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# **Test Report**

Applicant	Best Link (USA) Corp. Ltd.	
Address	Room 1206, 12/F., Global Trade Center, 15 Wing Kin Road, Kwai Chung, N.T., Hong Kong	
FCC ID Number	FCC ID: 2AI8LUBW50WD2009360	
Brand Name(s)	None	
Model Number(s)/ Item Number(s)	UBW50WD2009360	
<b>Product Description</b>	Bluetooth Device	
Operating Frequency	2.402-2.480 GHz	
Rules/Standards	Part 15.247 of the FCC Rules	
Received Date	29th July, 2016	
Tested Date	29th July, 2016	
Approved by	Dick Chan (Director of Gakkiku)	
Tested by	Tsn 2 2007 Tink Zeng (Engineer of Shenzhen SEM.Test)	
Reviewed by	Silin Chen (EMC Manager of Shenzhen SEM.Test)	
Signed by	Jandy So (Manager of Shenzhen SEM.Test)	
Report Number	GKK201607290A	
Test Results	⊠ PASSED ☐ FAILED	

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#### 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment Under Test (EUT)

**Client Information** 

Applicant: Best Link (USA) Corp. Ltd.

Address of applicant: Room 1206, 12/F., Global Trade Center, 15 Wing Kin Road,

Kwai Chung, N.T., Hong Kong

Manufacturer: Best Link (USA) Corp. Ltd.

Address of manufacturer: Room 1206, 12/F., Global Trade Center, 15 Wing Kin Road,

Kwai Chung, N.T., Hong Kong

General Description of EUT			
Product Description:	Bluetooth Device		
Product Name:	Watch Dogs 2 Wrench Jr. Robot		
Brand Name:	None		
Model Number(s)/ Item Number(s):	UBW50WD2009360 [All Brand Name(s) and Model Number(s)/Item Number(s) are electrically identical]		
Power Source:	DC 9V (6 units of DC 1.5V AA-Size Battery)		
Rated Current:	/		
Note: The test data is gathered from a production sample provided by the manufacturer.			

Technical Characteristics of EUT		
Bluetooth Version:	V4.0 (BLE)	
Frequency Range:	2402-2480 MHz	
RF Output Power:	-1.935 dBm (Conducted)	
Data Rate:	1 Mbps	
Modulation:	GFSK (BLE)	
Number of Channels:	40	
Channel Separation:	2 MHz	
Type of Antenna:	PCB Integral	
Antenna Gain:	o dBi	

#### 1.2 Test Standards

The following report is prepared on behalf of the Best Link (USA) Corp. Ltd. in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the FCC Rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the FCC Rules.

**Maintenance of compliance** is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

#### 1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices, and ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz. The measurement guide KDB 558074 Do1 v03r05 for digital transmission systems shall be performed also.

#### 1.4 Test Facility

#### Federal Communications Commission (FCC) Registration No.: 934118

The EMC Laboratory of Shenzhen SEM.Test Technology Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files and the Registration No.: 934118.

#### Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

# China National Accreditation Service for Conformity Assessment (CNAS) Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, 518101, Guangdong, China.

### 1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List				
Test Mode	Test Mode Description Frequencies			
TM1	BLE	2402/2440/2480MHz		

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/ Unshielded	With/ Without Ferrite
/	/	/	/

Special Cable List and Details			
Cable Description Length (m)		Shielded/	With/
		Unshielded	Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

### 1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Condition	Uncertainty
RF Output Power	Conducted	±0.42dB
Occupied Bandwidth	Conducted	±1.5%
Power Spectral Density	Conducted	±1.8dB
Conducted Spurious Emission	Conducted	±2.17dB
Conducted Emissions	Conducted	±2.88dB
Transmitter Spurious Emissions	Radiated	±5.1dB

