

Produkte
Products

Prüfbericht - Nr.: 14037985 001

Test Report No.:

Seite 1 von 20
Page 1 of 20

Auftraggeber: BluVision, Inc
Client: 3201 Griffin Rd Bld Suit 200 Fort Lauderdale
 Florida United States 33312

Gegenstand der Prüfung: BLE to WiFi Gateway
Test Item:

Bezeichnung: BluFi **Serien-Nr.:** **Engineering sample**
Identification: Serial No.:

Wareneingangs-Nr.: A000143026-009 **Eingangsdatum:** 02.03.2015
Receipt No.: Date of Receipt:

Prüfort: TÜV Rheinland Hong Kong Ltd.
Testing Location: 8/F, First Group Centre, 14 Wang Tai Road, Kowloon Bay, Kowloon, Hong Kong
Hong Kong Productivity Council
 HKPC Building, 78 Tat Chee Avenue, Kowloon, Hong Kong

Zustand des Prüfgegenstandes bei Anlieferung: Test samples are not damaged and suitable
Condition of test item at delivery: for testing.

Prüfgrundlage: FCC Part 15 Subpart C
Test Specification: ANSI C63.4-2003

Prüfergebnis: Das vorstehend beschriebene Gerät wurde geprüft und entspricht oben
Test Results: genannter Prüfgrundlage.
 The above mentioned product was tested and passed.

Prüflaboratorium: TÜV Rheinland Hong Kong Ltd.
Testing Laboratory: 8 - 10/F., Goldin Financial Global Square, 7 Wang Tai Road, Kowloon Bay,
 Kowloon, Hong Kong

geprüft/ tested by:

03.06.2016 Benny Lau
 Datum Name/Stellung
 Date Senior Project Manager


 Unterschrift
 Signature

03.06.2016 Sharon Li
 Datum Name/Stellung
 Date Department Manager


 Unterschrift
 Signature

Sonstiges:
 Other Aspects

FCC ID: SL6-BEEKSBLIFI

Abkürzungen: P(pass) = entspricht Prüfgrundlage
 F(fail) = entspricht nicht Prüfgrundlage
 N/A = nicht anwendbar
 N/T = nicht getestet

Abbreviations: P(pass) = passed
 F(fail) = failed
 N/A = not applicable
 N/T = not tested

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
 This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

Table of Content

	Page
Cover Page	1
Table of Content	2
Product information.....	4
Manufacturers declarations	4
Product function and intended use	4
Submitted documents.....	4
Independent Operation Modes	4
Related Submittal(s) Grants	5
Remark	5
Test Set-up and Operation Mode.....	6
Principle of Configuration Selection	6
Test Operation and Test Software.....	6
Special Accessories and Auxiliary Equipment.....	6
Countermeasures to achieve EMC Compliance.....	6
Test Methodology	7
Radiated Emission	7
Field Strength Calculation.....	7
Test Setup Diagram	8
List of Test and Measurement Instruments.....	10
Measurement Uncertainty	11
Results FCC Part 15 – Subpart C	12
FCC 15.203 – Antenna Requirement 1.....	Pass..... 12
FCC 15.204 – Antenna Requirement 2.....	N/A..... 12
FCC 15.207 – Conducted Emission on AC Mains	Pass..... 12
FCC 15.247 (a)(2) – 6dB Bandwidth Measurement	Pass..... 14
FCC 15.247(b)(3) – Maximum Peak Couducted Output Power	Pass..... 15
FCC 15.247(e) – Power Spectral Density.....	Pass..... 16
FCC 15.247(d) – Spurious Conducted Emissions	Pass..... 17
FCC 15.205 – Radiated Emissions in Restricted Frequency Bands.....	Pass..... 18
Appendix 1 – Test protocols	34 pages

Appendix 2 – Test setup	2 pages
Appendix 3 – EUT External Photos	3 pages
Appendix 4 – EUT Internal Photos	4 pages
Appendix 5 – RF exposure information.....	2 pages

