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# **FCC REPORT**

**Applicant:** Sentey, Inc.

Address of Applicant: 11005 NW 33RD ST Miami, FL 33172 United States

**Equipment Under Test (EUT)** 

Product Name: B-Trek H9

Brand Name: SENTEY

Model No.: LS-4560

**FCC ID**: 2ACK2-LS-4560

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249:2013

Date of sample receipt: August 20, 2014

Date of Test: August 20, 2014 To August 26, 2014

Date of report issued: August 26, 2014

Test Result: PASS \*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Kevin Yu Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the EBO product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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## 2 Version

Version No.	Date	Description
00	August 26, 2014	Original

Prepared By:	Jason	Date:	August 26, 2014
	Project Engineer		
Check By:	Country	Date:	August 26, 2014
	Reviewer		

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## 4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Field strength of the fundamental signal	15.249 (a)	Pass
Spurious emissions	15.249 (a) (d)/15.209	Pass
Band edge	15.249 (d)/15.205	Pass
20dB Occupied Bandwidth	15.215 (c)	Pass

Pass: The EUT complies with the essential requirements in the standard.

N/A: not applicable.

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### 5 General Information

### 5.1 Client Information

Applicant:	Sentey, Inc.
Address of Applicant:	11005 NW 33RD ST Miami, FL 33172 United States
Manufacturer/Factory:	LABSIC INTERNATIONAL CO., LTD
Address of Manufacturer/	Rm.3702, Bldg. A2, R&F Yingzun Plaza, No.28 Machang Rd., CBD
Factory:	Tianhe Dist 510627, Guangzhou, China

### 5.2 General Description of EUT

-	<u></u>
Product Name:	B-Trek H9
Brand Name:	SENTEY
Model No.:	LS-4560
Operation Frequency:	2402MHz~2480MHz
Channel numbers:	40
Channel separation:	2MHz
Modulation type:	GFSK
Antenna Type:	PCB Antenna
Antenna gain:	0 dBi (declared by manufacturer)
Power supply:	DC 3.7V Li-ion Battery

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Channel list								
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency	
1	2402MHz	11	2422MHz	21	2442MHz	31	2462MHz	
2	2404MHz	12	2424MHz	22	2444MHz	32	2464MHz	
9	2418MHz	19	2438MHz	29	2458MHz	39	2478MHz	
10	2420MHz	20	2440MHz	30	2460MHz	40	2480MHz	

#### Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2440MHz
The Highest channel	2480MHz

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### 5.3 Test mode

Transmitting mode Keep the Bluetooth in continuously transmitting mode

Remark: 1.During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

### Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	X	Υ	Z
Field Strength(dBuV/m)	95.23	97.69	95.58

#### **Final Test Mode:**

According to ANSI C63.4 standards, the test result is "worst setup": Y axis (see the test setup photo)

### 5.4 Description of Support Units

None.

### 5.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### CNAS —Registration No.: CNAS L5775

CNAS has accredited Global United Technology Services Co., Ltd. To ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

#### • FCC —Registration No.: 600491

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fuly described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, June 28, 2013.

### Industry Canada (IC) —Registration No.: 9079A-2

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2. June 26. 2013.

### 5.6 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

### 5.7 Other Information Requested by the Customer

None.

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### 6 Test Instruments list

Radiated Emission:								
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 29 2013	Mar. 28 2015		
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A		
3	Spectrum Analyzer	Agilent	E4440A	GTS533	Dec. 5, 2013	Dec. 4 2014		
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 02 2014	Jul. 01 2015		
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Jul. 02 2014	Jul. 01 2015		
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	Jul. 02 2014	Jul. 01 2015		
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 28 2014	Mar. 27 2015		
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A		
9	Coaxial Cable	GTS	N/A	GTS213	Mar. 28 2014	Mar. 27 2015		
10	Coaxial Cable	GTS	N/A	GTS211	Mar. 28 2014	Mar. 27 2015		
11	Coaxial cable	GTS	N/A	GTS210	Mar. 28 2014	Mar. 27 2015		
12	Coaxial Cable	GTS	N/A	GTS212	Mar. 28 2014	Mar. 27 2015		
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 02 2014	Jul. 01 2015		
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 02 2014	Jul. 01 2015		
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	Jul. 02 2014	Jul. 01 2015		
16	Band filter	Amindeon	82346	GTS219	Mar. 28 2014	Mar. 27 2015		

