FCC Test Report

Product Name ： PAPAGO! GPS Sport Watch
Model No. ： GoWatch770
FCC ID. ： 2AA5BPPGW770

Applicant ： GOLIFE INC.
Address ： 4F.-5, No.56, Ln. 321, Yangguang St., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

Date of Receipt ： 2013/08/30
Issued Date ： 2013/10/14
Report No. ： 139102R-RFUSP44V01
Report Version ： V1.0

Test Report Certification

Issued Date : 2013/10/14
Report No. : 139102R-RFUSP44V01

QuieTek

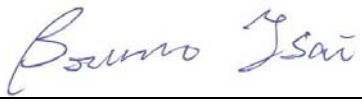
Product Name	:	PAPAGO! GPS Sport Watch
Applicant	:	GOLIFE INC.
Address	:	4F.-5, No.56, Ln. 321, Yangguang St., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)
Manufacturer	:	TRANSYSTEM INC.
Model No.	:	GoWatch770
Trade Name	:	PAPAGO!
FCC ID.	:	2AA5BPPGW770
EUT Voltage	:	DC 5V (Power by PC)
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.249: 2012
Test Result	:	Complied

The test results relate only to the samples tested.

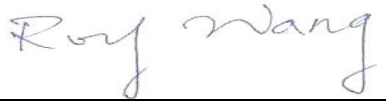
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Documented By : 

(Carol Tsai / Engineering Adm. Assistant)

Reviewed By : 

(Bruno Tsai / Assistant Engineer)

Approved By : 

(Roy Wang / Manager)

Laboratory Information

We, **QuieTek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C.	**:**	**TAF, Accreditation Number: 1313**
USA	**:**	**FCC, Registration Number: 365520**
Canada	**:**	**IC, Submission No: 150981**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site:http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory:
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory:
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

Product Name	PAPAGO! GPS Sport Watch
Trade Name	PAPAGO!
Model No.	GoWatch770
Frequency Range/Channel Number	2457MHz / 1Channels
Antenna Gain	0dBi
Type of Modulation	GFSK
Antenna Type	Patch

Working Frequency of Each Channel	
Channel	Frequency
Channel 01	2457 MHz

Note:

1. This device is a PAPAGO! GPS Sport Watch included a 2.4GHz transmitting function.
2. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.249.
3. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
5. This device is a composite device in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is 139102R-RFUSP37V02 under Declaration of Conformity.

1.3. Test Mode

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode	
EMI	Mode 1: Transmit
Final Test Mode	
TX	Mode 1: Transmit

Emission	
Performed Item	Test
Conducted Emission	Yes
Fundamental Power	Yes
Radiated Emission	Yes
Band Edge	Yes

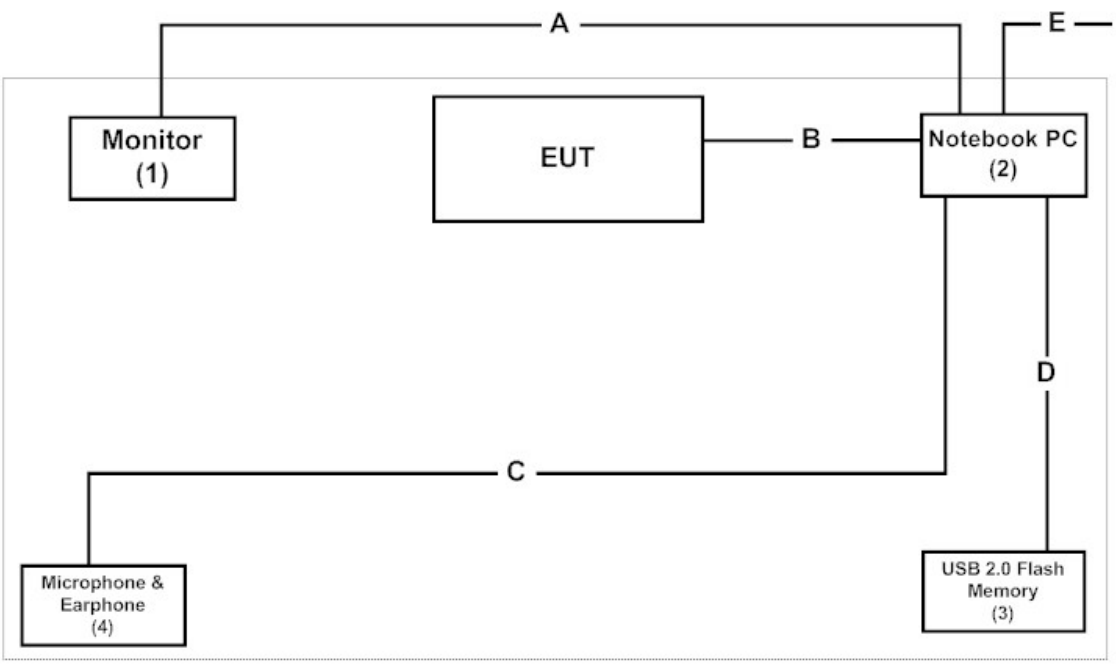
1.4. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Monitor	DELL	U2410f	082WXD-72872-16R-0V7L	DoC	Non-Shielded, 1.8m
2	Notebook PC	HP	HSTNN-146C	CNU8253S1X	DoC	Non-Shielded, 1.8m
3	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--
4	Microphone & Earphone	Fujiei	SBZ-38	N/A	DoC	--