Product information

Manufacturers declarations

	WIFI Transceiver
Operating frequency range	2412 - 2462 MHz
Type of modulation	DSSS, OFDM, MCS0-7
Number of channels	11
Channel separation	5 MHz
Type of antenna	Integral PCB Antenna
Antenna gain (dBi)	0 dBi
Power level	fix
Type of equipment	stand alone radio device
Connection to public utility power line	Yes
Nominal voltage	V _{nor} : 100 to 240 VAC
Independent Operation Modes	Transmitting mode

	Bluetooth Low Energy Transceiver
Operating frequency range	2402 - 2480 MHz
Type of modulation	GFSK
Number of channels	40
Channel separation	2 MHz
Type of antenna	Integral PCB Antenna
Antenna gain (dBi)	0 dBi
Power level	fix
Type of equipment	stand alone radio device
Connection to public utility power line	Yes
Nominal voltage	V _{nor} : 100 to 240 VAC
Independent Operation Modes	Transmitting mode

Product function and intended use

The equipment under test (EUT) is a BLE to WIFI Gateway operating at 2.4GHz. It is powered by 100–240VAC

FCC ID: SL6-BEEKSBLUFI

Models	Product description
BluFi	BLE to WiFi Gateway

Submitted documents

Circuit Diagram
 Block Diagram
 Bill of material
 User manual
 Label

Independent Operation Modes

The basic operation modes are:

- Transmitting mode.

For further information refer to User Manual

Related Submittal(s) Grants

This is a single application for certification of the WIFI transmitter.

The BLE portion is authorized under the certification procedure (refer to test report 14037984 001)

Remark

The test results in this test report are only relevant to the tested sample and does not involve any assessment in the production.

Test Set-up and Operation Mode

Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Test Operation and Test Software

Test operation should refer to test methodology.

- Special software is provided by the grantee to set the device to operate in a fixed frequency channel and maximum RF output power level. The RF output power was selected according to the instruction given by the manufacturer. The setting of the RF output power expected by the customer shall be fixed on the firmware of the final end product.
- Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate. Simultaneous transmission was investigated, no additional spurious emission was found from 9kHz to 25GHz.

Special Accessories and Auxiliary Equipment

- none

Countermeasures to achieve EMC Compliance

- none

Test Methodology

Radiated Emission

The radiated emission measurements of the transmitter part were performed according to the procedures in ANSI C63.4-2003.

For measurement below 1GHz - the equipment under test (EUT) was placed at the middle of the 80 cm height turntable. For measurement above 1GHz - the EUT was placed at the middle of the 1.5 m height turntable and RF absorbing material was placed on ground plane between turntable and measuring antenna. During the testing, the EUT was operated standalone and arranged for maximum emissions. The EUT was tested in three orthogonal planes.

The investigation is performed with the EUT rotated 360 °, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained.

All radiated tests were performed at an antenna to EUT with 3 meters distance, unless stated otherwise in particular parts of this test report.

Field Strength Calculation

The field strength at 3 m was established by adding the meter reading of the spectrum analyzer to the factors associated with antenna correction factor, cable loss, preamplifiers and filter attenuation.

The equation is expressed as follow:

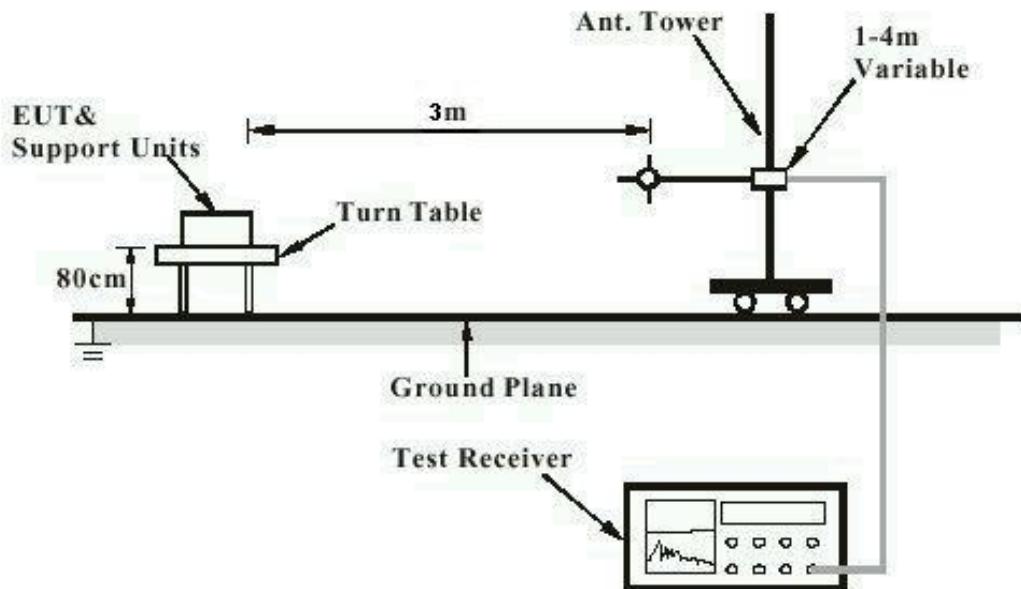
$$FS = R + AF + CF + FA - PA$$

Where FS = Field Strength in dB_{uV/m} at 3 meters.
R = Reading of Spectrum Analyzer in dB_{uV}.
AF = Antenna Factor in dB.
CF = Cable Attenuation Factor in dB.
FA = Filter Attenuation Factor in dB.
PA = Preamplifier Factor in dB.

FA and PA are only be used for the measuring frequency above 1 GHz.

Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test



Note: Measurements above 1 GHz are done with a table height of 1.5m. In addition, there is RF absorbing material on the floor of the test site for above 1GHz measurement.

Diagram of Measurement Equipment Configuration for Mains Conduction Measurement (if applicable)

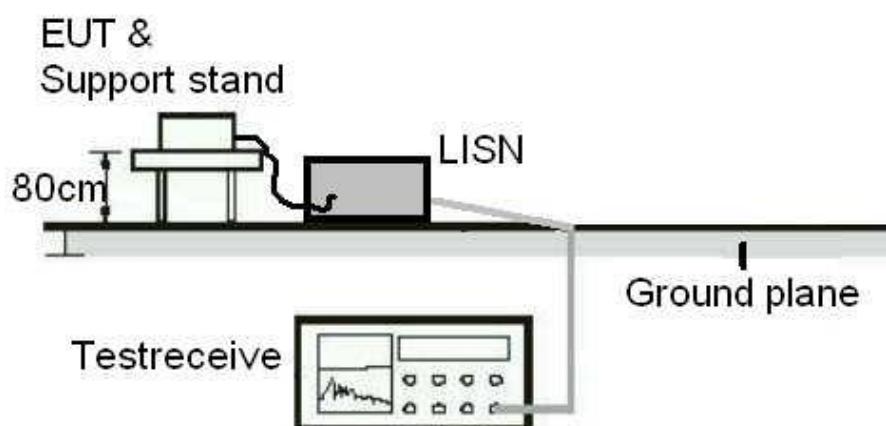
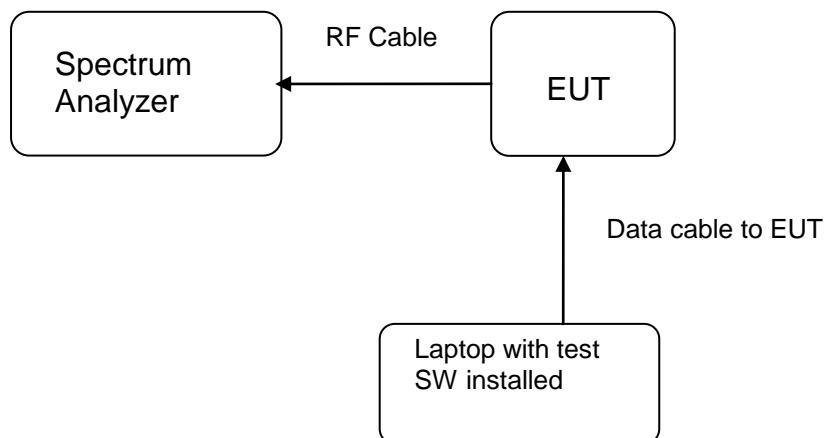


