

FCC TEST REPORT

For
THE HOUFENGDA HARDWARE PRODUCTS CO., LTD.

H5018 Bluetooth Keyboard for ipad2
Model No.: H5018

Test Report Number : ESTSZ111201210F



EST COMPLIANCE LABORATORY LIMITED
4/F, 7th Building, Xinyuan Industrial Park, Xinguang Road,
Xili, Nanshan District, Shenzhen 518055, China
Tel:+86-755-26648640 Fax:+86-755-26648637

TABLE OF CONTENTS

1 - GENERAL INFORMATION	3
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	3
1.2 TEST STANDARDS	3
1.3 TEST METHODOLOGY	5
1.4 TEST FACILITY	5
1.5 TEST EQUIPMENT LIST AND DETAILS	6
2 - TEST PROCEDURE	7
3 DISTURBANCE VOLTAGE AT THE MAINS TERMINALS	8
3.1 MEASUREMENT UNCERTAINTY	8
3.2 REQUIREMENTS (15.207):	8
3.3 EUT SETUP	8
3.4 INSTRUMENT SETUP	8
3.5 TEST PROCEDURE	9
3.6 SUMMARY OF TEST RESULTS	9
3.7 DISTURBANCE VOLTAGE TEST DATA	9
3.8 TEST RESULTS	9
4- RADIATION INTERFERENCE	12
4.1 REQUIREMENTS (15.249, 15.209 & 15.35(B), 15.33(A)):	12
4.2 TEST RESULTS	12
5 - OCCUPIED BANDWIDTH	15
5.1 REQUIREMENTS (15.249):	15
5.2 TEST RESULTS	15
APPENDIX A - EUT PHOTOGRAPHS	17
EUT - TOP VIEW	17
EUT - BOTTOM VIEW	17
EUT - INSIDE VIEW	18
EUT - INSIDE VIEW	18
EUT - INSIDE VIEW	19
EUT - INSIDE VIEW	19
EUT - INSIDE VIEW	20
EUT - INSIDE VIEW	20
APPENDIX B. TEST SETUP PHOTOGRAPHS	21
CONDUCTED EMISSION	21
RADIATED EMISSION	21

1 - GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: THE HOUFENGDA HARDWARE PRODUCTS CO., LTD.
Address of applicant: C Building, Yinrenshi Industry Park, Shiyan, Baoan, Shenzhen, China
Manufacturer: THE HOUFENGDA HARDWARE PRODUCTS CO., LTD.
Address of manufacturer: C Building, Yinrenshi Industry Park, Shiyan, Baoan, Shenzhen, China

General Description of E.U.T

EUT Description: H5018 Bluetooth Keyboard for ipad2
Trade Name: N/A
Model No.: H5018
Rating: DC 3.7V
Test Power Supply: AC 120V/60Hz or DC 3.7V via Battery
Frequency: 2402~2480 MHz (See the table1)

Remark: *The models of EUT are identical except appearance of equipment. Unless otherwise specified, all tests were performed on model H5018 to represent the other similar models.*

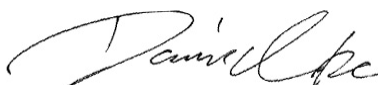
1.2 Test Standards

The following Declaration of Conformity report of EUT is prepared in accordance with
FCC Rules and Regulations Part 15 Subpart C 15.249: 2008

The objective of the manufacturer is to demonstrate compliance with the described above standards.
Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior written consent of EST COMPLIANCE LABORATORY LIMITED.

Date of Test : Dec. 12~26 , 2011

Prepared by :



(Engineer: David He)

Reviewer :



(Project Manager: Ronnie Liu)

Approved & Authorized Signer :



(Manager: Alex Chen)

Table1

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

BLUETOOTH		
Test Channel	EUT Channel	Test Frequency (MHz)
lowest	CH00	2402
middle	CH39	2441
highest	CH78	2480

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, 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 equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

The maximum emission levels emanating from the device are compared to the FCC Part 15 Subpart C limits for radiation emissions and the measurement results contained in this test report show that EUT is to be technically compliant with FCC requirements.

Global United Technology Service Co., Ltd at 2nd Floor, Block No.2, Laodong Industrial Zone,Xixiang Road, Baoan District, Shenzhen, China

1.4 Test Facility

All measurement required was performed at laboratory of Global United Technology Service Co., Ltd at 2nd Floor, Block No.2, Laodong Industrial Zone,Xixiang Road, Baoan District, Shenzhen, China

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

FCC – Registration No.: 600491

Global United Technology Service Co., Ltd 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 our files. Registration 600491.