Cond	Conducted Emission:									
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)				
1	Shielding Room	ZhongYu Electron	7.0(L)x3.0(W)x3.0(H)	GTS264	Sep. 07 2013	Sep. 06 2015				
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Jul. 02 2014	Jul. 01 2015				
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS224	Jul. 02 2014	Jul. 01 2015				
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	Jul. 02 2014	Jul. 01 2015				
5	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 02 2014	Jul. 01 2015				
6	Coaxial Cable	GTS	N/A	GTS227	Jul. 02 2014	Jul. 01 2015				
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A				

Gen	General used equipment:								
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)			
1	Barometer	ChangChun	DYM3	GTS257	Jul. 02 2014	Jul. 01 2015			

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### 7 Test results and Measurement Data

### 7.1 Antenna requirement:

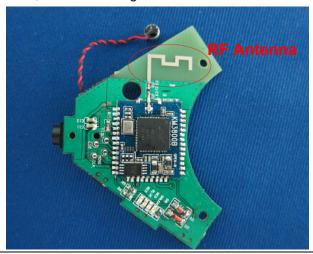
**Standard requirement:** FCC Part15 C Section 15.203

#### 15.203 requirement:

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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

### E.U.T Antenna:

The antenna is Integral antenna, the best case gain of the antenna is 0dBi



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### 7.2 Conducted Emissions

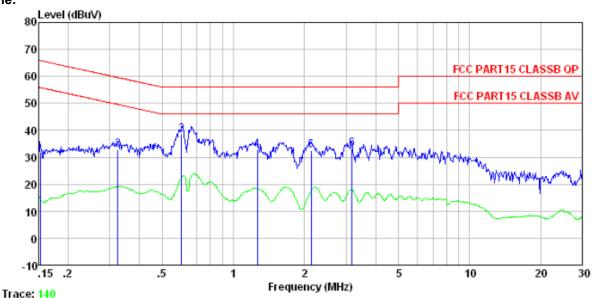
Test Requirement:	FCC Part15 C Section 15.207									
Test Method:	ANSI C63.4:2003									
Test Frequency Range:	150KHz to 30MHz									
Class / Severity:	Class B									
Receiver setup:	RBW=9KHz, VBW=30KHz, Sv	weep time=auto								
Limit:	[ [ [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	Limit (c	dBuV)							
	Frequency range (MHz)	Quasi-peak	Average							
	0.15-0.5     66 to 56*     56 to 46*       0.5-5     56     46									
	5-30 60 50									
	* Decreases with the logarithm of the frequency.									
Test setup:	Reference Plane									
	AUX Equipment E.U.T Equipment Under Test LISN Line Impedence Stabilization Network Test table height=0.8m									
Test procedure:	<ol> <li>The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</li> <li>Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed</li> </ol>									
Test Instruments:	Refer to section 6.0 for details									
Test mode:	Refer to section 5.3 for details									
Test results:	Pass									

#### Measurement data:

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#### Line:



Condition : FCC PART15 CLASSB QP LISN-2013 LINE

Test mode : Bluetooth mode

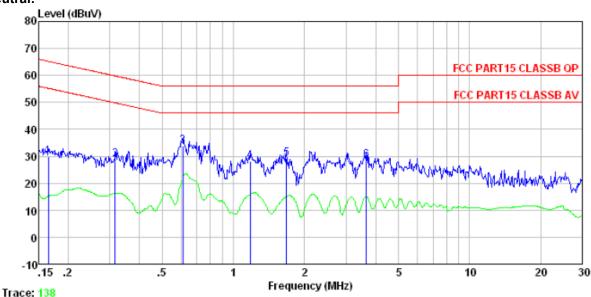
Test Engineer: Qing

	Freq		Cable Loss		Limit Line	Over Limit	Remark
	MHz	dBu₹	dB	dBuV	dBuV	dB	
1 2 3 4 5 6		31. 49 32. 61 38. 39 32. 60 32. 40 32. 72	0.10 0.12 0.13 0.15	31. 76 32. 82 38. 64 32. 86 32. 67 33. 04	59.57 56.00 56.00 56.00	-26. 75 -17. 36 -23. 14 -23. 33	QP QP QP QP