Diagram of Equipment Configuration for Antenna-port Conducted Measurement (if applicable)



List of Test and Measurement Instruments

Hong Kong Productivity Council (FCC Registration number: 90656)

Radiated Emission

Equipment	Manufacturer	Type	Cal. Date	Due Date
Semi-anechoic Chamber	Frankonia	Nil	25-Apr-16	25-Apr-17
New Fully Anechoic Chamber	TDK	N/A	19-Apr-16	19-Apr-17
Cable	Hubersuhner	SUCOFLEX 104	31-Mar-16	31-Mar-18
Test Receiver	R & S	ESU26	7-Dec-15	7-Dec-16
Bi-conical Antenna	R & S	HK116	1-Sep-15	1-Sep-17
Log Periodic Antenna	R & S	HL223	1-Sep-15	1-Sep-17
Coaxial cable	Harbour	LL335	10-Jun-14	10-Jun-16
Microwave amplifier 0.5-26.5GHz, 25dB gain	HP	83017A	17-Jul-14	17-Jul-16
High Pass Filter (cutoff freq. =1000MHz)	Trilithic	23042	28-Oct-15	28-Oct-17
Horn Antenna	EMCO	3115	26-Aug-15	26-Aug-17
Active Loop Antenna	EMCO	6502	15-Aug-15	15-Aug-16

TÜV Rheinland Hong Kong Ltd

Radio Test

Equipment	Manufacturer	Type	Cal. Date	Due Date
Spectrum Analyzer	R & S	FSP30	12-Jan-15	12-Jan-17
Power meter	Dijkstra Advice, Research & EMC Instruments B.V.	RPR3006W	08-Jul-15	08-Jul-16

AC Mains Conducted Emission

Equipment	Manufacturer	Type	Cal. Date	Due Date
Test Receiver	R & S	ESR3	22-Oct-15	22-Oct-16
LISN	R & S	ENV216	05 Feb 15	19-Jan-17
EMC32	R & S	v9.12	N/A	N/A

Measurement Uncertainty

The estimated combined standard uncertainty for power-line conducted emissions measurements is ±3.43dB.

The estimated combined standard uncertainty for radiated emissions measurements is ±5.10dB (30MHz to 200MHz) and ±5.08dB (200MHz to 1000MHz) and is ±5.10dB (30MHz to 200MHz) and ±5.08dB (above 1GHz).

The estimated combined standard uncertainty for antenna conducted emission is ±1.56dB

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of k=2, which for the level of confidence is approximately 95%.

Results FCC Part 15 – Subpart C

FCC 15.203 – Antenna Requirement 1		Pass
FCC Requirement: No antenna other than that furnished by the responsible party shall be used with the device		
Results:	a) Antenna type: b) Manufacturer and model no: c) Peak Gain:	Integral PCB antenna N/A -3 dBi
Verdict:	Pass	

FCC 15.204 – Antenna Requirement 2		N/A
FCC Requirement: An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator, it shall be of a type which is authorized with the intentional radiator.		
Results:	Only one integral antenna can be used.	
Verdict:	N/A	

