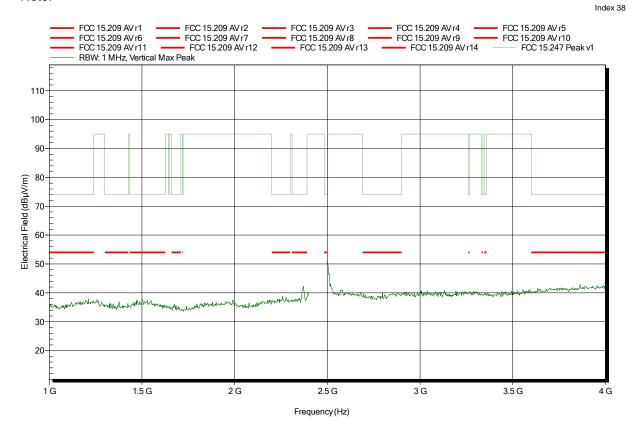
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; HT20; MCS0; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

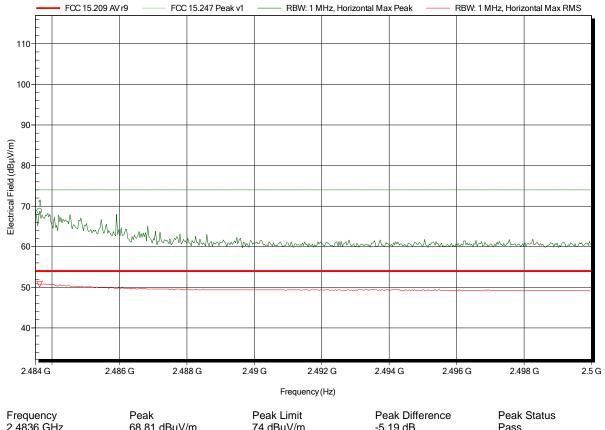
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2462 MHz

Test Date: 2015-04-21 Note: upper bandedge

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Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

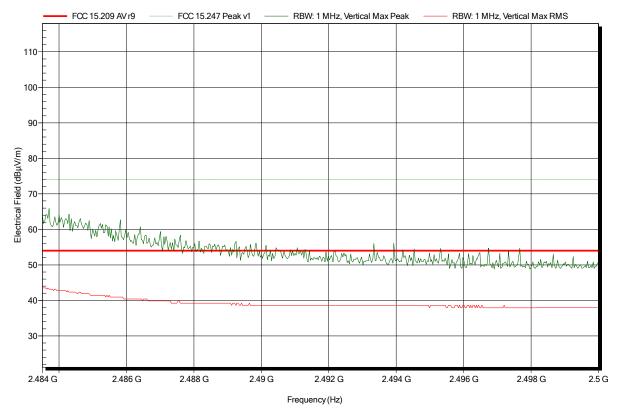
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2462 MHz

Test Date: 2015-04-21 Note: upper bandedge





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

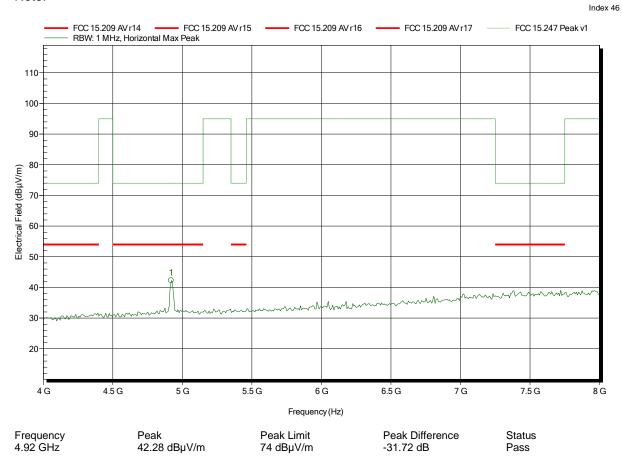
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT20; MCS0; 2462 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: **BARTEC PIXAVI AS**