1.5. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	VGA Cable	Shielded, 1.8m, two ferrite cores bonded.
B	USB Cable	Shielded, 1m
C	Microphone & Earphone Cable	Non-Shielded, 1.2m
D	USB 2.0 Flash Memory Cable	Shielded, 1m
E	LAN Cable	Non-Shielded, 3m

1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.5.
2	Execute the “EB View v0.0.01A” program to control the EUT.
3	Configure the test mode, the test channel, and the data rate.
4	The EUT will continue transmitting.
5	Verify that the EUT works properly.
6	Repeat the above procedure (3) to (5).

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.209 Conducted Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.209 Fundamental Power	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.209 Radiated Emission	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.249 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

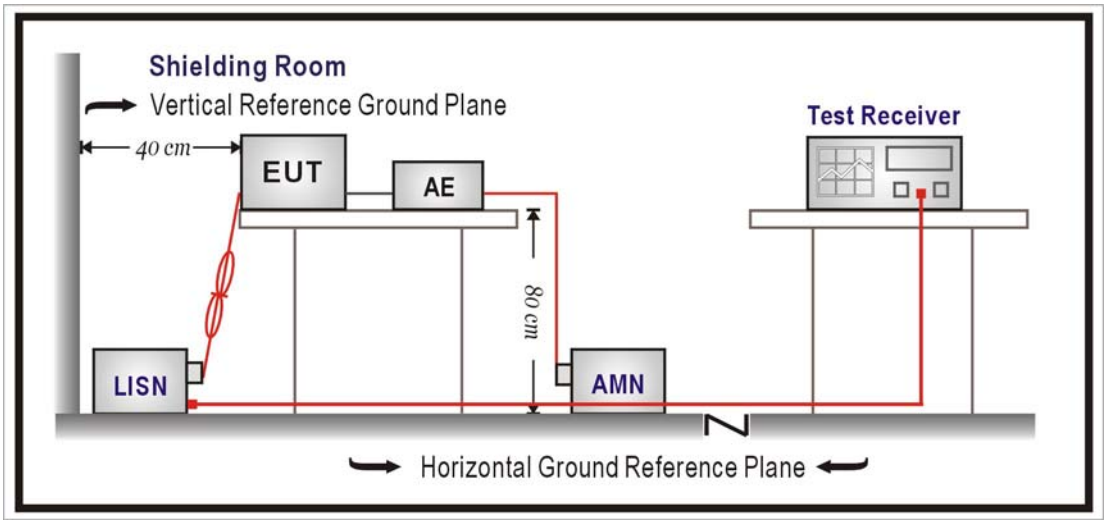
The following test equipments are used during the test:

Conducted Emission/ SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2014/08/01
LISN	R&S	ESH3-Z5	836679/022	2014/01/20
Test Receiver	R&S	ESCS 30	825442/017	2014/01/01

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.) 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 according to ANSI C63.4: 2009on conducted measurement. Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Specification

