

FCC REPORT

Applicant: SHENZHEN QI SHENGLONG INDUSTRIALIST CO.,LTD.

Address of Applicant: 5F.,Blk 6A, Jing Nan Industry, Bai Ge long, Buji, Shenzhen, China

Equipment Under Test (EUT)

Product Name: VIDEO GAME

Model No.: C-12

FCC ID: Y56QSLC12

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

Date of sample receipt: December 26, 2014

Date of Test: January 15-21, 2015

Date of report issued: January 21, 2015

Test Result : PASS *

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

Authorized Signature:



Robinson Lo

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 GTS 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	January 21, 2015	Original

Prepared By:

Sam. Gao

Date:

January 21, 2015

Project Engineer

Check By:

hank. yan

Date:

January 21, 2015

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	N/A
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.

5 General Information

5.1 Client Information

Applicant:	SHENZHEN QI SHENGLONG INDUSTRIALIST CO.,LTD.
Address of Applicant:	5F.,Blk 6A, Jing Nan Industry, Bai Ge long, Buji, Shenzhen, China
Manufacturer/Factory:	DONGGUAN FEIHAO INDUSTRIALIST CO.,LTD
Address of Manufacturer/ Factory:	No.8, Fengyi Road, Dakan Village, Huangjiang, DongGuan, China

5.2 General Description of EUT

Product Name:	VIDEO GAME
Model No.:	C-12
Operation Frequency:	2407MHz~2471MHz
Channel numbers:	65
Channel separation:	1MHz
Modulation type:	GFSK
Antenna Type:	Internal Antenna
Antenna gain:	2.0dBi
Power supply:	DC 3.0V (2*“AAA” battery)

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2407 MHz	18	2424 MHz	35	2441 MHz	52	2458 MHz
2	2408 MHz	19	2425 MHz	36	2442 MHz	53	2459 MHz
3	2409 MHz	20	2426 MHz	37	2443 MHz	54	2460 MHz
4	2410 MHz	21	2427 MHz	38	2444 MHz	55	2461 MHz
5	2411 MHz	22	2428 MHz	39	2445 MHz	56	2462 MHz
6	2412 MHz	23	2429 MHz	40	2446 MHz	57	2463 MHz
7	2413 MHz	24	2430 MHz	41	2447 MHz	58	2464 MHz
8	2414 MHz	25	2431 MHz	42	2448 MHz	59	2465 MHz
9	2415 MHz	26	2432 MHz	43	2449 MHz	60	2466 MHz
10	2416 MHz	27	2433 MHz	44	2450 MHz	61	2467 MHz
11	2417 MHz	28	2434 MHz	45	2451 MHz	62	2468 MHz
12	2418 MHz	29	2435 MHz	46	2452 MHz	63	2469 MHz
13	2419 MHz	30	2436 MHz	47	2453 MHz	64	2470 MHz
14	2420 MHz	31	2437 MHz	48	2454 MHz	65	2471 MHz
15	2421 MHz	32	2438 MHz	49	2455 MHz		
16	2422 MHz	33	2439 MHz	50	2456 MHz		
17	2423 MHz	34	2440 MHz	51	2457 MHz		

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	2407MHz
The middle channel	2439MHz
The Highest channel	2471MHz

5.3 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
<i>Remark: 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.</i>	

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	Y	Z
Field Strength(dBuV/m)	93.24	95.21	94.06

Final Test Mode:

REMARK: NEW BATTERY IS USED DURING ALL TEST

According to ANSI C63.4 standards, the test results are both the “worst case” and “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 fully 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 Tel: 0755-27798480 Fax: 0755-27798960

5.7 Other Information Requested by the Customer

None.