The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

1.5 Test Equipment List and Details

Test equipments list of Global United Technology Service Co., Ltd

Equipment	Manufacturer	Model#	Serial #	Data of Cal.	Due Data
3m Semi-Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)*6.4(H)	GTS201	Mar. 30 2011	Mar. 30 2012
Control Room	ZhongYu Electron	6.2(L)*2.5(W)*2.4(H)	GTS202	N/A	N/A
EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Sept. 10 2011	Sept. 10 2012
EMI Test Software	AUDIX	E3	N/A	N/A	N/A
Coaxial Cable	GTS	N/A	GTS400	Apr. 01 2011	Apr. 01 2012
Coaxial Cable	GTS	N/A	GTS401	Apr. 01 2011	Apr. 01 2012
Coaxial Cable	GTS	N/A	GTS402	Apr. 01 2011	Apr. 01 2012
Coaxial Cable	GTS	N/A	GTS407	Apr. 01 2011	Apr. 01 2012
Coaxial Cable	GTS	N/A	GTS408	Apr. 01 2011	Apr. 01 2012
BiConiLog Antenna (26-3000MHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS204	Feb. 26 2011	Feb. 26 2012
Pre-amplifier(0.1-3000MHz)	HP	8347A	GTS210	Aug. 03 2011	Aug. 03 2012
Double-ridged horn (1-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS205	Jun. 30 2011	Jun. 30 2012
Pre-amplifier(1-18GHz)	Rohde & Schwarz	8349B	GTS224	Aug. 03 2011	Aug. 03 2012
Humidity/Temperature Indicator	Shanghai	ZJ1-2B	GTS250	Oct. 28 2011	Oct. 28 2012
Barometer	ChangChun	DYM3	GTS251	Jul. 11 2011	Jul. 11 2012
Shielding Room	ZhongYu Electron	7.0(L)*3.0(W)*3.0(H)	GTS206	Apr. 10 2011	Apr. 10 2012
EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS208	Sept. 14 2011	Sept. 14 2012
10dB Pulse Limiter	Rohde & Schwarz	N/A	GTS209	Sept. 14 2011	Sept. 14 2012
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS207	Apr. 14 2011	Apr. 14 2012
Coaxial Cable	GTS	N/A	GTS406	Apr. 01 2011	Apr. 01 2012
Loop Antenna	ETS-Lindgren	6502	00082431	Apr. 14 2011	Apr. 14 2013

2 - Test Procedure

GENERAL: This report shall NOT be reproduced except in full without the written approval of EST Compliance Laboratory Limited. The EUT was transmitting a test signal during the testing.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-2003 using a spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100KHz and the video bandwidth was 300KHz up to 1.0GHz and 1.0MHz with a video BW of 3.0MHz above 1.0GHz. The ambient temperature of the EUT was 74.3oF with a humidity of 69%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz) METER READING + ACF = FS
33 20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

3 DISTURBANCE VOLTAGE AT THE MAINS TERMINALS

3.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.4 dB.

3.2 Requirements (15.207):

Frequency Range (MHz)	Limits (dBuV)	
	Quasi-Peak	Average
0.150 ~ 0.500	66~56	56~46
0.500 ~ 5.000	56	46
5.000 ~ 30.00	60	50

Note: (1)The tighter limit shall apply at the edge between two frequency bands.

3.3 EUT Setup

The setup of EUT is according with ANSI C63.4-2003 measurement procedure. The specification used was the FCC Rules and Regulations Part 15 Subpart B limits.

The EUT was placed center and the back edge of the test table.

The AV cables were draped along the test table and bundled to 30-40cm in the middle.

The spacing between the peripherals was 10 cm.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.

3.4 Instrument Setup

The test receiver was set with the following configurations:

Test Receiver Setting:

Frequency Range.....150 KHz to 30 MHz
 Detector.....Peak & Quasi-Peak & Average
 Sweep Speed.....Auto
 IF Band Width.....9 KHz

3.5 Test Procedure

During the conducted emission test, the EUT power cord was connected to the auxiliary outlet of the first Artificial Mains.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance using all installation combination.

All data was recorded in the peak detection mode. Quasi-peak and Average readings were only performed when an emission was found to be marginal (within -10 dB μ V of specification limits). Quasi-peak readings are distinguished with a "QP". Average readings are distinguished with a "AV".