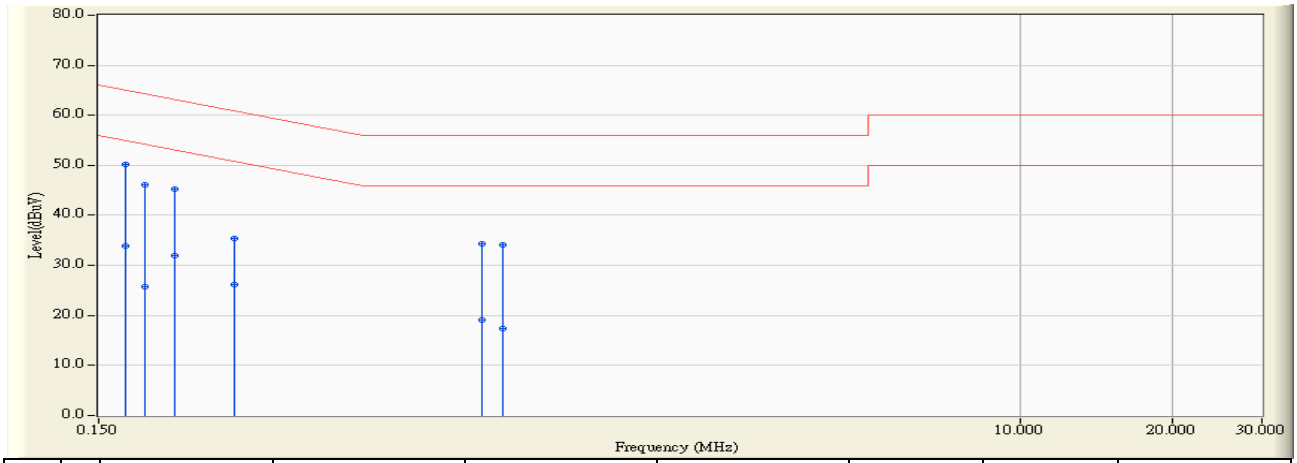
According to FCC Part 15 Subpart C Paragraph 15.207: 2012

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	**Time : 2013/10/02 - 20:28**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-3_0813 - Line1	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**

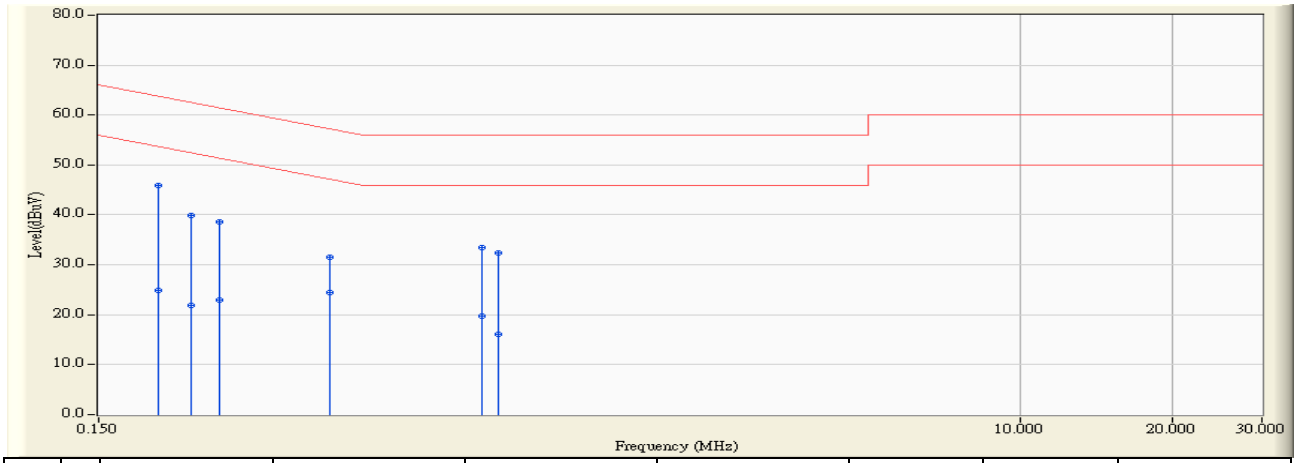


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.170	9.644	40.56	50.204	-14.779	64.983	QUASIPEAK
2		0.170	9.644	24.14	33.784	-21.199	54.983	AVERAGE
3		0.185	9.649	36.35	45.999	-18.252	64.251	QUASIPEAK
4		0.185	9.649	16.07	25.719	-28.532	54.251	AVERAGE
5		0.212	9.666	35.54	45.206	-17.901	63.107	QUASIPEAK
6		0.212	9.666	22.29	31.956	-21.151	53.107	AVERAGE
7		0.279	9.700	25.58	35.28	-25.568	60.848	QUASIPEAK
8		0.279	9.700	16.39	26.09	-24.758	50.848	AVERAGE
9		0.861	9.914	24.24	34.154	-21.846	56.000	QUASIPEAK
10		0.861	9.914	9.14	19.054	-26.946	46.000	AVERAGE
11		0.943	9.930	24.14	34.07	-21.93	56.000	QUASIPEAK
12		0.943	9.930	7.46	17.39	-28.61	46.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR3	**Time : 2013/10/02 - 20:34**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-3_0813 - Line2	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.197	9.655	36.15	45.805	-17.936	63.741	QUASIPEAK
2		0.197	9.655	15.21	24.865	-28.876	53.741	AVERAGE
3		0.228	9.676	30.13	39.806	-22.712	62.518	QUASIPEAK
4		0.228	9.676	12.08	21.756	-30.762	52.518	AVERAGE
5		0.259	9.693	28.87	38.563	-22.888	61.451	QUASIPEAK
6		0.259	9.693	13.12	22.813	-28.638	51.451	AVERAGE
7		0.431	9.782	21.56	31.342	-25.887	57.229	QUASIPEAK
8		0.431	9.782	14.52	24.302	-22.927	47.229	AVERAGE
9		0.857	9.903	23.55	33.453	-22.547	56.000	QUASIPEAK
10		0.857	9.903	9.81	19.713	-26.287	46.000	AVERAGE
11		0.927	9.916	22.46	32.376	-23.624	56.000	QUASIPEAK
12		0.927	9.916	6.01	15.926	-30.074	46.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Fundamental Power