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Tnom: 25°C, Vnom: 3.7 V DC lithium battery **Test Conditions:**

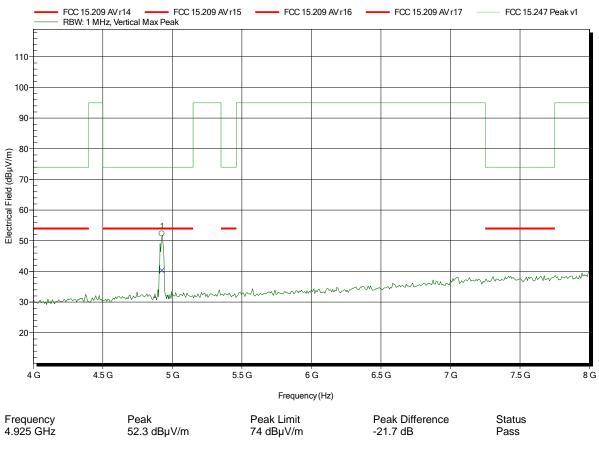
Schwarzbeck BBHA 9120D, Vertical Antenna:

Measurement distance: 1 m converted to 3m

TX; HT20; MCS0; 2462 MHz Mode:

Test Date: 2015-04-21

Note:



4.925 GHz	52.3 dBµV/m	74 dBμV/m	-21.7 dB	Pass
Frequency	Average	Average Limit	Average Difference	Average Status
4.925 GHz	40.4 dBµV/m	54 dBµV/m	-13.6 dB	Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

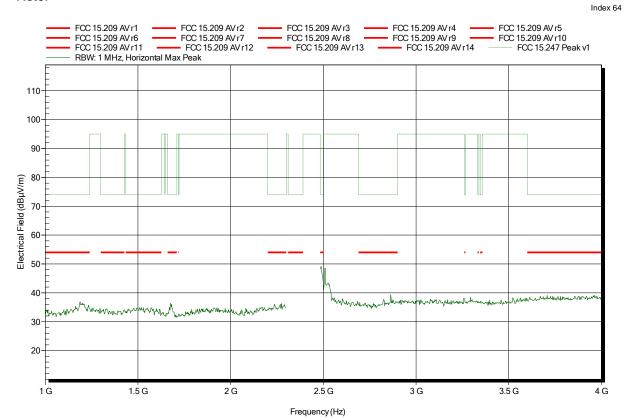
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; HT40; MCS0; 2422 MHz

Test Date: 2015-04-22





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

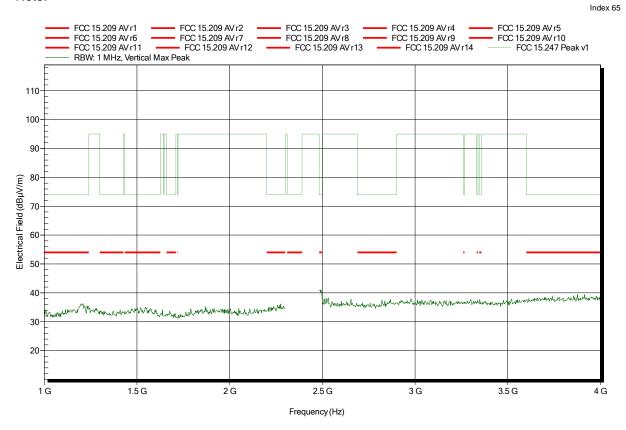
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; HT40; MCS0; 2422 MHz

Test Date: 2015-04-22





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

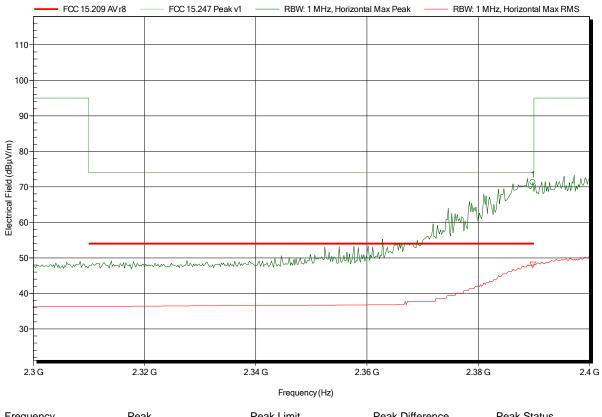
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2422 MHz