## 1.7 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	<b>Due Date</b>	
SEMT-1072	Spectrum	Agilent	E4407B	MY41440400	2016-06-04	2017-06-03	
SEM1-10/2	Analyzer	Agnent	Е440/Б	W141440400	2010-00-04	201/-00-03	
SEMT-1031	Spectrum	Rohde & Schwarz	FSP30	906070/007	2016-06-04	2017-06-03	
SEW1-1031	Analyzer	Rollde & Schwarz	13130	836079/035	2010-00-04	201/-00-03	
SEMT 1007	EMI Test	Rohde & Schwarz	ESVB	905451/005	0016 06 04	2017 06 00	
SEMT-1007	Receiver	Ronde & Schwarz	ESVD	825471/005	2016-06-04	2017-06-03	
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2016-06-04	2017-06-03	
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2016-06-04	2017-06-03	
SEMT-1011	Broadband	C.L L.J.	WIII Double	0160 000	2016-06-04	2017-06-03	
SEM1-1011	Antenna	Schwarz beck	VULB9163	9163-333			
SEMT 1040	Horn	ETS	0115	00096107	0016 06 04	2015 06 00	
SEMT-1042	Antenna	E13	3117	00086197	2016-06-04	2017-06-03	
SEMT-1121	Horn	ETS	3116B	00088203	2016 06 04	2017 06 00	
SEW11-1121	Antenna	E15	31100	00088203	2016-06-04	2017-06-03	
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2016-06-04	2017-06-03	
CEMT 1001	EMI Test	D. l. l. 0 C.l.	EMI Test	EGDI			
SEMT-1001	Receiver	Rohde & Schwarz	ESPI	101611	2016-06-04	2017-06-03	
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2016-06-04	2017-06-03	
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2016-06-04	2017-06-03	

### 2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
Part 2.1093	RF Exposure	Compliant
Part 15.203; Part 15.247(b)(4)(i)	Antenna Requirement	Compliant
Part 15.205	Restricted Band of Operation	Compliant
Part 15.207(a)	Conducted Emission	N/A
Part 15.247(e)	Power Spectral Density	Compliant
Part 15.247(a)(2)	6 dB Bandwidth	Compliant
Part 15.247(b)(3)	RF Output Power	Compliant
Part 15.209(a)	Radiated Emission	Compliant
Part 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: Not Applicable

### 3. RF Exposure

### 3.1 Standard Applicable

According to Part 1.1307 and 2.1093 of the FCC Rules, the portable transmitter must comply the RF exposure requirements.

#### 3.2 Test Result

This product complied with the requirement of the RF exposure. Please see the RF Exposure Report.

### 4. Antenna Requirement

#### 4.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

#### 4.2 Evaluation Information

This product has a Integral PCB antenna, fulfill the requirement of this section.

# 5. Power Spectral Density

#### 5.1 Standard Applicable

According to FCC Part 15.247(a)(1)(iii), 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.

#### **5.2 Test Procedure**

According to the KDB 558074 Do1 vo3ro5, the test method of power spectral density as below:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- d) Set the VBW  $\geq 3 \times RBW$ .
- e) Detector = Peak.
- f) Sweep time = Auto couple.
- g) Trace mode = Max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

#### 5.3 Environmental Conditions

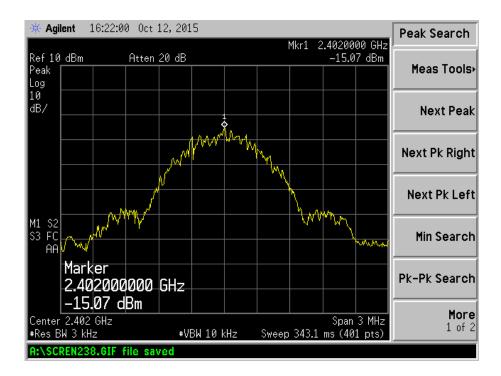
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

### **5.4 Summary of Test Results/Plots**

Test Mode	Test Channel (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
GFSK (BLE)	2402	-15.07	8
	2440	-17.38	8
	2480	-19.05	8

Please refer to the following test plots:

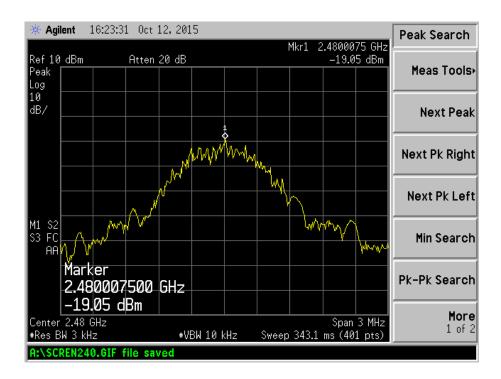
#### Lowest Channel:



#### Near Middle Channel:



#### **Highest Channel:**



#### 6. 6dB Bandwidth

#### **6.1 Standard Applicable**

According to FCC Part 15.247(a)(2), Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **6.2** Test Procedure