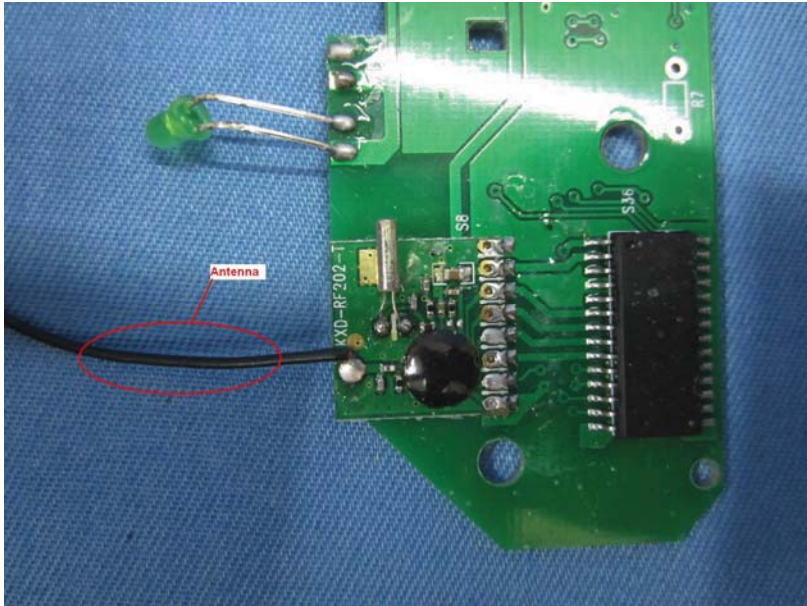
6 Test Instruments list

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 2014	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	Jul. 01 2014	Jun 30 2015
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 01 2014	Jun 30 2015
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Jul. 01 2014	Jun 30 2015
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 27 2014	June 26 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. 29 2014	Mar. 28 2015
10	Coaxial Cable	GTS	N/A	GTS211	Mar. 29 2014	Mar. 28 2015
11	Coaxial cable	GTS	N/A	GTS210	Mar. 29 2014	Mar. 28 2015
12	Coaxial Cable	GTS	N/A	GTS212	Mar. 29 2014	Mar. 28 2015
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 01 2014	Jun. 30, 2015
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 01 2014	Jun. 30, 2015
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 27 2014	June 26 2015
16	Band filter	Amindeon	82346	GTS219	Mar. 29 2014	Mar. 28 2015

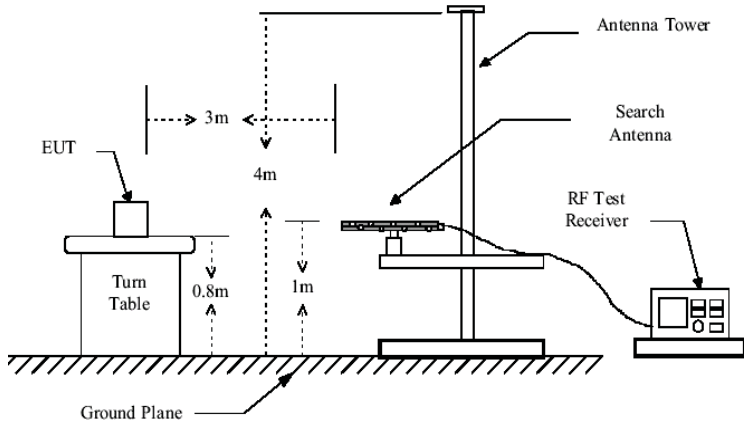
Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.0(L)x3.0(W)x3.0(H)	GTS264	July 01 2014	June 30 2015
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	July 01 2014	June 30 2015
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS224	July 01 2014	June 30 2015
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	July 01 2014	June 30 2015
5	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	July 01 2014	June 30 2015
6	Coaxial Cable	GTS	N/A	GTS227	July 01 2014	June 30 2015
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