Test Date: 2015-04-21 Note: lower bandedge

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Peak Difference Peak Status Frequency Peak Peak Limit 2.39 GHz 71.26 dBµV/m 74 dBµV/m -2.74 dB **Pass RMS** RMS Limit **RMS Difference RMS Status** Frequency 2.39 GHz 48.03 dBµV/m 54 dBµV/m -5.97 dB Pass



Project number: G0M-1503-4620

Frequency 2.389 GHz

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

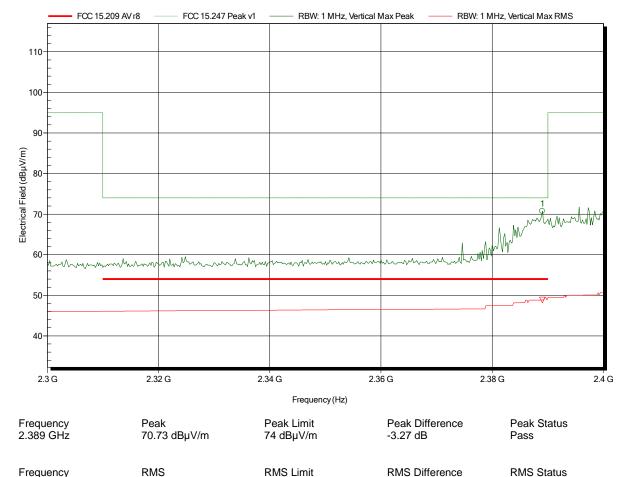
Measurement distance: 1 m converted to 3m

48.84 dBµV/m

Mode: TX; HT40; MCS0; 2422 MHz

Test Date: 2015-04-21 Note: lower bandedge

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-5.16 dB

54 dBµV/m

Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

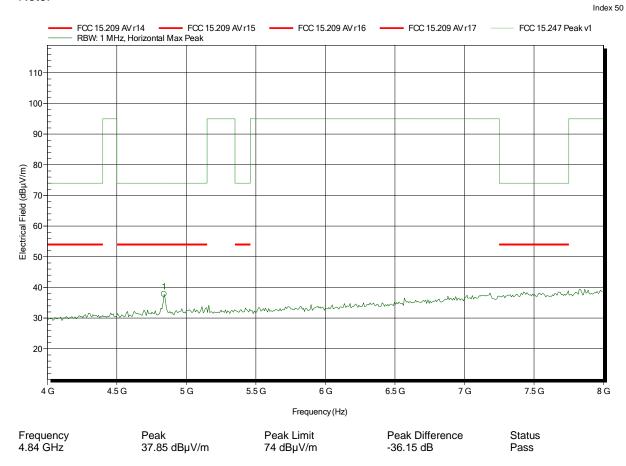
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2422 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

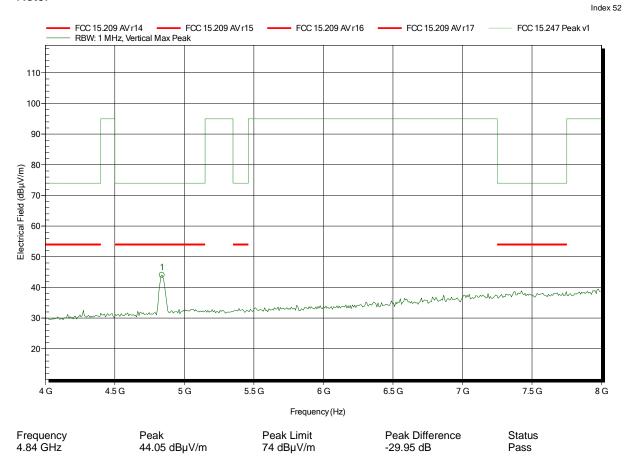
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2422 MHz