3.6 Summary of Test Results

According to the data in section 3.6, the EUT complied with the FCC Part 15 Subpart B Conducted margin, with the *worst* margin reading of:

3.7 Disturbance Voltage Test Data

Temperature ()	26
Humidity (%RH)	58
Barometric Pressure (mbar)	1001.1
EUT	H5018 Bluetooth Keyboard for ipad2
M/N	H5018
Operating Mode	ON

Test data see following pages.

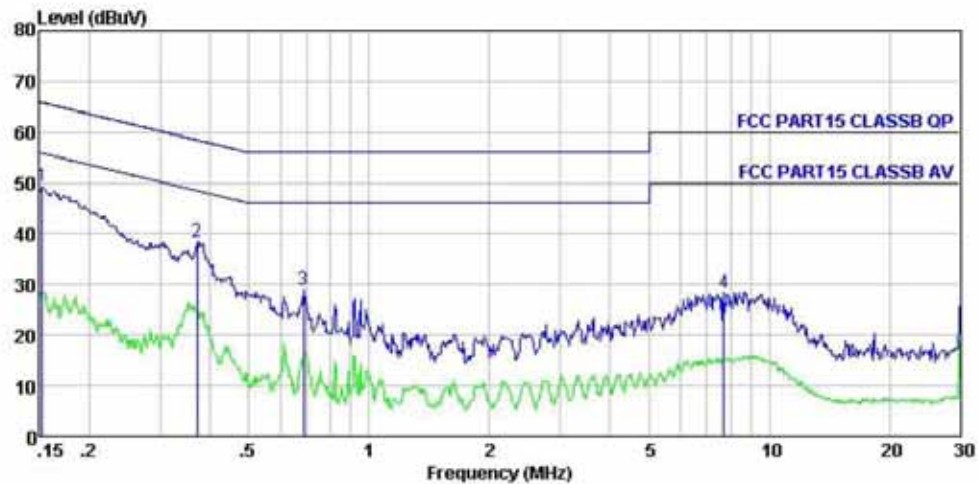
Remark: (1) When PK reading is less than relevant limit 20dB, the QP reading and AV reading will not be recorded.
(2) Where QP reading is less than relevant AV limit, the AV reading will not be measured

3.8 Test Results

PASS.

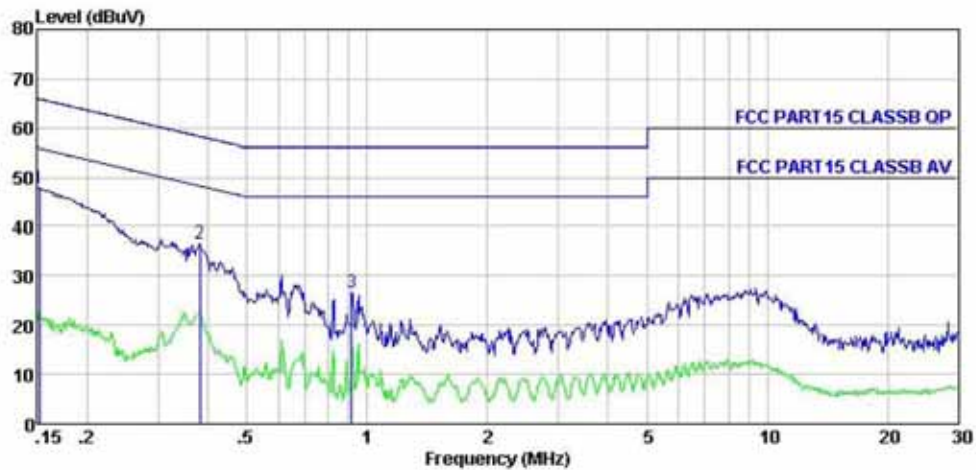
Please refer the following pages.

Conducted Emission Test Data



Condition : FCC PART15 CLASSB QP LISN(2011) NEUTRAL
 EUT : H5018 Bluetooth Keyboard for iPad2
 Model : H5018
 Test mode:: Charging mode
 Power: : AC 120V/60Hz
 Engineer: : David

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.152	48.61	0.69	0.10	49.40	65.87	-16.47	QP
2	0.371	37.58	0.59	0.10	38.27	58.47	-20.20	QP
3	0.686	28.32	0.52	0.10	28.94	56.00	-27.06	QP
4	7.687	27.84	0.25	0.17	28.26	60.00	-31.74	QP



Condition : FCC PART15 CLASSB QP LISN(2011) LINE
 EUT : H5018 Bluetooth Keyboard for iPad2
 Model : H5018
 Test mode:: Charging mode
 Power: : AC 120V/60Hz
 Engineer: : David