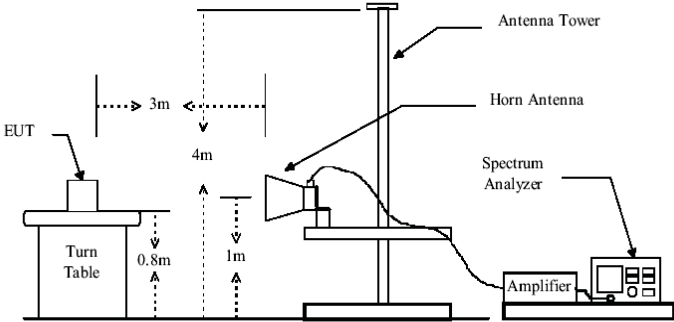
7 Test results and Measurement Data

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: <i>The antenna is PCB Antenna, the best case gain of the antenna is 2.0dBi</i>	
	

7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.4:2003				
Test Frequency Range:	30MHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit: (Field strength of the fundamental signal)	Frequency		Limit (dBuV/m @3m)		Remark
	2400MHz-2483.5MHz		94.00		Average Value
			114.00		Peak Value
Limit: (Spurious Emissions)	Frequency		Limit (dBuV/m @3m)		Remark
	30MHz-88MHz		40.00		Quasi-peak Value
	88MHz-216MHz		43.50		Quasi-peak Value
	216MHz-960MHz		46.00		Quasi-peak Value
	960MHz-1GHz		54.00		Quasi-peak Value
	Above 1GHz		54.00		Average Value
			74.00		Peak Value
Limit: (band edge)	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.				
Test setup:	Below 1GHz				
					
	Above 1GHz				

	 The diagram illustrates the test setup. An EUT (Equipment Under Test) is placed on a Turn Table at a height of 0.8m. The Turn Table is rotated 360 degrees. The EUT is positioned 3m away from the Antenna Tower. The Antenna Tower is a variable-height antenna tower with a Horn Antenna. The antenna height is varied from 1m to 4m. The Spectrum Analyzer is connected to the Antenna Tower via an Amplifier. The Spectrum Analyzer is set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
Test Procedure:	1. 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. 2. 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. 5. 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:

7.2.1 Field Strength of The Fundamental Signal

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2407.00	92.58	27.57	5.40	33.99	91.56	114.00	-22.44	Vertical
2407.00	95.81	27.57	5.40	33.99	94.79	114.00	-19.21	Horizontal
2439.00	93.66	27.48	5.43	33.96	92.61	114.00	-21.39	Vertical
2439.00	95.19	27.48	5.43	33.96	94.14	114.00	-19.86	Horizontal
2471.00	90.83	27.50	5.46	33.92	89.87	114.00	-24.13	Vertical
2471.00	96.17	27.50	5.46	33.92	95.21	114.00	-18.79	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2407.00	72.74	27.57	5.40	33.99	71.72	94.00	-22.28	Vertical
2407.00	77.13	27.57	5.40	33.99	76.11	94.00	-17.89	Horizontal
2439.00	75.11	27.48	5.43	33.96	74.06	94.00	-19.94	Vertical
2439.00	76.81	27.48	5.43	33.96	75.76	94.00	-18.24	Horizontal
2471.00	72.26	27.50	5.46	33.92	71.30	94.00	-22.70	Vertical
2471.00	77.56	27.50	5.46	33.92	76.60	94.00	-17.40	Horizontal

Remark: RBW 3MHz, VBW 10MHz , peak detector for PK value, RBW 3MHz, VBW 10MHz AV detector for AV value

7.2.2 Spurious emissions

■ Below 1GHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
31.40	30.04	14.32	0.57	30.09	14.84	40.00	-25.16	Vertical
95.76	28.95	14.90	1.16	29.72	15.29	43.50	-28.21	Vertical
167.82	35.91	10.90	1.67	29.33	19.15	43.50	-24.35	Vertical
324.46	26.48	15.53	2.49	29.86	14.64	46.00	-31.36	Vertical
497.68	22.36	18.52	3.29	29.31	14.86	46.00	-31.14	Vertical
684.75	22.53	20.75	4.04	29.21	18.11	46.00	-27.89	Vertical
31.51	26.40	14.32	0.57	30.09	11.20	40.00	-28.80	Horizontal
41.86	22.88	15.57	0.68	30.03	9.10	40.00	-30.90	Horizontal
95.76	23.09	14.90	1.16	29.72	9.43	43.50	-34.07	Horizontal
279.04	23.20	14.63	2.27	29.86	10.24	46.00	-35.76	Horizontal
552.88	22.70	19.62	3.53	29.30	16.55	46.00	-29.45	Horizontal
790.62	23.04	21.96	4.42	29.20	20.22	46.00	-25.78	Horizontal