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#### Neutral:



Condition : FCC PART15 CLASSB QP LISN-2013 NEUTRAL

Test mode : Bluetooth mode

Test Engineer: Qing

	Freq	Read Level	Cable Loss		Limit Line	Over Limit	Remark	
	MHz	dBu₹	dB	dBu₹	dBu√	dB		
1 2 3 4 5	0. 611 1. 178 1. 680	29. 73 28. 69 33. 73 27. 83 28. 89 28. 14	0.10 0.12 0.13 0.14	29. 92 28. 85 33. 92 28. 04 29. 12 28. 43	59.80 56.00 56.00 56.00	-30. 95 -22. 08 -27. 96 -26. 88	QP QP QP QP	

#### Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss

If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

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### 7.3 Radiated Emission Method

 .5 Radiated Emission Method									
Test Requirement:	FCC Part15 C Section 15.209								
Test Method:	ANSI C63.4:20	03							
Test Frequency Range:	30MHz to 25GH	Ηz							
Test site:	Measurement D	Distance: 3m							
Receiver setup:	Frequency	Detector	RBW	VBW	Remark				
	30MHz- 1GHz	Quasi-peal	k 120KHz	300KHz	Quasi-peak Value				
	Above 1GHz	Peak	1MHz	3MHz	Peak Value				
	Above IGHZ	Peak	1MHz	10Hz	Average Value				
Limit:	Freque	ency	Limit (dBuV	/m @3m)	Remark				
(Field strength of the	0.4000MIL 0	400 51411	94.0	00	Average Value				
fundamental signal)	2400MHz-24	483.5MHZ	114.0	00	Peak Value				
	During the test, the RBW and VBW were set to 3MHz and 10MHz. Peak detector for peak value, Average detector for average value.								
Limit:	Frequency Limit (dBuV/m @3m) Remark								
(Spurious Emissions)	30MHz-8		00	Quasi-peak Value					
	88MHz-2 216MHz-9		43.5 46.0		Quasi-peak Value Quasi-peak Value				
	960MHz		54.0		Quasi-peak Value				
	Above '		54.0		Average Value				
				74.00 Peak Value					
Limit: (band edge)	harmonics, sha	Il be attenuat to the genera	ed by at least al radiated em	50 dB belov	bands, except for w the level of the in Section 15.209,				
Test setup:	Below 1GHz  Turn Table  Ground Plane  Above 1GHz	4m 4m 0.8m lm		Sea	na Tower reh enna				
	ADDVC TOTIZ								

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	Antenna Tower  Horn Antenna  Spectrum Analyzer  Turn Table  A A A A A A A A A A A A A A A A A A
Test Procedure:	The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
	The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
	3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
	The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

### Measurement data:

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### 7.3.1 Field Strength of The Fundamental Signal

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	94.90	27.58	5.39	30.18	97.69	114.00	-16.31	Vertical
2402.00	92.18	27.58	5.39	30.18	94.97	114.00	-19.03	Horizontal
2440.00	93.66	27.55	5.43	30.06	96.58	114.00	-17.42	Vertical
2440.00	91.24	27.55	5.43	30.06	94.16	114.00	-19.84	Horizontal
2480.00	92.44	27.52	5.47	29.93	95.50	114.00	-18.50	Vertical
2480.00	90.09	27.52	5.47	29.93	93.15	114.00	-20.85	Horizontal