Test Date: 2015-04-21





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

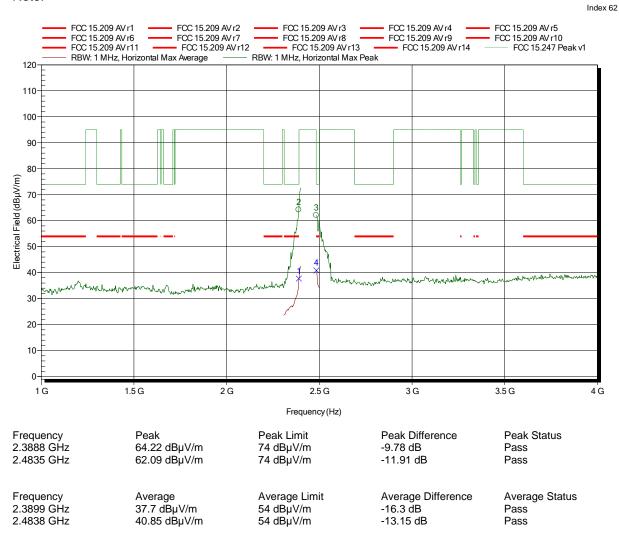
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; HT40; MCS0; 2437 MHz

Test Date: 2015-04-22





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

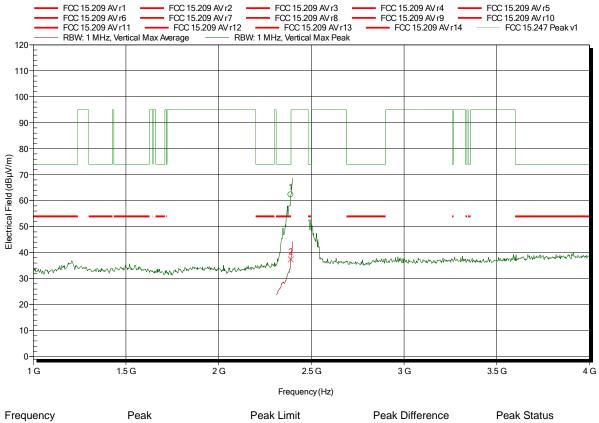
Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; HT40; MCS0; 2437 MHz

Test Date: 2015-04-22

Note:



Frequency	Peak	Peak Limit	Peak Difference	Peak Status
2.3888 GHz	62.28 dBµV/m	74 dBμV/m	-11.72 dB	Pass
Frequency	Average	Average Limit	Average Difference	Average Status
2.3894 GHz	37.4 dBµV/m	54 dBµV/m	-16.6 dB	Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

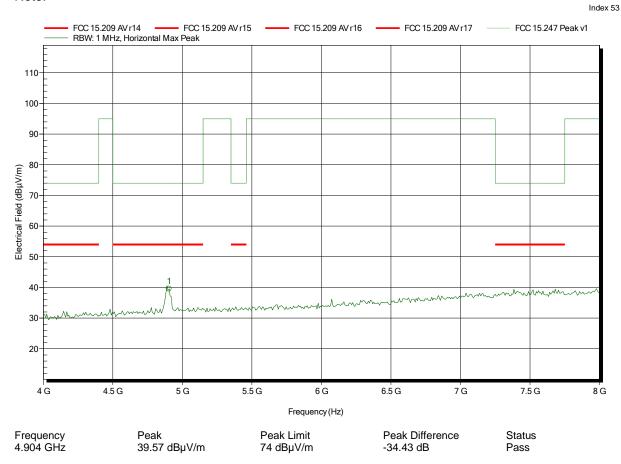
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2437 MHz