FCC 15.207 – Conducted Emission on AC Mains		Pass
Test Specification : ANSI C63.4 – 2003		
Mode of operation : TX mode		
Port of testing : AC Mains input port of power supply		
Detector : Quasi-peak and Average		
RBW : 9 kHz		
Supply voltage : 120Vac 60Hz		
Temperature : 23°C		
Humidity : 50%		
Requirement: 15.207(a)		

Results: Pass

802.11b - Live measurement

Frequency range (MHz)	Frequency (MHz)	Quasi-peak dB μ V	Average dB μ V	Limit QP (dB μ V)	Limit AV (dB μ V)	Verdict
0,15 – 0,5	No peak found	---	---	66 - 56	56 - 46	Pass
> 0,5 – 5	0.5325	49.5	42.6	56	46	Pass
> 5 – 30	5.388	50.9	41.1	60	50	Pass

802.11b - Neutral measurement

Frequency range (MHz)	Frequency (MHz)	Quasi-peak dB μ V	Average dB μ V	Limit QP (dB μ V)	Limit AV (dB μ V)	Verdict
0,15 – 0,5	No peak found	---	---	66 - 56	56 - 46	Pass
> 0,5 - 5	0.530250	49.5	42.7	56	46	Pass
> 5 - 30	5.313750	50.9	40.8	60	50	Pass

802.11g - Live measurement						
Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBμV	Average dBμV	Limit QP (dBμV)	Limit AV (dBμV)	Verdict
0,15 – 0,5	No peak found	---	---	66 - 56	56 - 46	Pass
> 0,5 - 5	0.541500	51.3	44.4	56	46	Pass
> 5 - 30	5.428500	51.4	41.5	60	50	Pass
802.11g - Neutral measurement						
Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBμV	Average dBμV	Limit QP (dBμV)	Limit AV (dBμV)	Verdict
0,15 – 0,5	No peak found	---	---	66 - 56	56 - 46	Pass
> 0,5 - 5	0.537000	51.0	44.2	56	46	Pass
> 5 - 30	5.367750	51.1	41.0	60	50	Pass
802.11n - Live measurement						
Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBμV	Average dBμV	Limit QP (dBμV)	Limit AV (dBμV)	Verdict
0,15 – 0,5	No peak found	---	---	66 - 56	56 - 46	Pass
> 0,5 - 5	0.541500	51.2	44.5	56	46	Pass
> 5 - 30	5.392500	51.1	41.3	60	50	Pass
802.11n - Neutral measurement						
Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBμV	Average dBμV	Limit QP (dBμV)	Limit AV (dBμV)	Verdict
0,15 – 0,5	No peak found	---	---	66 - 56	56 - 46	Pass
> 0,5 - 5	0.539250	51.3	44.4	56	46	Pass
> 5 - 30	5.392500	51.1	40.9	60	50	Pass

Results: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate.

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150kHz to 30MHz does not exceed the limits. For test Results plots refer to Appendix 1.

FCC 15.247 (a)(2) – 6dB Bandwidth Measurement			Pass
FCC Requirement: Systems using digital modulation techniques may operate in the 902 – 928 MHz, 2400 – 2483.5 MHz, and 5725 – 5850 MHz bands. The minimum 6dB bandwidth shall be at least 500kHz.			
Test Specification : KDB 558074 section 8.1 Mode of operation : TX mode Port of testing : Temporary antenna port Detector : Peak RBW/VBW : 100KHz/ 300KHz Supply voltage : 3.7 Vdc Temperature : 23°C Humidity : 50%			
Results: For test protocols please refer to Appendix 1			
802.11b			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2412	2407.480	2416.50	9020
2437	2432.460	2441.54	9080
2462	2457.020	2466.52	9500
802.11g			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2412	2404.460	2419.54	15080
2437	2429.440	2444.48	15040
2462	2454.460	2469.54	15080
802.11n			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2412	2404.460	2419.54	15080
2437	2429.460	2444.54	15080
2462	2454.440	2469.54	15100