3.1. Test Equipment

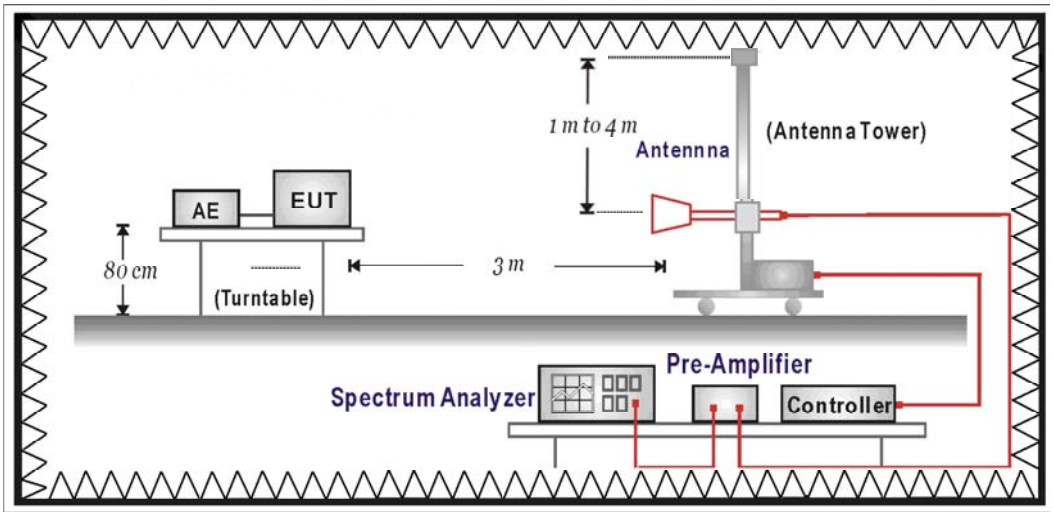
The following test equipments are used during the test:

Fundamental Power / CB1

Instrument	Manufacturer	Type No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup



3.3. Limits

➢ Fundamental and Harmonics Emission Limits

FCC Part 15 Subpart C Paragraph 15.249 Limits				
Fundamental Frequency MHz	Field Strength of Fundamental		Field Strength of Harmonics	
	mV/m	dBuV/m	uV/m	dBuV/m
902-928	50	94	500	54
2400-2483.5	50	94	500	54
5725-5875	50	94	500	54

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

3.5. Test Specification

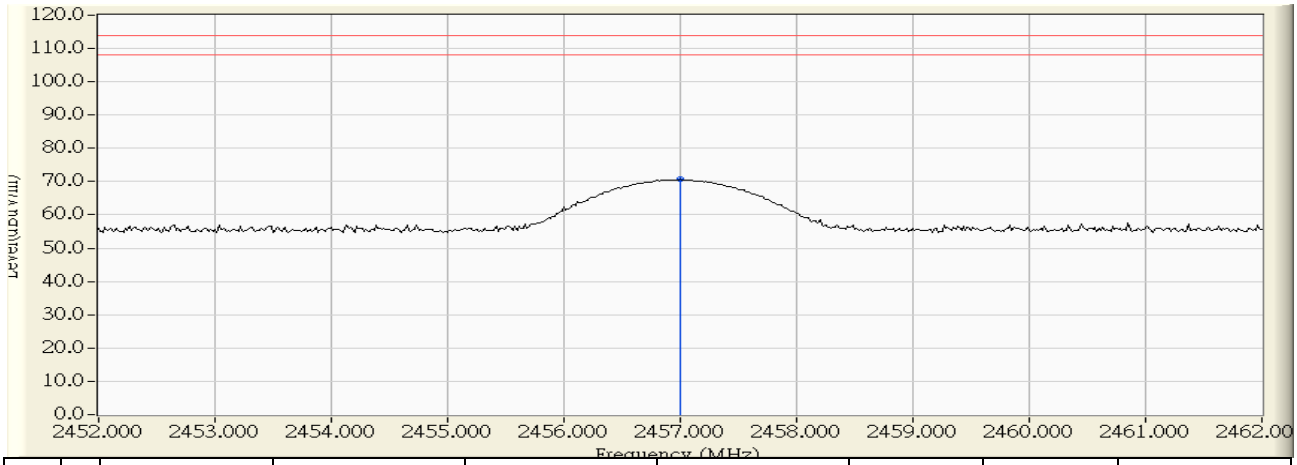
According to FCC Part 15 Subpart C Paragraph 15.249: 2012