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 \times RBW$ .
- c) Detector = Peak.
- d) Trace mode = Max hold.
- e) Sweep = Auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### **6.3 Environmental Conditions**

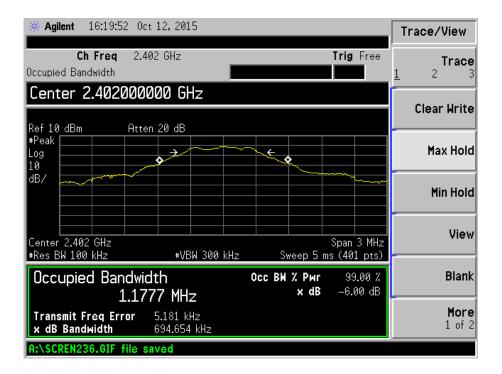
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

#### **6.4 Summary of Test Results/Plots**

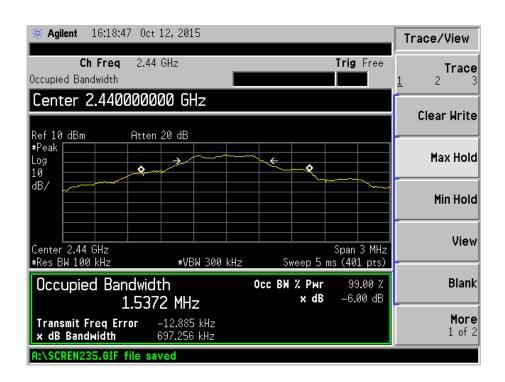
Test Mode	Test Channel (MHz)	6 dB Bandwidth (kHz)	99% Bandwidth (kHz)	Limit (kHz)
	2402	694.654	1177.7	≥500
GFSK (BLE)	2440	697.256	1537.2	≥500
	2480	698.370	1549.7	≥500

Please refer to the following test plots:

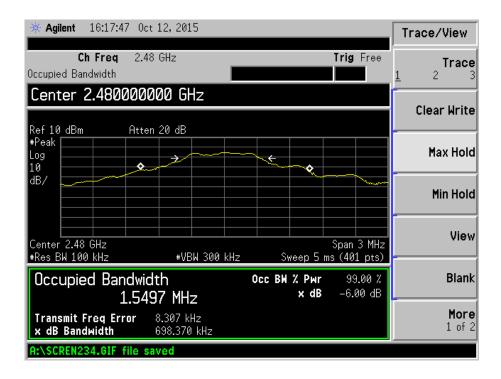
For BLE Lowest Channel:



#### Near Middle Channel:



#### **Highest Channel:**



### 7. RF Output Power

### 7.1 Standard Applicable

According to FCC Part 15.247(b)(3), For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

#### 7.2 Test Procedure

According to section KDB-558074 Do1 vo3ro5 section 9.1.1, this procedure shall be used when the measurement instrument has available a resolution bandwidth that is greater than the DTS bandwidth.

- a) Set the RBW ≥ DTS bandwidth.
- b) Set VBW  $\geq 3 \times RBW$ .
- c) Set span  $\geq 3 \times RBW$
- d) Sweep time = Auto couple.
- e) Detector = Peak.
- f) Trace mode = Max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

#### 7.3 Environmental Conditions

Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

#### 7.4 Summary of Test Results/Plots

Test Mode	Frequency (MHz)	Reading (dBm)	Output Power (mW)	Limit (mW)
	2402	-1.935	0.640	1000
GFSK (BLE)	2440	-2.739	0.532	1000
	2480	-3.947	0.403	1000

Note: the antenna gain of odBi less than 6dBi maximum permission antenna gain value based on 1 watt peak output power limit.

### 8. Field Strength of Spurious Emissions

#### 8.1 Standard Applicable

According to FCC Part 15.247(d), 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

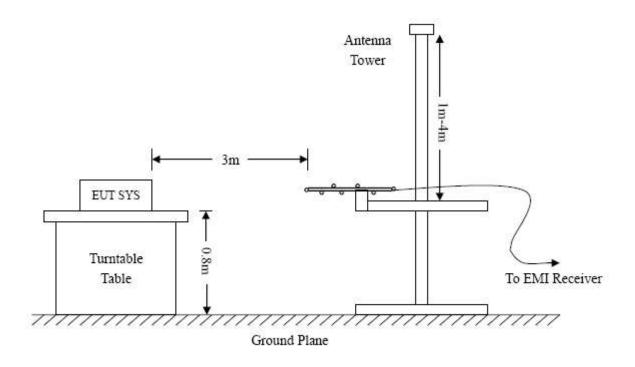
The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