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.152	46.97	0.69	0.10	47.76	65.91	-18.15	QP
2	0.381	35.88	0.58	0.10	36.56	58.25	-21.69	QP
3	0.914	25.96	0.49	0.10	26.55	56.00	-29.45	QP

4- Radiation Interference

4.1 Requirements (15.249, 15.209 & 15.35(b), 15.33(a)):

FIELD STRENGTH of Fundamental: 902-928 MHz 2.4-2.4835 GHz 94 dBμV/m @3m	FIELD STRENGTH of Harmonics 54 dBμV/m @3m	S15.209 30 - 88 MHz 88 - 216 MHz 216 - 960 MHz ABOVE 960 MHz	40 dBuV/m @3M 43.5 46 54dBuV/m
---	---	--	---

4.2 Test Results

PASS.

Please refer the following pages.

Data (From 9KHz ~ 30MHz):

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)	Remark	Direction (H/V)
12.05	50.25	5.23	0.32	25.55	30.25	49.5	-19.25	QP	-
24.10	50.77	5.64	0.43	25.67	31.17	49.5	-18.33	QP	-

Emissions attenuated more than 20 dB below the permissible value are not reported.

Data (From 30MHz ~ 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)	Remark	Direction (H/V)
127.22	43.83	8.48	1.37	26.21	27.47	43.50	-16.03	QP	H
183.20	38.82	9.62	1.70	25.99	24.15	43.50	-19.35	QP	H
911.03	41.21	19.71	2.92	31.14	32.70	46.00	-13.30	QP	H
50.94	41.83	12.28	0.68	26.41	28.38	40.00	-11.62	QP	V
183.20	45.38	9.42	1.70	25.99	30.51	43.50	-12.99	QP	V
881.46	39.79	19.67	2.81	31.18	31.08	46.00	-14.92	QP	V

Emissions attenuated more than 20 dB below the permissible value are not reported.

FCC ID: A70001

Data (Above 1GHz to the tenth Harmonic, Average):**CH Low(2402MHz)**

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)	Remark	Direction (H/V)
2402	82.10	27.59	3.38	30.04	83.03	94	-10.97	Average	H
4804	28.86	31.79	5.34	24.09	41.9	54	-12.1	Average	H
7206	28.99	36.19	6.88	26.41	45.65	54	-8.35	Average	H
9968	22.33	38.07	8.96	25.37	43.99	54	-10.01	Average	H
2402	84.09	27.59	3.38	30.04	85.02	94	-8.98	Average	V
4804	31.19	31.79	5.34	24.09	44.23	54	-9.77	Average	V
7206	29.58	36.19	6.88	26.41	46.24	54	-7.76	Average	V
9968	24.01	38.07	8.96	25.37	45.67	54	-8.33	Average	V

CH Middle(2441MHz)

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)	Remark	Direction (H/V)
2441	82.04	27.48	3.43	29.99	82.96	94	-11.04	Average	H
4882	31.01	31.82	5.5	24.21	44.12	54	-9.88	Average	H
7323	28.45	36.37	6.91	26.62	45.11	54	-8.89	Average	H
9764	22.11	38.35	9.01	25.3	44.17	54	-9.83	Average	H
2441	86.21	27.48	3.43	29.99	87.13	94	-6.87	Average	V
4882	32.16	31.82	5.5	24.21	45.27	54	-8.73	Average	V
7323	30.61	36.37	6.91	26.62	47.27	54	-6.73	Average	V
9764	23.33	38.35	9.01	25.3	45.39	54	-8.61	Average	V

CH High(2480MHz)

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)	Remark	Direction (H/V)
2480	82.04	27.49	3.46	29.96	83.03	94	-11.17	Average	H
4960	30.22	31.91	5.46	23.94	43.65	54	-10.35	Average	H
7440	27.09	36.49	6.93	26.79	43.72	54	-10.28	Average	H
9920	24.64	38.72	9.06	25.24	47.18	54	-6.82	Average	H
2480	85.47	27.49	3.46	29.96	86.46	94	-7.54	Average	V
4960	31.12	31.91	5.46	23.94	44.55	54	-9.45	Average	V
7440	30.00	36.49	6.93	26.79	46.63	54	-7.37	Average	V
9920	22.16	38.72	9.06	25.24	44.7	54	-9.3	Average	V

Because emissions attenuated more than 20 dB below the permissible value, the 5-10th and the other harmonic frequency are not reported.