■ Above 1GHz

Test channel:	Lowest channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4814.00	33.69	31.79	8.61	32.09	42.00	74.00	-32.00	Vertical
7221.00	28.55	36.19	11.66	31.99	44.41	74.00	-29.59	Vertical
9628.00	24.36	38.01	14.16	31.58	44.95	74.00	-29.05	Vertical
12035.00	*					74.00		Vertical
14442.00	*					74.00		Vertical
4814.00	34.11	31.79	8.61	32.09	42.42	74.00	-31.58	Horizontal
7221.00	27.74	36.19	11.66	31.99	43.60	74.00	-30.40	Horizontal
9628.00	23.36	38.01	14.16	31.58	43.95	74.00	-30.05	Horizontal
12035.00	*					74.00		Horizontal
14442.00	*					74.00		Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4814.00	23.46	31.79	8.61	32.09	31.77	54.00	-22.23	Vertical
7221.00	18.66	36.19	11.66	31.99	34.52	54.00	-19.48	Vertical
9628.00	14.87	38.01	14.16	31.58	35.46	54.00	-18.54	Vertical
12035.00	*					54.00		Vertical
14442.00	*					54.00		Vertical
4814.00	24.48	31.79	8.61	32.09	32.79	54.00	-21.21	Horizontal
7221.00	17.65	36.19	11.66	31.99	33.51	54.00	-20.49	Horizontal
9628.00	13.67	38.01	14.16	31.58	34.26	54.00	-19.74	Horizontal
12035.00	*					54.00		Horizontal
14442.00	*					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.

Test channel:	Middle channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4878.00	34.25	31.85	8.66	32.12	42.64	74.00	-31.36	Vertical
7317.00	26.12	36.37	11.72	31.89	42.32	74.00	-31.68	Vertical
9756.00	22.96	38.35	14.25	31.59	43.97	74.00	-30.03	Vertical
12195.00	*					74.00		Vertical
14634.00	*					74.00		Vertical
4878.00	34.43	31.85	8.66	32.12	42.82	74.00	-31.18	Horizontal
7317.00	26.27	36.37	11.72	31.89	42.47	74.00	-31.53	Horizontal
9756.00	22.04	38.35	14.25	31.59	43.05	74.00	-30.95	Horizontal
12195.00	*					74.00		Horizontal
14634.00	*					74.00		Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4878.00	26.64	31.85	8.66	32.12	35.03	54.00	-18.97	Vertical
7317.00	16.78	36.37	11.72	31.89	32.98	54.00	-21.02	Vertical
9756.00	12.56	38.35	14.25	31.59	33.57	54.00	-20.43	Vertical
12195.00	*					54.00		Vertical
14634.00	*					54.00		Vertical
4878.00	24.63	31.85	8.66	32.12	33.02	54.00	-20.98	Horizontal
7317.00	16.54	36.37	11.72	31.89	32.74	54.00	-21.26	Horizontal
9756.00	12.96	38.35	14.25	31.59	33.97	54.00	-20.03	Horizontal
12195.00	*					54.00		Horizontal
14634.00	*					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.