Test Date: 2015-04-22





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

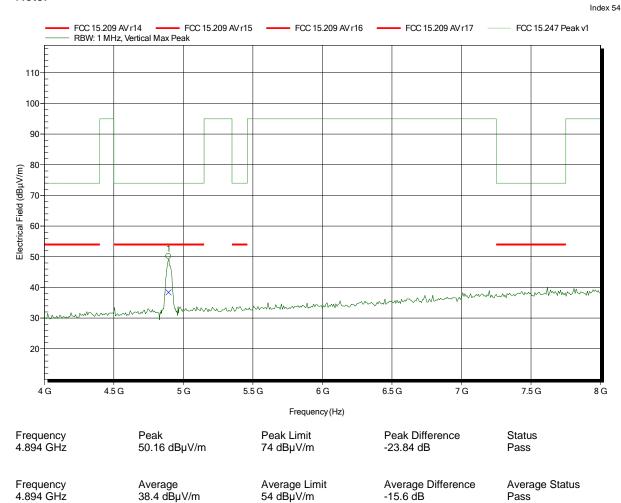
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2437 MHz

Test Date: 2015-04-22





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

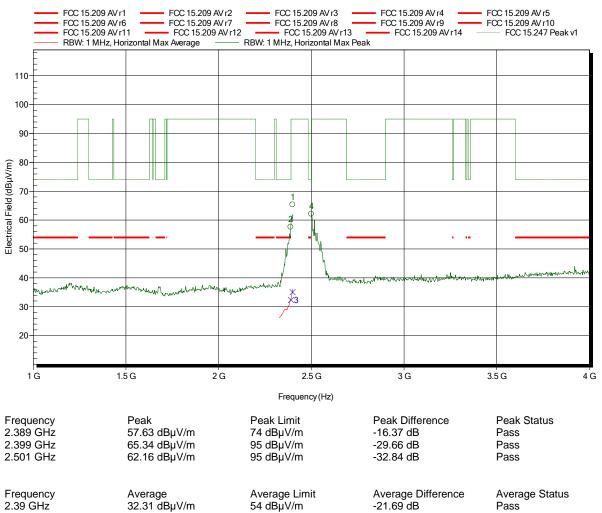
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; HT40; MCS0; 2452 MHz

Test Date: 2015-04-22

Note:





Project number: G0M-1503-4620

BARTEC PIXAVI AS Applicant:

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

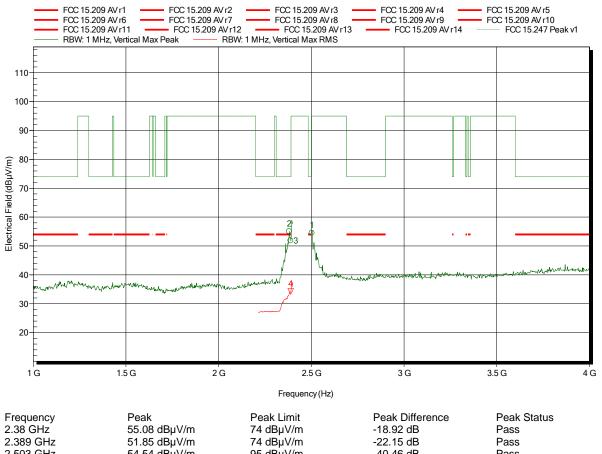
Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance:

TX; HT40; MCS0; 2452 MHz Mode:

2015-04-22 Test Date:

Note:



2.503 GHz 54.54 dBµV/m 95 dBµV/m -40.46 dB **Pass**



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

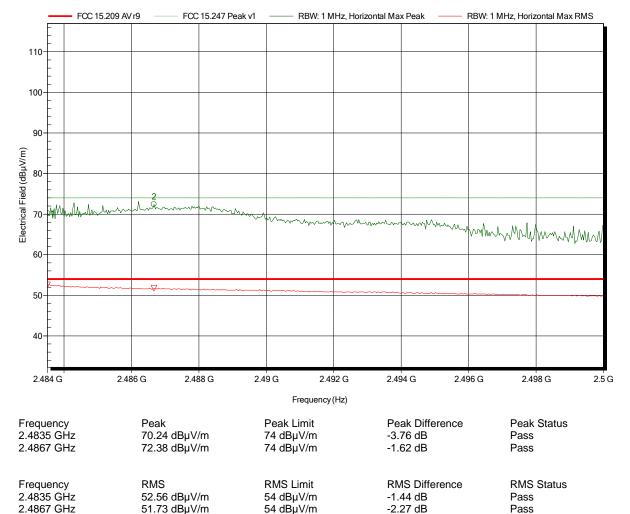
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2452 MHz