FCC ID: A70001

Data (Above 1GHz to the tenth Harmonic, Peak):**CH Low(2402MHz)**

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)	Remark	Direction (H/V)
2402	93.16	27.59	3.38	30.04	94.09	114	19.91	Peak	H
4804	39.89	31.79	5.34	24.09	52.93	74	-20.07	Peak	H
7206	40.00	36.19	6.88	26.41	56.66	74	-17.34	Peak	H
9968	35.15	38.07	8.96	25.37	56.81	74	-13.19	Peak	H
2402	94.01	27.59	3.38	30.04	94.94	114	-19.06	Peak	V
4804	42.15	31.79	5.34	24.09	55.19	74	-18.81	Peak	V
7206	41.41	36.19	6.88	26.41	58.07	74	-15.93	Peak	V
9968	36.04	38.07	8.96	25.37	58.70	74	-15.30	Peak	V

CH Middle(2441MHz)

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)	Remark	Direction (H/V)
2441	96.95	27.48	3.43	29.99	97.87	114	-16.13	Peak	H
4882	37.55	31.82	5.5	24.21	50.66	74	-23.34	Peak	H
7323	41.52	36.37	6.91	26.62	58.18	74	-15.82	Peak	H
9764	37.82	38.35	9.01	25.3	59.88	74	-14.12	Peak	H
2441	97.19	27.48	3.43	29.99	98.11	114	-15.89	Peak	V
4882	41.11	31.82	5.5	24.21	54.22	74	-19.78	Peak	V
7323	42.62	36.37	6.91	26.62	59.28	74	-14.72	Peak	V
9764	40.01	38.35	9.01	25.3	61.98	74	-12.02	Peak	V

CH High(2480MHz)

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)	Remark	Direction (H/V)
2480	89.79	27.49	3.46	29.96	90.78	114	-23.22	Peak	H
4960	41.33	31.91	5.46	23.94	53.76	74	-20.24	Peak	H
7440	40.43	36.49	6.93	26.79	57.06	74	-18.94	Peak	H
9920	35.67	38.72	9.06	25.24	58.21	74	-15.79	Peak	H
2480	94.28	27.49	3.46	29.96	95.27	114	-18.73	Peak	V
4960	42.89	31.91	5.46	23.94	56.32	74	-17.68	Peak	V
7440	41.70	36.49	6.93	26.79	58.33	74	-15.67	Peak	V
9920	36.66	38.72	9.06	25.24	59.2	74	-14.8	Peak	V

Because emissions attenuated more than 20 dB below the permissible value, the 5-10th and the other harmonic frequency are not reported.

5 - Occupied Bandwidth

5.1 Requirements (15.249):

The field strength of any emissions appearing outside the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 50 dB below the level of the carrier or to the general limits of 15.249.

5.2 Test Results

Pass.
Please refer the following page.

FCC ID: A7O001

CH Low(2402MHz)

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)	Remark	Direction (H/V)
2393.97	44.31	27.58	3.33	30.09	45.21	74	-28.79	Peak	H
2400.00	45.47	27.57	3.37	30.09	46.32	74	-27.68	Peak	H
2393.97	33.38	27.58	3.33	30.09	34.19	54	-20.91	Average	H
2400.00	35.44	27.57	3.37	30.09	36.29	54	-17.71	Average	H
2393.97	46.14	27.58	3.33	30.09	46.96	74	-27.26	Peak	V
2400.00	46.54	27.57	3.37	30.09	47.39	74	-26.61	Peak	V
2393.97	35.02	27.58	3.33	30.09	35.84	54	-18.16	Average	V
2400.00	36.53	27.57	3.37	30.09	37.38	54	-16.62	Average	V

CH High(2480MHz)

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)	Remark	Direction (H/V)
2483.5	43.50	27.54	3.49	29.94	44.59	74	-29.41	Peak	H
2486.79	43.38	27.54	3.49	29.94	44.47	74	-29.53	Peak	H
2483.5	34.10	27.54	3.49	29.94	35.19	54	-18.81	Average	H
2486.79	34.86	27.54	3.49	29.94	35.95	54	-18.05	Average	H
2483.5	46.01	27.54	3.49	29.94	47.10	74	-26.8	Peak	V
2486.79	46.32	27.54	3.49	29.94	47.41	74	-26.59	Peak	V
2483.5	36.04	27.54	3.49	29.94	37.13	54	-16.87	Average	V
2486.79	35.40	27.54	3.49	29.94	36.49	54	-17.51	Average	V