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	84.17	27.58	5.39	30.18	86.96	94.00	-7.04	Vertical
2402.00	81.35	27.58	5.39	30.18	84.14	94.00	-9.86	Horizontal
2440.00	82.75	27.55	5.43	30.06	85.67	94.00	-8.33	Vertical
2440.00	80.36	27.55	5.43	30.06	83.28	94.00	-10.72	Horizontal
2480.00	81.56	27.52	5.47	29.93	84.62	94.00	-9.38	Vertical
2480.00	79.44	27.52	5.47	29.93	82.50	94.00	-11.50	Horizontal

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### 7.3.2 Spurious emissions

#### ■ Below 1GHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
129.02	50.18	11.12	1.43	31.90	30.83	43.50	-12.67	Vertical
143.83	49.62	10.22	1.53	31.96	29.41	43.50	-14.09	Vertical
195.14	42.96	12.57	1.81	32.13	25.21	43.50	-18.29	Vertical
336.04	43.23	15.99	2.55	32.07	29.70	46.00	-16.30	Vertical
432.55	40.85	17.53	3.01	31.78	29.61	46.00	-16.39	Vertical
601.43	37.77	20.46	3.73	31.04	30.92	46.00	-15.08	Vertical
86.81	44.80	12.89	1.08	31.73	27.04	40.00	-12.96	Horizontal
127.22	49.94	11.32	1.41	31.89	30.78	43.50	-12.72	Horizontal
143.83	47.95	10.22	1.53	31.96	27.74	43.50	-15.76	Horizontal
180.02	45.63	11.68	1.74	32.08	26.97	43.50	-16.53	Horizontal
239.99	47.16	14.09	2.07	32.16	31.16	46.00	-14.84	Horizontal
721.73	44.12	21.10	4.17	31.22	38.17	46.00	-7.83	Horizontal

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### Above 1GHz

Test channel: Lowest channel

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	36.91	31.78	8.60	32.09	45.20	74.00	-28.80	Vertical
7206.00	31.57	36.15	11.65	32.00	47.37	74.00	-26.63	Vertical
9608.00	31.24	37.95	14.14	31.62	51.71	74.00	-22.29	Vertical
12010.00	*					74.00		Vertical
14412.00	*					74.00		Vertical
4804.00	41.12	31.78	8.60	32.09	49.41	74.00	-24.59	Horizontal
7206.00	33.29	36.15	11.65	32.00	49.09	74.00	-24.91	Horizontal
9608.00	30.62	37.95	14.14	31.62	51.09	74.00	-22.91	Horizontal
12010.00	*					74.00		Horizontal
14412.00	*					74.00		Horizontal

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	25.80	31.78	8.60	32.09	34.09	54.00	-19.91	Vertical
7206.00	20.30	36.15	11.65	32.00	36.10	54.00	-17.90	Vertical
9608.00	19.40	37.95	14.14	31.62	39.87	54.00	-14.13	Vertical
12010.00	*					54.00		Vertical
14412.00	*					54.00		Vertical
4804.00	29.98	31.78	8.60	32.09	38.27	54.00	-15.73	Horizontal
7206.00	22.45	36.15	11.65	32.00	38.25	54.00	-15.75	Horizontal
9608.00	19.10	37.95	14.14	31.62	39.57	54.00	-14.43	Horizontal
12010.00	*					54.00		Horizontal
14412.00	*					54.00		Horizontal

### Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "\*", means this data is the too weak instrument of signal is unable to test.

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Test channel: Middle channel

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	36.11	31.85	8.67	32.12	44.51	74.00	-29.49	Vertical
7320.00	31.04	36.37	11.72	31.89	47.24	74.00	-26.76	Vertical
9760.00	30.76	38.35	14.25	31.62	51.74	74.00	-22.26	Vertical
12200.00	*					74.00		Vertical
14640.00	*					74.00		Vertical
4880.00	40.16	31.85	8.67	32.12	48.56	74.00	-25.44	Horizontal
7320.00	32.69	36.37	11.72	31.89	48.89	74.00	-25.11	Horizontal
9760.00	30.07	38.35	14.25	31.62	51.05	74.00	-22.95	Horizontal
12200.00	*					74.00		Horizontal
14640.00	*					74.00		Horizontal

### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4880.00	25.16	31.85	8.67	32.12	33.56	54.00	-20.44	Vertical
7320.00	19.87	36.37	11.72	31.89	36.07	54.00	-17.93	Vertical
9760.00	19.02	38.35	14.25	31.62	40.00	54.00	-14.00	Vertical
12200.00	*					54.00		Vertical
14640.00	*					54.00		Vertical
4880.00	29.26	31.85	8.67	32.12	37.66	54.00	-16.34	Horizontal
7320.00	21.96	36.37	11.72	31.89	38.16	54.00	-15.84	Horizontal
9760.00	18.65	38.35	14.25	31.62	39.63	54.00	-14.37	Horizontal
12200.00	*					54.00		Horizontal
14640.00	*					54.00		Horizontal

### Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "\*", means this data is the too weak instrument of signal is unable to test.

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Test channel: Highest channel

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	35.20	31.93	8.73	32.16	43.70	74.00	-30.30	Vertical
7440.00	30.44	36.59	11.79	31.78	47.04	74.00	-26.96	Vertical
9920.00	30.23	38.81	14.38	31.88	51.54	74.00	-22.46	Vertical
12400.00	*					74.00		Vertical
14880.00	*					74.00		Vertical
4960.00	39.06	31.93	8.73	32.16	47.56	74.00	-26.44	Horizontal
7440.00	32.01	36.59	11.79	31.78	48.61	74.00	-25.39	Horizontal
9920.00	29.45	38.81	14.38	31.88	50.76	74.00	-23.24	Horizontal
12400.00	*					74.00		Horizontal
14880.00	*					74.00		Horizontal

### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	24.44	31.93	8.73	32.16	32.94	54.00	-21.06	Vertical
7440.00	19.38	36.59	11.79	31.78	35.98	54.00	-18.02	Vertical
9920.00	18.58	38.81	14.38	31.88	39.89	54.00	-14.11	Vertical
12400.00	*					54.00		Vertical
14880.00	*					54.00		Vertical
4960.00	28.43	31.93	8.73	32.16	36.93	54.00	-17.07	Horizontal
7440.00	21.41	36.59	11.79	31.78	38.01	54.00	-15.99	Horizontal
9920.00	18.14	38.81	14.38	31.88	39.45	54.00	-14.55	Horizontal
12400.00	*					54.00		Horizontal
14880.00	*					54.00		Horizontal

### Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "\*", means this data is the too weak instrument of signal is unable to test.

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### 7.3.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

Test channel:	Lowest channel
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#### Peak value:

	=							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	44.23	27.59	5.38	30.18	47.02	74.00	-26.98	Horizontal
2400.00	56.72	27.58	5.39	30.18	59.51	74.00	-14.49	Horizontal
2390.00	44.91	27.59	5.38	30.18	47.70	74.00	-26.30	Vertical
2400.00	58.75	27.58	5.39	30.18	61.54	74.00	-12.46	Vertical

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	34.48	27.59	5.38	30.18	37.27	54.00	-16.73	Horizontal
2400.00	43.80	27.58	5.39	30.18	46.59	54.00	-7.42	Horizontal
2390.00	34.52	27.59	5.38	30.18	37.31	54.00	-16.69	Vertical
2400.00	45.57	27.58	5.39	30.18	48.36	54.00	-5.64	Vertical

Test channel:	Highest channel
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#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	46.50	27.53	5.47	29.93	49.57	74.00	-24.43	Horizontal
2500.00	45.41	27.55	5.49	29.93	48.52	74.00	-25.48	Horizontal
2483.50	47.57	27.53	5.47	29.93	50.64	74.00	-23.36	Vertical
2500.00	46.54	27.55	5.49	29.93	49.65	74.00	-24.35	Vertical

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.32	27.53	5.47	29.93	40.39	54.00	-13.61	Horizontal
2500.00	35.13	27.55	5.49	29.93	38.24	54.00	-15.76	Horizontal
2483.50	38.65	27.53	5.47	29.93	41.72	54.00	-12.28	Vertical
2500.00	35.16	27.55	5.49	29.93	38.27	54.00	-15.73	Vertical