Test Date: 2015-04-22 Note: upper bandedge





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

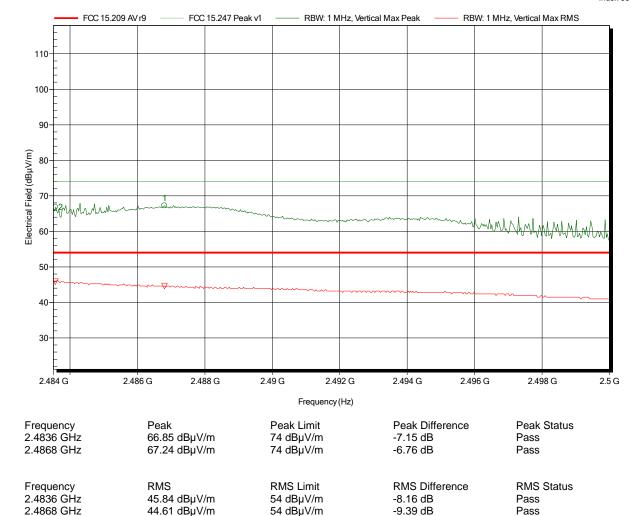
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2452 MHz

Test Date: 2015-04-22 Note: upper bandedge





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

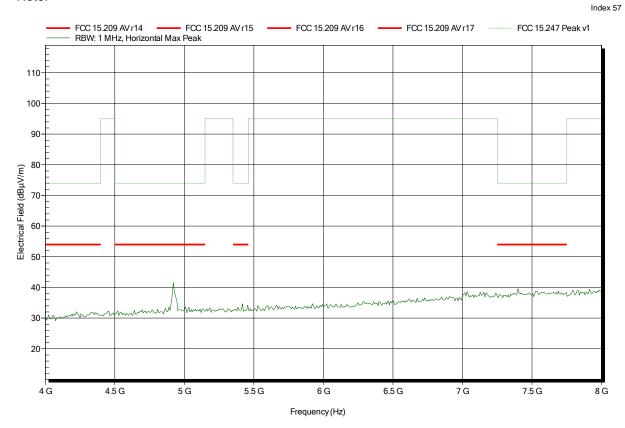
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2452 MHz

Test Date: 2015-04-22





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

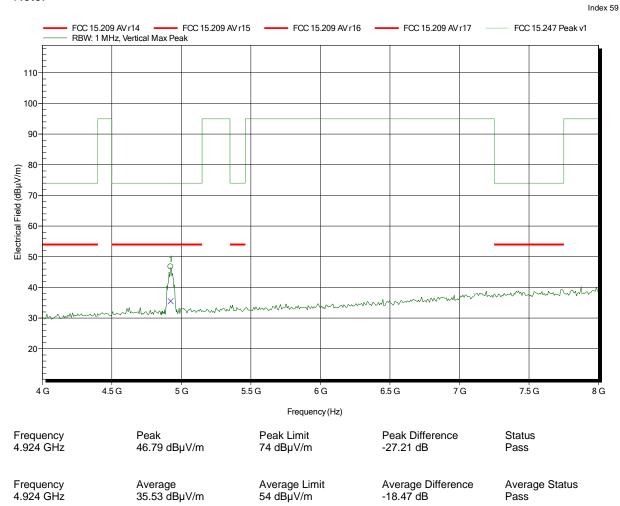
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; HT40; MCS0; 2452 MHz