3.6. Uncertainty

The measurement uncertainty: 1GHz～26.5GHz as ±3.65dB

3.7. Test Result

Site : CB1	**Time : 2013/10/01 - 11:49**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz_X axis**

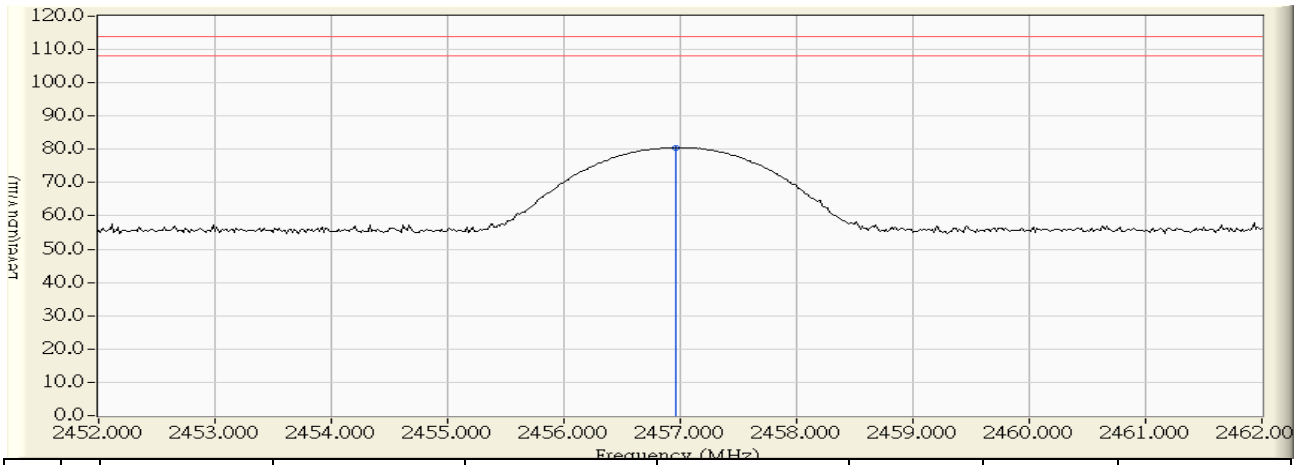


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2457.000	31.583	39.145	70.728	-43.272	114.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01 - 11:53**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz_ X axis**