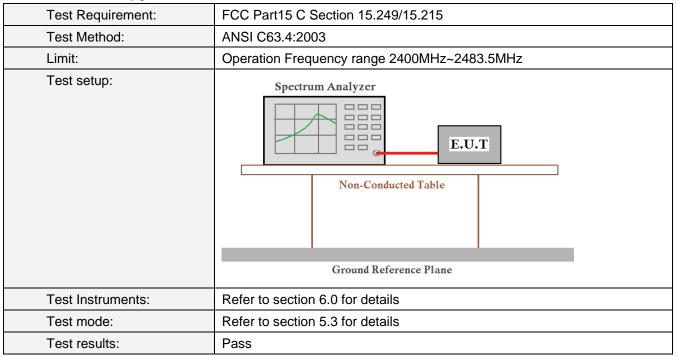
#### Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

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### 7.4 20dB Occupy Bandwidth



### **Measurement Data**

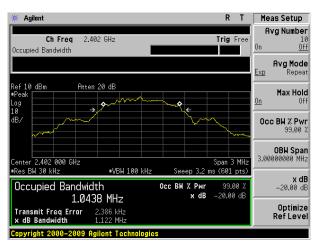
Worst case GFSK modulation

Test channel	20dB bandwidth(MHz)	Result
Lowest	1.122	Pass
Middle	1.118	Pass
Highest	1.122	Pass

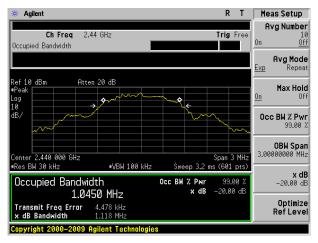
Test plot as follows:

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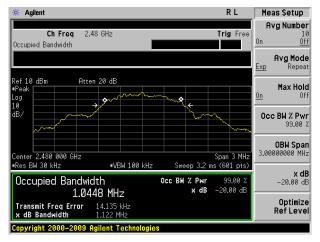
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#### Lowest channel



#### Middle channel



Highest channel

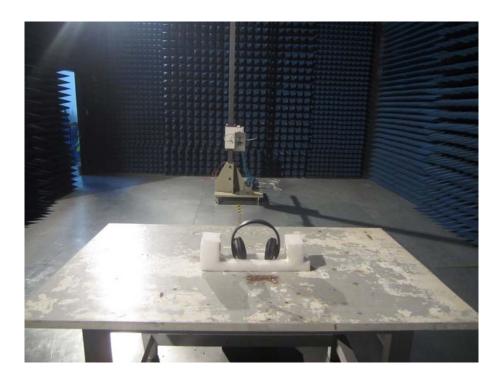
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## 8 Test Setup Photo

Radiated Emission





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### 9 EUT Constructional Details

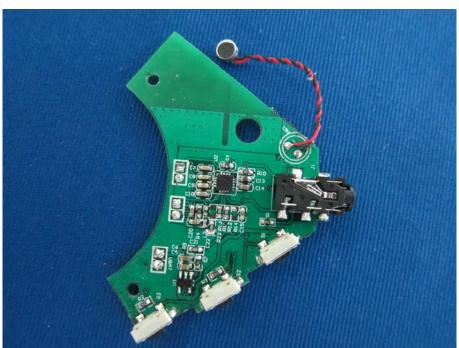




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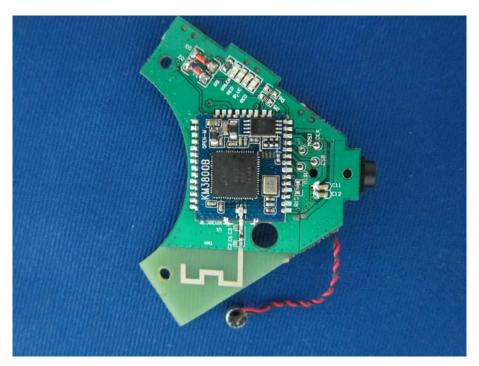
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