Test Date: 2015-04-22





ANNEX B Receiver radiated spurious emissions

Spurious emissions according to RSS-GEN

Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

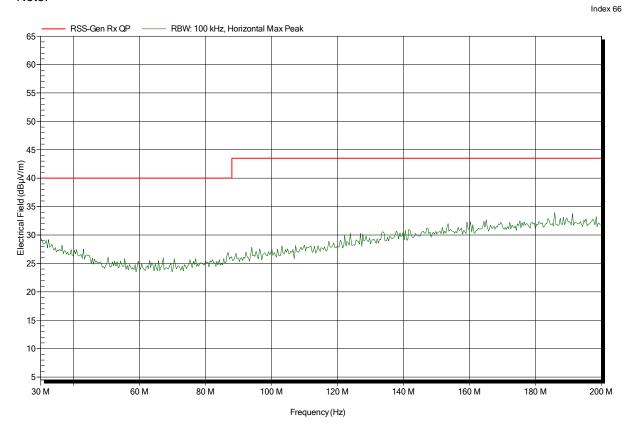
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

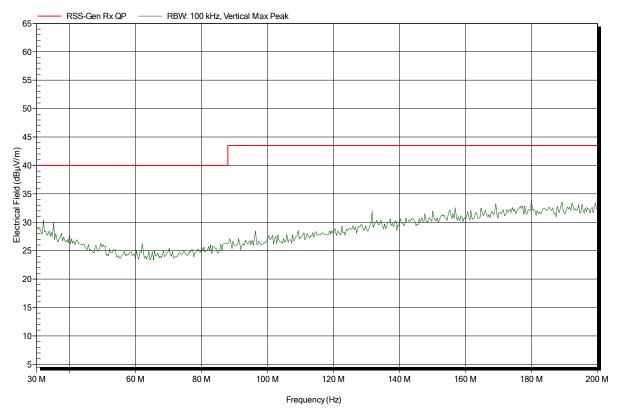
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22

Note:

Frequency Peak Peak Limit Peak Difference Status 681.6 MHz 23.5 dB μ V/m 46 dB μ V/m -22.5 dB Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22

Note:

Frequency Peak Peak Limit Peak Difference Status 904 MHz 24.22 dB μ V/m 46 dB μ V/m -21.78 dB Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

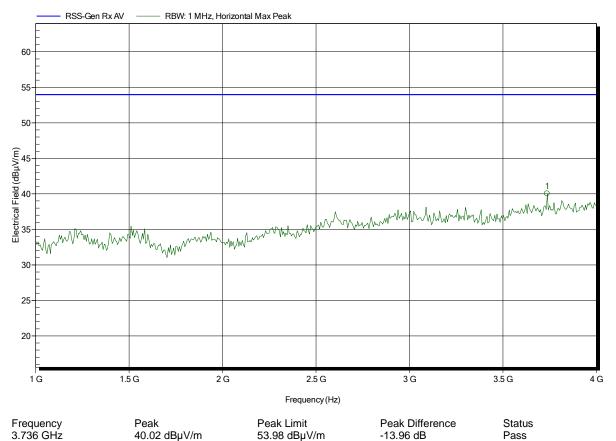
Operator: Mr. Treffke

Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

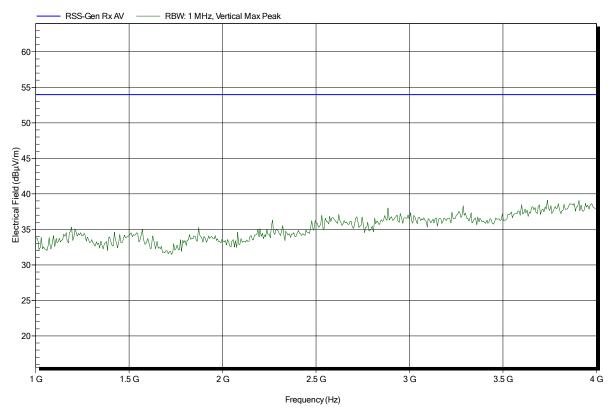
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22