Test channel:	Highest channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4942.00	33.81	31.91	8.71	32.16	42.27	74.00	-31.73	Vertical
7413.00	27.34	36.56	11.77	31.81	43.86	74.00	-30.14	Vertical
9884.00	23.47	38.72	14.35	31.82	44.72	74.00	-29.28	Vertical
12355.00	*					74.00		Vertical
14826.00	*					74.00		Vertical
4942.00	33.97	31.91	8.71	32.16	42.43	74.00	-31.57	Horizontal
7413.00	26.99	36.56	11.77	31.81	43.51	74.00	-30.49	Horizontal
9884.00	22.66	38.72	14.35	31.82	43.91	74.00	-30.09	Horizontal
12355.00	*					74.00		Horizontal
14826.00	*					74.00		Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4942.00	23.06	31.91	8.71	32.16	31.52	54.00	-22.48	Vertical
7413.00	17.56	36.56	11.77	31.81	34.08	54.00	-19.92	Vertical
9884.00	13.46	38.72	14.35	31.82	34.71	54.00	-19.29	Vertical
12355.00	*					54.00		Vertical
14826.00	*					54.00		Vertical
4942.00	23.45	31.91	8.71	32.16	31.91	54.00	-22.09	Horizontal
7413.00	16.07	36.56	11.77	31.81	32.59	54.00	-21.41	Horizontal
9884.00	12.78	38.72	14.35	31.82	34.03	54.00	-19.97	Horizontal
12355.00	*					54.00		Horizontal
14826.00	*					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.

7.2.3 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)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	38.90	27.91	5.30	34.11	38.00	74.00	-36.00	Horizontal
2390.00	44.89	27.59	5.38	34.01	43.85	74.00	-30.15	Horizontal
2400.00	50.38	27.58	5.39	34.01	49.34	74.00	-24.66	Horizontal
2310.00	37.84	27.91	5.30	34.11	36.94	74.00	-37.06	Vertical
2390.00	41.98	27.59	5.38	34.01	40.94	74.00	-33.06	Vertical
2400.00	47.49	27.58	5.39	34.01	46.45	74.00	-27.55	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	27.02	27.91	5.30	34.11	26.12	54.00	-27.88	Horizontal
2390.00	27.33	27.59	5.38	34.01	26.29	54.00	-27.71	Horizontal
2400.00	27.90	27.58	5.39	34.01	26.86	54.00	-27.14	Horizontal
2310.00	27.02	27.91	5.30	34.11	26.12	54.00	-27.88	Vertical
2390.00	27.14	27.59	5.38	34.01	26.10	54.00	-27.90	Vertical
2400.00	27.48	27.58	5.39	34.01	26.44	54.00	-27.56	Vertical

Test channel:	Highest channel
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Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	44.76	27.53	5.47	33.92	43.84	74.00	-30.16	Horizontal
2500.00	40.78	27.55	5.49	33.90	39.92	74.00	-34.08	Horizontal
2483.50	41.93	27.53	5.47	33.92	41.01	74.00	-32.99	Vertical
2500.00	38.40	27.55	5.49	33.90	37.54	74.00	-36.46	Vertical

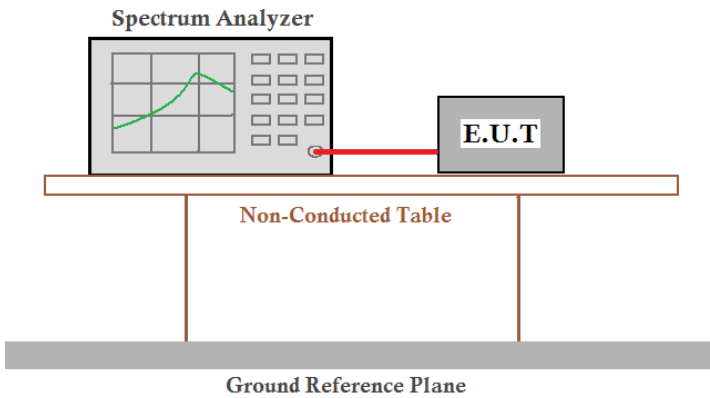
Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	27.26	27.53	5.47	33.92	26.34	54.00	-27.66	Horizontal
2500.00	26.34	27.55	5.49	33.90	25.48	54.00	-28.52	Horizontal
2483.50	26.31	27.53	5.47	33.92	25.39	54.00	-28.61	Vertical
2500.00	26.25	27.55	5.49	33.90	25.39	54.00	-28.61	Vertical

Remark:

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

7.3 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215
Test Method:	ANSI C63.4:2003
Limit:	Operation Frequency range 2400MHz~2483.5MHz
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

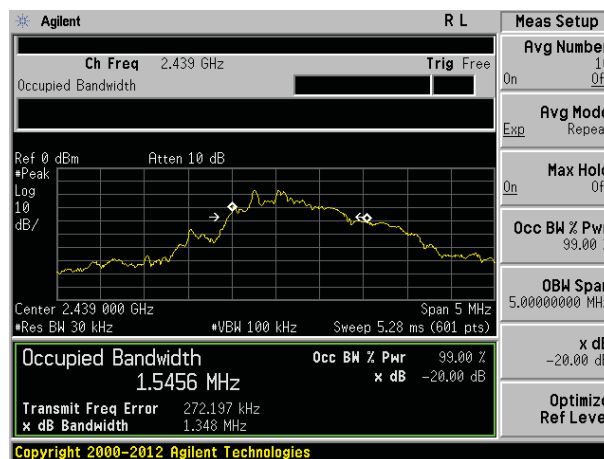
Measurement Data

Test channel	20dB bandwidth(MHz)	Result
Lowest	1.562	Pass
Middle	1.348	Pass
Highest	1.189	Pass

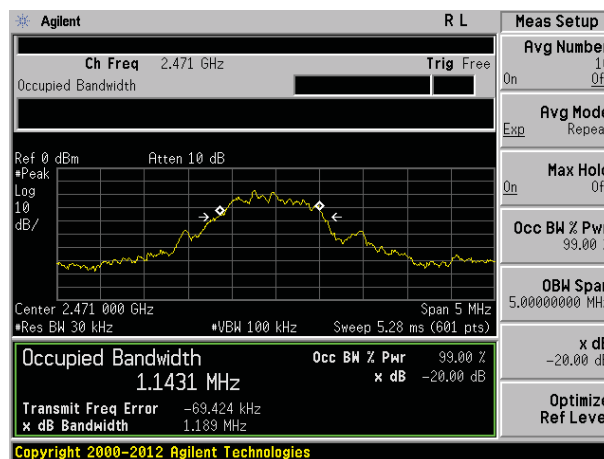
Test plot as follows:



Lowest channel



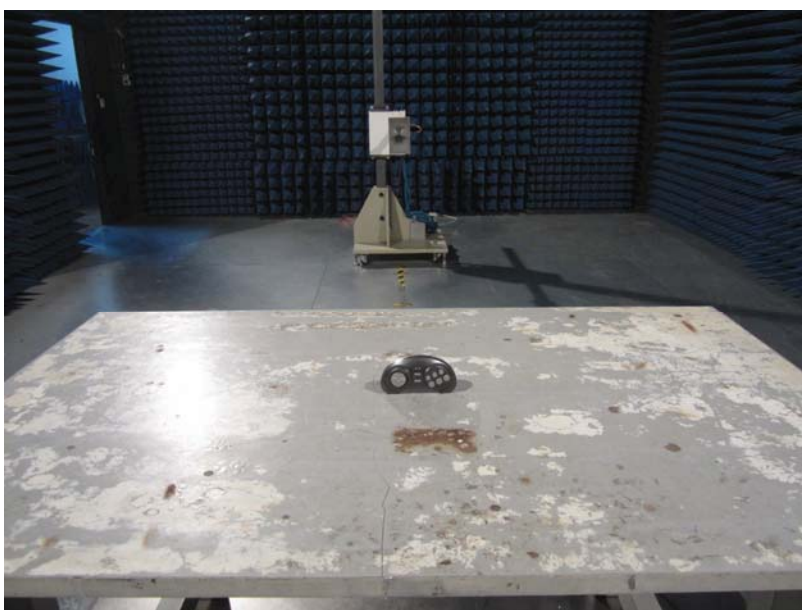
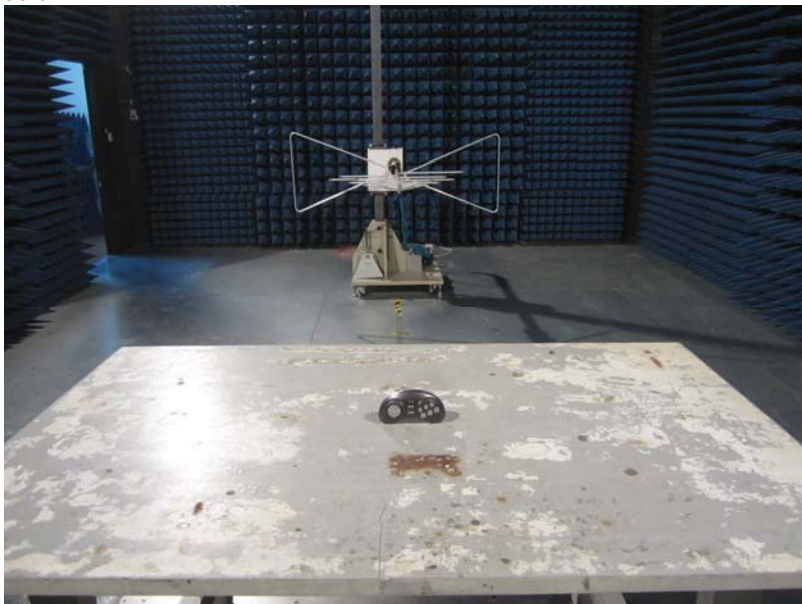
Middle channel