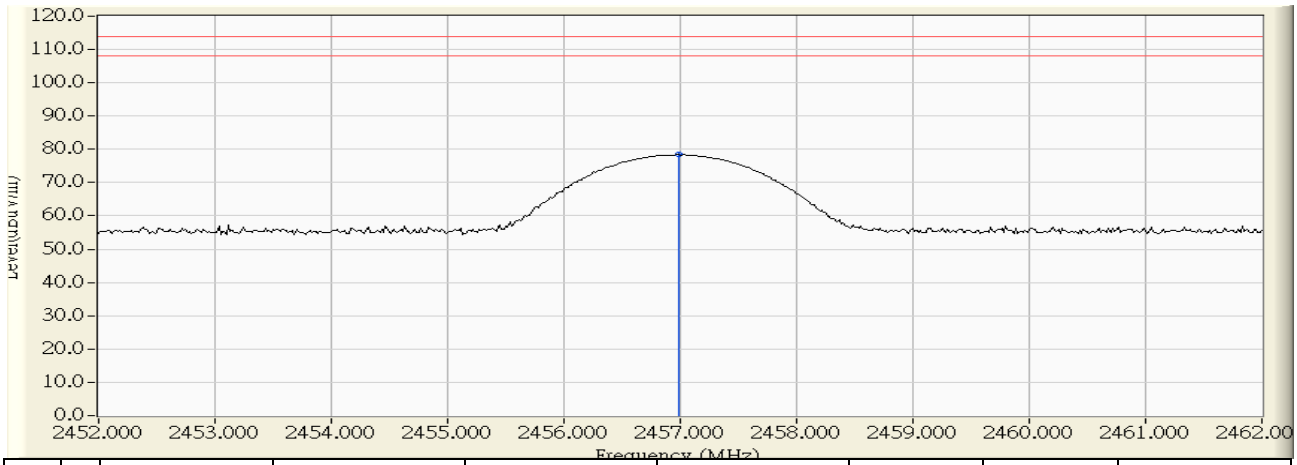


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2456.967	31.583	48.905	80.488	-33.512	114.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01 - 12:00**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz_ Y axis**

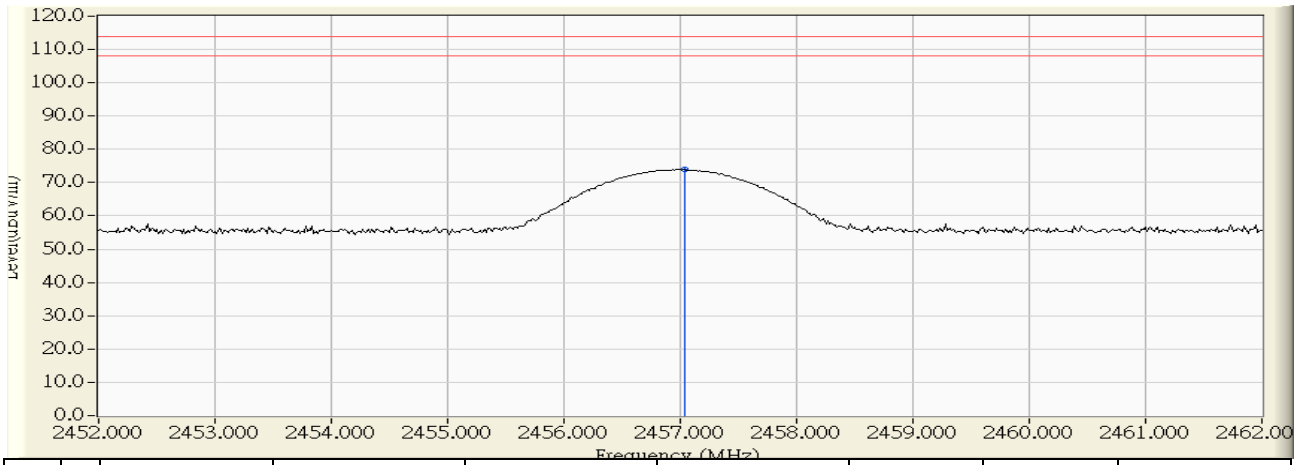


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2456.983	31.583	46.752	78.335	-35.665	114.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01- 13:05**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz_ Y axis**

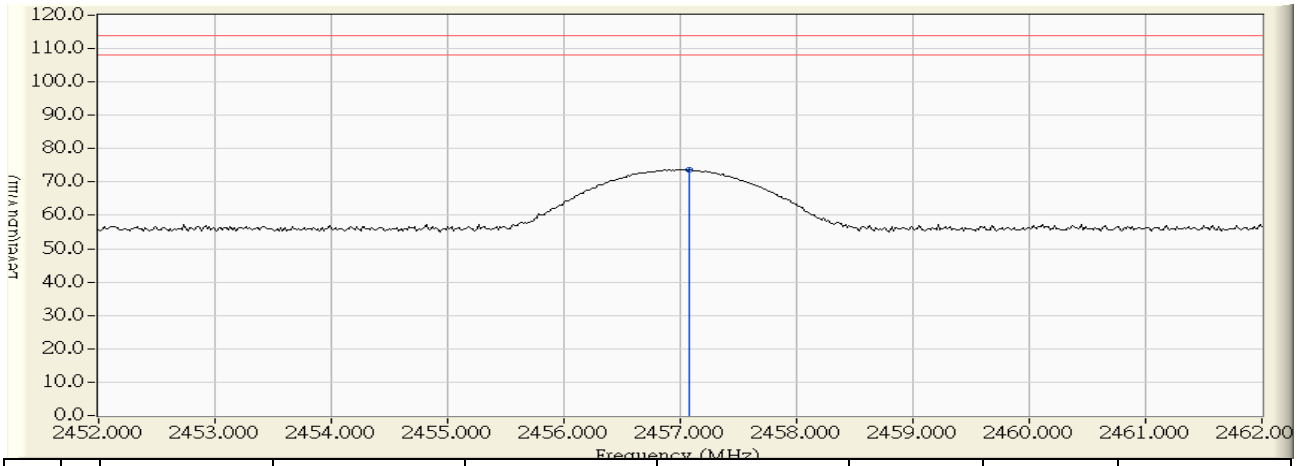


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2457.033	31.584	42.276	73.859	-40.141	114.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01- 13:12**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz_ Z axis**