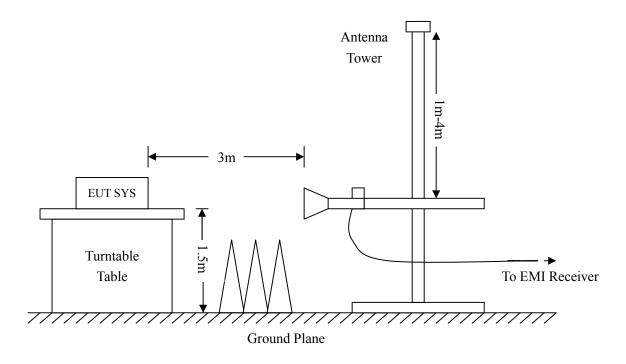
#### 8.2 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.





Frequency: 9kHz-30MHz Frequency: 30MHz-1GHz Frequency: Above 1GHz

RBW=10kHz RBW=120kHz RBW=1MHz

VBW = 30kHz VBW=300kHz VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto Sweep time= Auto Sweep time= Auto
Trace = Max hold Trace = Max hold Trace = Max hold

Detector function = Peak, QP Detector function = Peak, AV

#### 8.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of  $-6dB_{\mu}V$  means the emission is  $6dB_{\mu}V$  below the maximum limit. The equation for margin calculation is as follows:

#### 8.4 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

#### 8.5 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst cases:

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

#### **Plot of Radiated Emissions Test Data**

Product Description: Bluetooth Device

*Tested Model Number(s)/* 

UBW50WD2009360

Item Number(s):

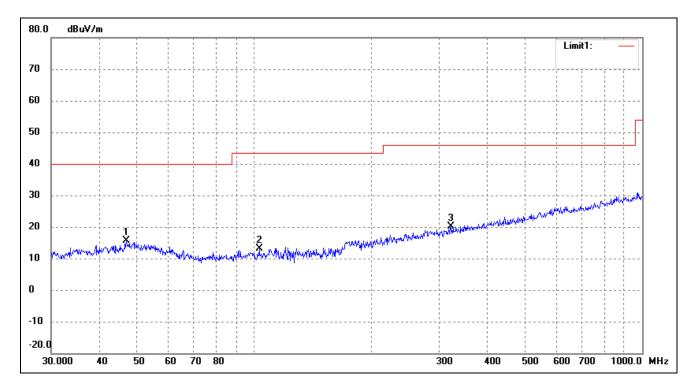
*Operating Condition:* 

Transmitting (Lowest Channel: 2402 MHz)

Power Source:

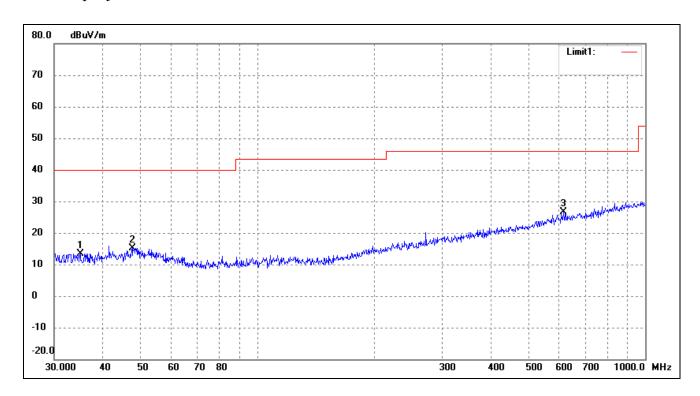
DC 9V (6 units of DC 1.5V AA-Size Battery)

Test Specification: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	46.8303	24.95	-9.43	15.52	40.00	-24.48	126	100	Peak
2	103.0800	24.85	-11.65	13.20	43.50	-30.30	24	100	Peak
3	321.0608	24.87	-4.79	20.08	46.00	-25.92	166	100	Peak

Test Specification: Vertical



No	0.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
		(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1		35.0048	24.62	-11.12	13.50	40.00	-26.50	136	100	Peak
2	2	47.8260	24.45	-9.29	15.16	40.00	-24.84	44	100	Peak
3	3	616.3718	25.31	1.30	26.61	46.00	-19.39	16	100	Peak