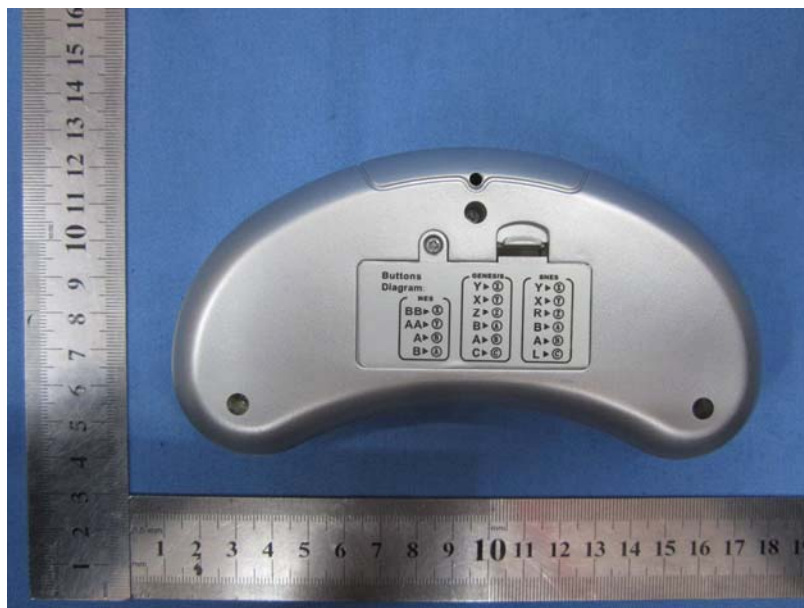
Highest channel

8 Test Setup Photo

Radiated Emission



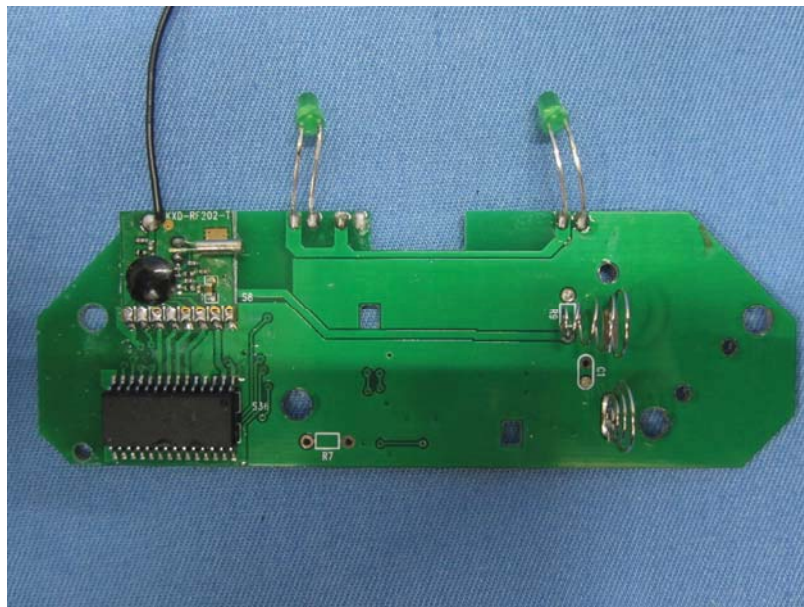