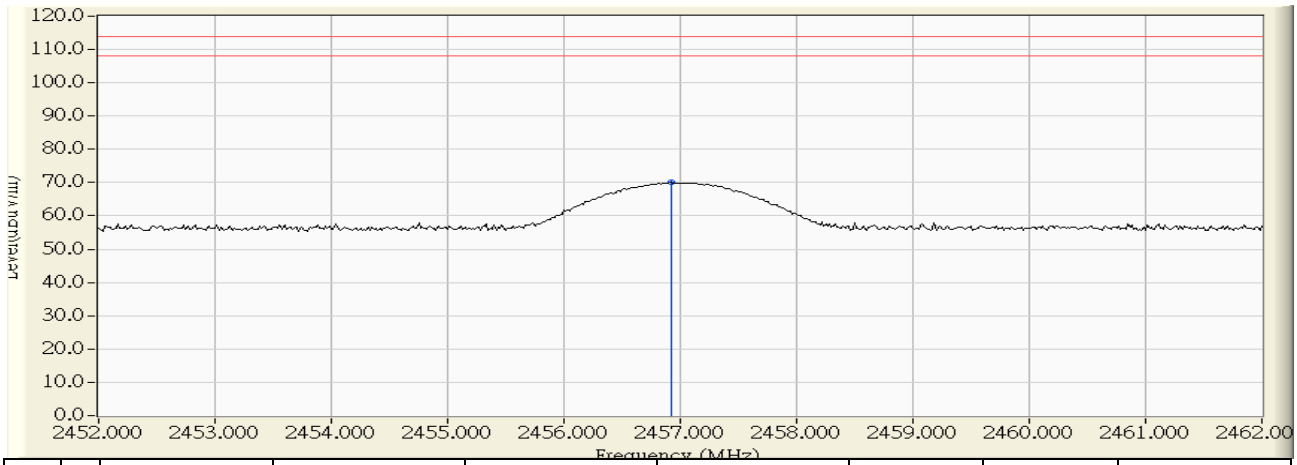


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2457.083	31.584	41.98	73.564	-40.436	114.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01- 13:19**
Limit : FCC_SpartC_15.249_F_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz_ Z axis**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2456.917	31.583	38.328	69.91	-44.09	114.000	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

4. Radiated Emission

4.1. Test Equipment

The following test equipment are used during the test:

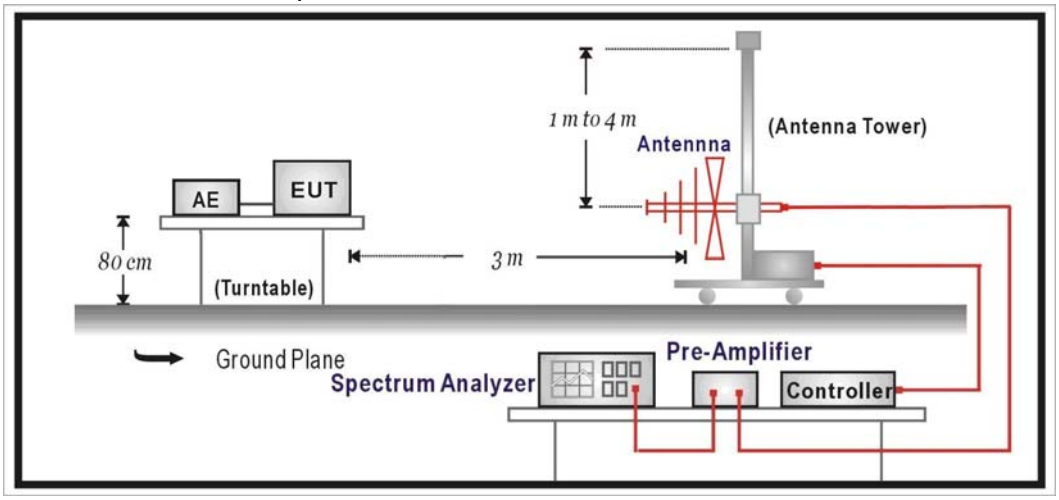
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895(CB1)	2014/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2014/06/09
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2014/02/19
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