#### **Plot of Radiated Emissions Test Data**

Product Description: Bluetooth Device

Tested Model Number(s)/

UBW50WD2009360

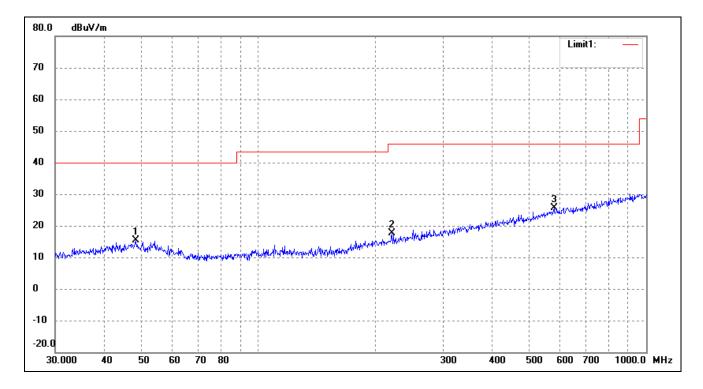
Item Number(s):
Operating Condition:

Transmitting (Near Middle Channel: 2440 MHz)

Power Source:

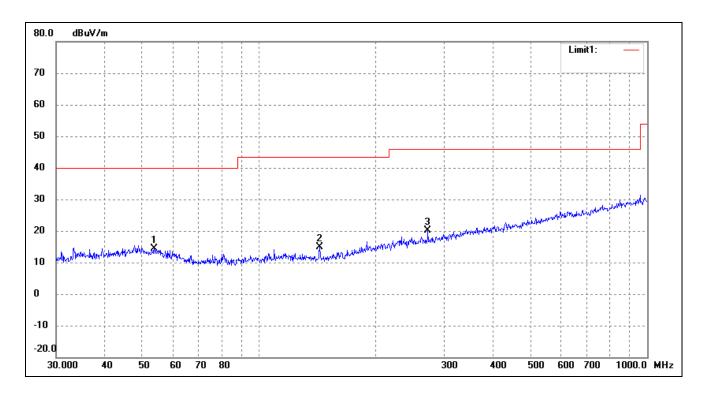
DC 9V (6 units of DC 1.5V AA-Size Battery)

Test Specification: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	48.3318	24.71	-9.21	15.50	40.00	-24.50	236	100	Peak
2	221.3921	25.37	-7.62	17.75	46.00	-28.25	17	100	Peak
3	578.6699	25.01	0.57	25.58	46.00	-20.42	128	100	Peak

Test Specification: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	53.6932	24.14	-9.76	14.38	40.00	-25.62	236	100	Peak
2	143.3261	26.36	-11.49	14.87	43.50	-28.63	74	100	Peak
3	272.2776	26.45	-6.34	20.11	46.00	-25.89	125	100	Peak

#### **Plot of Radiated Emissions Test Data**

Product Description: Bluetooth Device

Tested Model Number(s)/

UBW50WD2009360

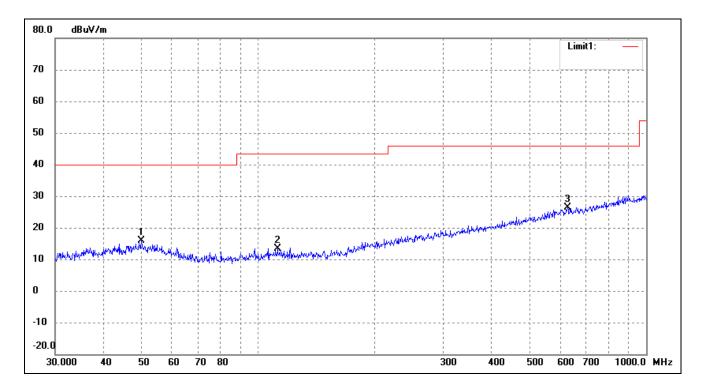
Item Number(s):

*Operating Condition:* 

Transmitting~(Highest~Channel:~2480~MHz)