FCC 15.247(b)(3) – Maximum Peak Coudacted Output Power		Pass	
FCC Requirement: For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850MHz bands: 1 Watt (30dBm)			
Test Specification : KDB 558074 section 9.1.2 Mode of operation : TX mode Port of testing : Temporary antenna port Detector : Peak Supply voltage : 3.7 Vdc Temperature : 23°C Humidity : 50%			
802.11b			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	12.2	1 / 30.0	Pass
2437	13.8	1 / 30.0	Pass
2462	13.1	1 / 30.0	Pass
802.11g			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	14.8	1 / 30.0	Pass
2437	16.3	1 / 30.0	Pass
2462	14.8	1 / 30.0	Pass
802.11n			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	14.1	1 / 30.0	Pass
2437	15.5	1 / 30.0	Pass
2462	14.4	1 / 30.0	Pass

FCC 15.247(e) – Power Spectral Density		Pass	
FCC Requirement: For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.			
Test Specification : KDB 558074 section 10.2 Mode of operation : TX mode Port of testing : Temporary antenna port Detector : Peak RBW/VBW span : $\geq 100 \text{ KHz} / \geq 3 \times \text{RBW}$ Supply voltage : 3.7 Vdc Temperature : 23°C Humidity : 50%			
Results: For test protocols please refer to Appendix 1.			
802.11b			
Operating frequency (MHz)	Power density (dBm)	Limit (dBm)	Verdict
2412	1.95	8.0	Pass
2437	3.19	8.0	Pass
2462	2.35	8.0	Pass
802.11g			
Operating frequency (MHz)	Power density (dBm)	Limit (dBm)	Verdict
2412	-2.78	8.0	Pass
2437	1.31	8.0	Pass
2462	-2.67	8.0	Pass
802.11n			
Operating frequency (MHz)	Power density (dBm)	Limit (dBm)	Verdict
2412	-3.57	8.0	Pass
2437	-0.60	8.0	Pass
2462	-3.22	8.0	Pass

FCC 15.247(d) – Spurious Conducted Emissions						Pass
Test Specification : KDB 558074 section 11.2						
Mode of operation : TX mode						
Port of testing : Temporary antenna port						
Detector : Peak						
RBW/VBW : 100 kHz / 300 kHz						
Supply voltage : 3.7 Vdc						
Temperature : 23 °C						
Humidity : 50 %						
FCC Requirement: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.						
Results: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate. Only the worst cases is shown below. For test protocols refer to Appendix 1						
802.11b						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	2397.000	-38.87	1.95	-40.82	Pass	
2437	4048.000	-40.85	3.19	-44.04	Pass	
2462	4096.000	-42.66	2.35	-45.01	Pass	
802.11g						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	2399.800	-27.86	-2.78	-25.08	Pass	
2437	3232.000	-41.96	1.31	-43.27	Pass	
2462	3280.000	-44.79	-2.67	-42.12	Pass	
802.11n						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	2400.200	-27.77	-3.57	-24.20	Pass	
2437	3232.000	-44.67	-0.60	-44.07	Pass	
2462	2483.900	-44.40	-3.22	-41.18	Pass	