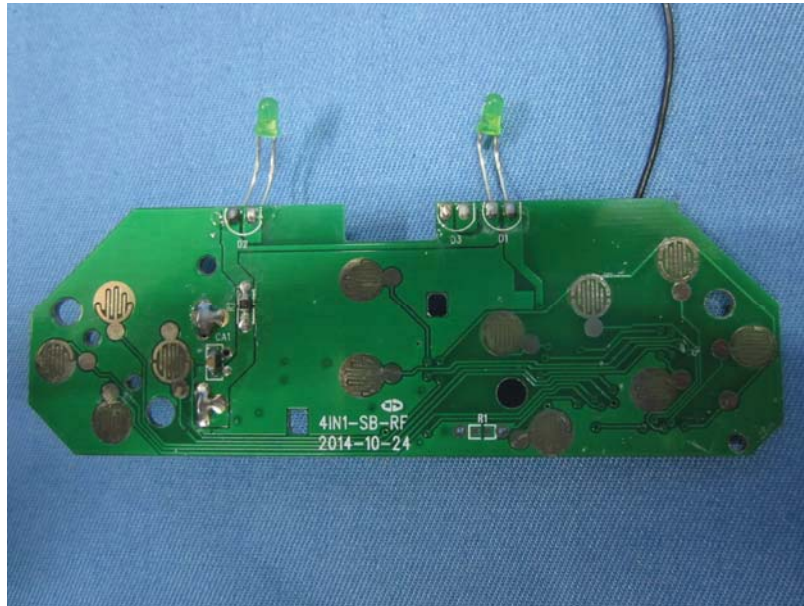
9 EUT Constructional Details

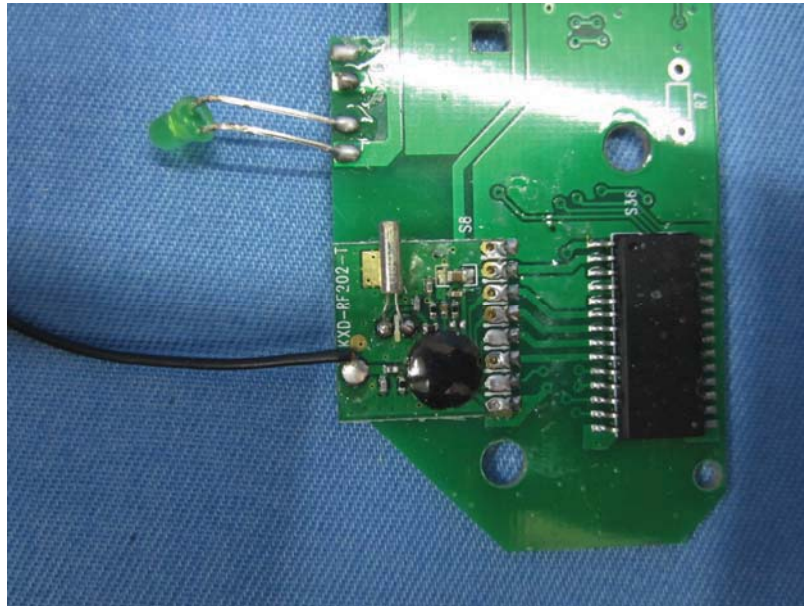












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