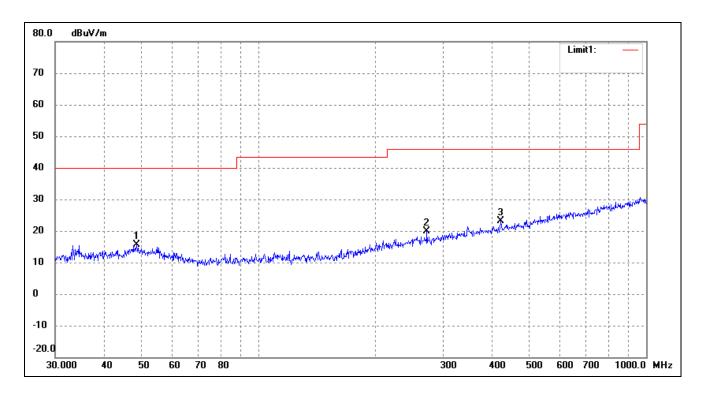
Power Source: DC 9V (6 units of DC 1.5V AA-Size Battery)

Test Specification: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	50.0566	24.81	-8.98	15.83	40.00	-24.17	321	100	Peak
2	112.1305	24.53	-11.14	13.39	43.50	-30.11	15	100	Peak
3	627.2738	24.90	1.41	26.31	46.00	-19.69	97	100	Peak

Test Specification: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	48.6719	24.74	-9.16	15.58	40.00	-24.42	325	100	Peak
2	272.2776	26.10	-6.34	19.76	46.00	-26.24	17	100	Peak
3	422.0577	25.41	-2.37	23.04	46.00	-22.96	154	100	Peak

#### Spurious Emissions above 1 GHz

*Transmitting: BLE mode:* 

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector		
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	H/V			
Lowest Channel: 2402 MHz									
4804.000	54.32	-3.59	50.73	74	-23.27	Н	Peak		
4804.000	45.93	-3.59	42.34	54	-11.66	Н	Average		
7206.000	49.38	-0.52	48.86	74	-25.14	Н	Peak		
7206.000	40.61	-0.52	40.09	54	-13.91	Н	Average		
4804.000	50.62	-3.59	47.03	74	-26.97	V	Peak		
4804.000	41.36	-3.59	37.77	54	-16.23	V	Average		
7206.000	50.67	-0.52	50.15	74	-23.85	V	Peak		
7206.000	40.92	-0.52	40.40	54	-13.60	V	Average		
Near Middle Channel: 2440 MHz									
4880.000	53.93	-3.49	50.44	74	-23.56	Н	Peak		
4880.000	44.37	-3.49	40.88	54	-13.12	Н	Average		
7320.000	49.17	-0.47	48.70	74	-25.30	Н	Peak		
7320.000	40.16	-0.47	39.69	54	-14.31	Н	Average		
4880.000	50.79	-3.49	47.30	74	-26.70	V	Peak		
4880.000	40.63	-3.49	37.14	54	-16.86	V	Average		
7320.000	51.11	-0.47	50.64	74	-23.36	V	Peak		
7320.000	41.32	-0.47	40.85	54	-13.15	V	Average		
Highest Channel: 2480 MHz									
4960.000	53.12	-3.41	49.71	74	-24.29	Н	Peak		
4960.000	44.05	-3.41	40.64	54	-13.36	Н	Average		
7440.000	49.83	-0.42	49.41	74	-24.59	Н	Peak		
7440.000	40.62	-0.42	40.20	54	-13.80	Н	Average		
4960.000	51.42	-3.41	48.01	74	-25.99	V	Peak		
4960.000	40.24	-3.41	36.83	54	-17.17	V	Average		
7440.000	51.86	-0.42	51.44	74	-22.56	V	Peak		
7440.000	41.64	-0.42	41.22	54	-12.78	V	Average		

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 2odB below the permissible limits or the field strength is too small to be measured.

### 9. Out of Band Emissions

#### 9.1 Standard Applicable

According to FCC Part 15.247 (d), 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

#### 9.2 Test Procedure

According to the KDB 558074 Do1 vo3ro5, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 1MHz for peak value measured

RBW = 1MHz, VBW = 10Hz for average value measured

Sweep = Auto; Detector function = Peak/Average; Trace = Max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205. Note that the method of measurement KDB publication number: 913591 may be used for the radiated bandedge measurements.