FCC 15.205 – Radiated Emissions in Restricted Frequency Bands		Pass
Test Specification :	ANSI C63.4 – 2003	
Mode of operation :	TX mode	
Port of testing :	Enclosure	
Detector :	Peak	
RBW/VBW :	100 kHz / 300 kHz for f < 1 GHz 1 MHz / 3 MHz for f > 1 GHz	
Supply voltage :	3.7 Vdc	
Temperature :	23°C	
Humidity :	50%	
FCC Requirement: In any 100kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, 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 15.205(c).		
Results:	<p>Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate.</p> <p>All three transmit frequency modes comply with the field strength within the restricted bands. There is no spurious found below 30MHz.</p>	
Mode: 802.11b 2412MHz TX	Vertical Polarization	
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2390.000	48.45	74.0 / PK
2390.000	35.68	54.0 / AV
4020.032	54.76	74.0 / PK
4020.032	46.19	54.0 / AV
6432.228	56.37	74.0 / PK
6432.228	42.19	54.0 / AV
Mode: 802.11b 2412MHz TX	Horizontal Polarization	
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2390.000	53.39	74.0 / PK
2390.000	41.59	54.0 / AV
4020.032	58.63	74.0 / PK
4020.032	51.94	54.0 / AV
Mode: 802.11b 2437 MHz TX	Vertical Polarization	
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4202.448	58.42	74.0 / PK
4202.448	52.13	54.0 / AV
Mode: 802.11b 2437 MHz TX	Horizontal Polarization	
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4021.330	57.59	74.0 / PK
4021.330	49.52	54.0 / AV

Mode: 802.11b 2462 MHz TX		
Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2483.500	50.47	74.0 / PK
2483.500	38.27	54.0 / AV
4102.634	56.74	74.0 / PK
4102.634	49.33	54.0 / AV
Mode: 802.11b 2462 MHz TX		
Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2483.500	56.39	74.0 / PK
2483.500	44.14	54.0 / AV
4102.553	57.07	74.0 / PK
4102.553	49.81	54.0 / AV
Mode: 802.11g 2412MHz TX		
Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2390.000	55.35	74.0 / PK
2390.000	37.49	54.0 / AV
4018.685	57.68	74.0 / PK
4018.685	45.71	54.0 / AV
Mode: 802.11g 2412MHz TX		
Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2390.000	65.18	74.0 / PK
2390.000	44.88	54.0 / AV
4020.288	56.86	74.0 / PK
4020.288	44.67	54.0 / AV
Mode: 802.11b 2437 MHz TX		
Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4062.276	56.77	74.0 / PK
4062.276	45.08	54.0 / AV
Mode: 802.11g 2437 MHz TX		
Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4060.513	57.98	74.0 / PK
4060.513	45.98	54.0 / AV
Mode: 802.11g 2462 MHz TX		
Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2483.500	59.09	74.0 / PK
2483.500	39.92	54.0 / AV
4103.330	56.11	74.0 / PK
4103.330	44.16	54.0 / AV
Mode: 802.11g 2462 MHz TX		
Horizontal Polarization		
Freq	Level	Limit/ Detector

MHz	dBuV/m	dBuV/m
2483.500	68.16	74.0 / PK
2483.500	48.13	54.0 / AV
4104.939	57.18	74.0 / PK
4101.939	45.08	54.0 / AV
Mode: 802.11n 2412MHz TX		Vertical Polarization
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2390.000	56.19	74.0 / PK
2390.000	38.73	54.0 / AV
4019.888	57.01	74.0 / PK
4019.888	45.11	54.0 / AV
Mode: 802.11n 2412MHz TX		Horizontal Polarization
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2390.000	65.31	74.0 / PK
2390.000	44.96	54.0 / AV
4021.330	55.91	74.0 / PK
4021.330	43.34	54.0 / AV
Mode: 802.11n 2437 MHz TX		Vertical Polarization
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4059.792	56.23	74.0 / PK
4059.791	44.41	54.0 / AV
Mode: 802.11n 2437 MHz TX		Horizontal Polarization
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4063.558	57.36	74.0 / PK
4063.558	45.39	54.0 / AV
Mode: 802.11n 2462 MHz TX		Vertical Polarization
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2483.500	61.89	74.0 / PK
2483.500	41.36	54.0 / AV
4103.221	55.93	74.0 / PK
4103.221	44.00	54.0 / AV
Mode: 802.11n 2462 MHz TX		Horizontal Polarization
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
2483.500	68.26	74.0 / PK
2483.500	46.95	54.0 / AV
4102.660	56.75	74.0 / PK
4102.660	45.02	54.0 / AV