Note:





Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

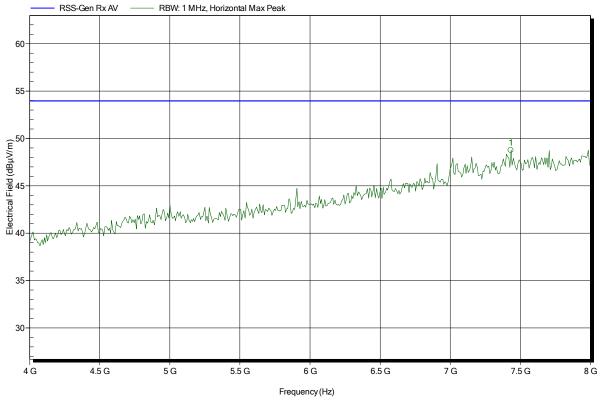
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22

Note:

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Frequency 7.432 GHz Peak 48.76 dBµV/m Peak Limit 53.98 dBµV/m Peak Difference -5.22 dB Status Pass



Project number: G0M-1503-4620

Applicant: BARTEC PIXAVI AS

EUT Name: Wireless camera (Standard version)

Model: OrbitX ST

Test Site: Eurofins Product Service GmbH

Operator: Mr. Treffke

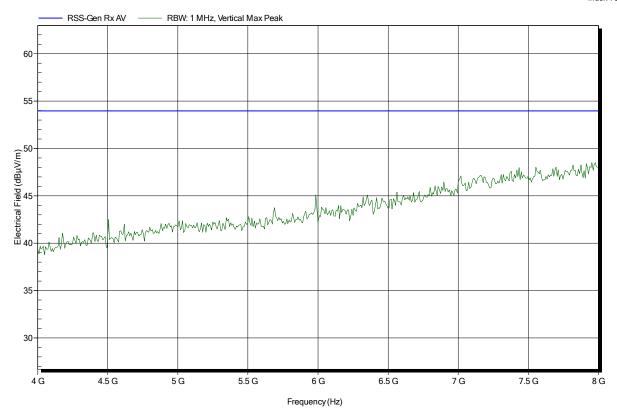
Test Conditions: Tnom: 25°C, Vnom: 3.7 V DC lithium battery

Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: RX; 2437 MHz Test Date: 2015-04-22

Note:





BARTEC PIXAVI

Title	BARTEC PIXAVI OrbitX Model Differences Declaration
Document ID	PX-ORBITX-Models-DoC
Revision	1
Project	OrbitX
Author	David Wightman
Created	23.04.2015
Last	23.04.2015
Nature of document	CONFIDENTIAL
Contents	Contents:
	Bartec Pixavi ORBITX RoHS Declaration of Conformity

Revision History

Revision	Date	Change	Revised by	
1	23.04.2015			



BARTEC PIXAVI

BARTEC PIXAVI OrbitX Model Differences Statement

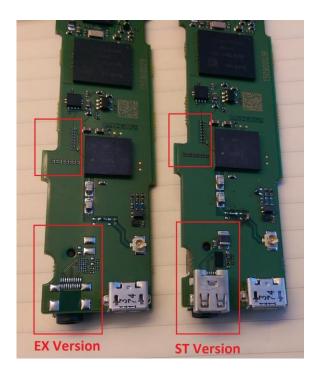
To whom it may concern,

The OrbitX comes in two models, an OrbitX-EX model and an OrbitX-ST model. Both models are identical except for the following differences highlighted below. There are no differences to the radio section between models.

HDMI

The **ST model** includes circuitry to support a Micro-HDMI connection and mechanics to give access to the HDMI port.

The **EX model** uses the same PCB, but does not have the HDMI components populated.







BARTEC PIXAVI

SILICON POTTING

The EX model is made for Hazardous areas and therefore is filled with a silicon potting in the following area. The antenna is not enclosed in Silicon.

The ST model is not filled with silicon potting.