According to the KDB 558074 Do1 vo3ro5, the conducted spurious emissions test method as follows:

- 1. Set start frequency to DTS channel edge frequency.
- 2. Set stop frequency so as to encompass the spectrum to be examined.
- 3. Set RBW = 100 kHz.
- 4. Set VBW ≥ 300 kHz.
- 5. Detector = Peak.
- 6. Trace Mode = Max hold.
- 7. Sweep = Auto couple.
- 8. Allow the trace to stabilize (this may take some time, depending on the extent of the span).
- 9. Use peak marker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band

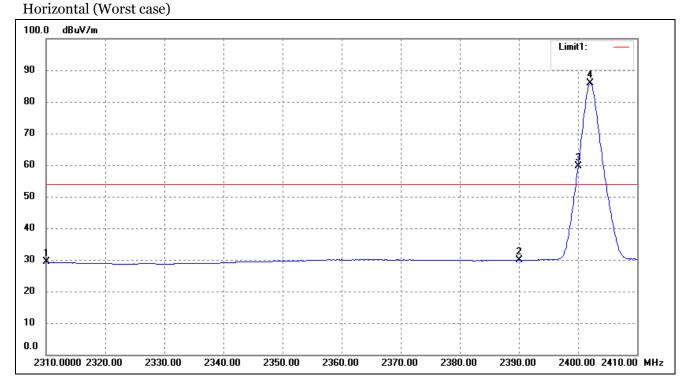
(excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in section 8.1. Report the three highest emissions relative to the limit.

### 9.3 Environmental Conditions

Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

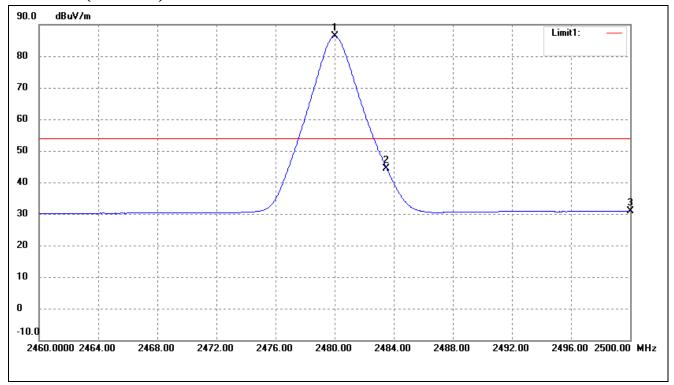
### 9.4 Summary of Test Results/Plots

Bandedge (Radiated)
Lowest Bandedge-BLE



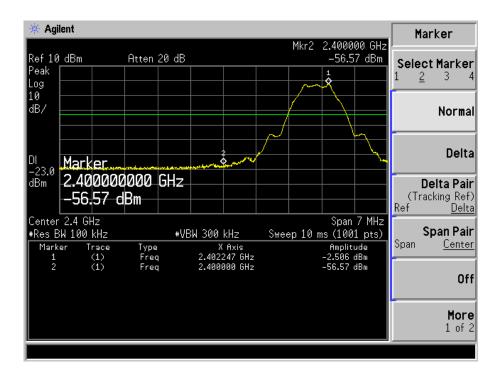
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	34.27	-4.98	29.29	54.00	-24.71	Average Detector
	2310.000	34.27	-4.98	29.29	54.00	-24.71	Peak Detector
2	2390.000	34.06	-4.27	29.79	54.00	-24.21	Average Detector
	2390.000	34.05	-4.26	29.79	54.00	-24.21	Peak Detector

### Highest Bandedge-BLE Horizontal (Worst case)

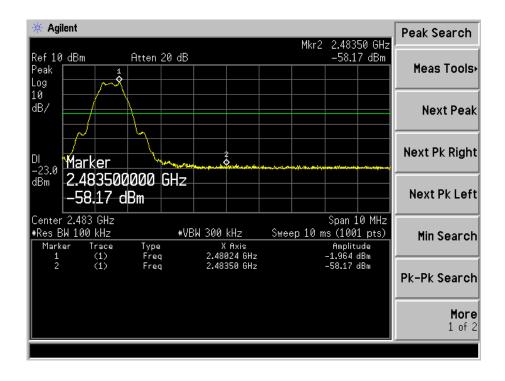


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2480.000	89.92	-3.55	86.37	54.00	32.37	Average Detector
	2480.000	91.00	-3.55	87.45	74.00	13.45	Peak Detector
2	2483.500	Delta = 41.91 dBc		44.48	54.00	-9.52	Average Detector
	2483.500			49.25	74.00	-24.75	Peak Detector
3	2500.000	34.29	-3.39	30.90	54.00	-23.10	Average Detector
	2500.000	47.39	-3.39	44.00	74.00	-30.00	Peak Detector

#### Lowest Bandedge (Conducted)



#### Highest Bandedge (Conducted)



#### \*\*\*\*\* END OF REPORT \*\*\*\*\*