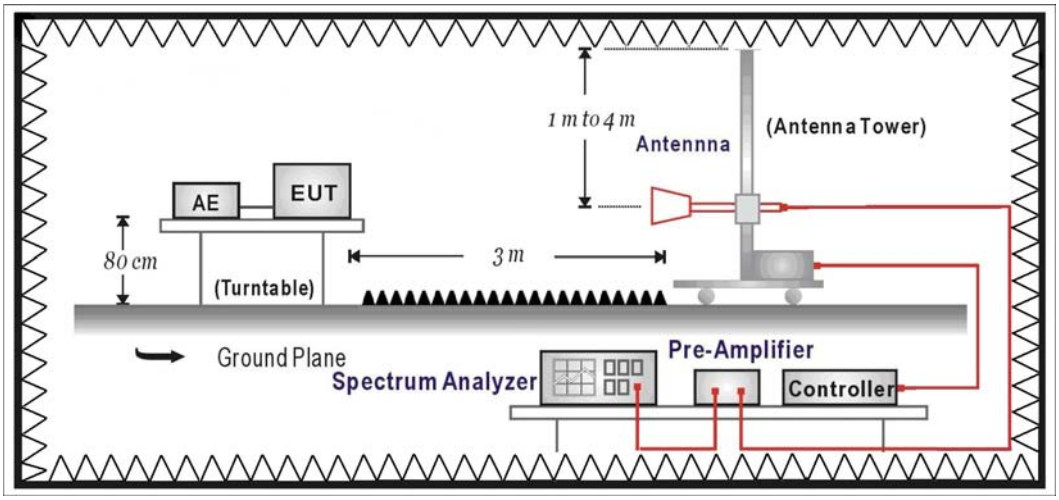
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

➢ Fundamental and Harmonics Emission Limits

FCC Part 15 Subpart C Paragraph 15.249 Limits				
Fundamental Frequency MHz	Field Strength of Fundamental		Field Strength of Harmonics	
	mV/m	dBuV/m	uV/m	dBuV/m
902-928	50	94	500	54
2400-2483.5	50	94	500	54
5725-5875	50	94	500	54

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

➢ Spurious electric field strength limits

FCC Part 15 Subpart C Paragraph 15.209 Limits			
Frequency MHz	uV/m	dBuV/m	Measurement distance (meter)
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.209 and Paragraph 15.249: 2012

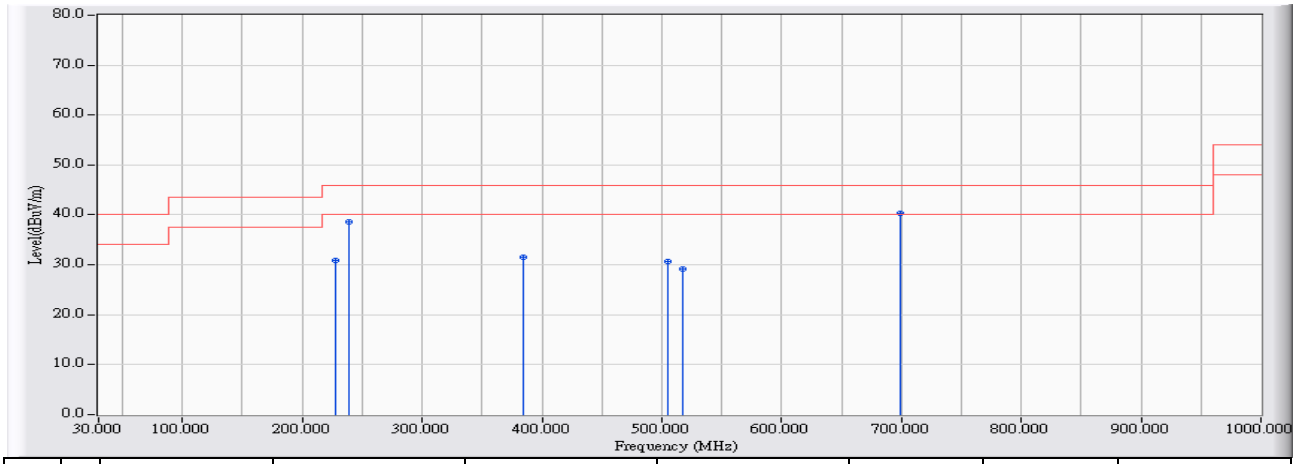
4.6. Uncertainty

The measurement uncertainty
30MHz～1GHz as ±3.43dB
1GHz～26.5GHz as ±3.65dB

4.7. Test Result

30 MHz-1 GHz Spurious:

Site : CB1	**Time : 2013/10/02 - 21:17**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**

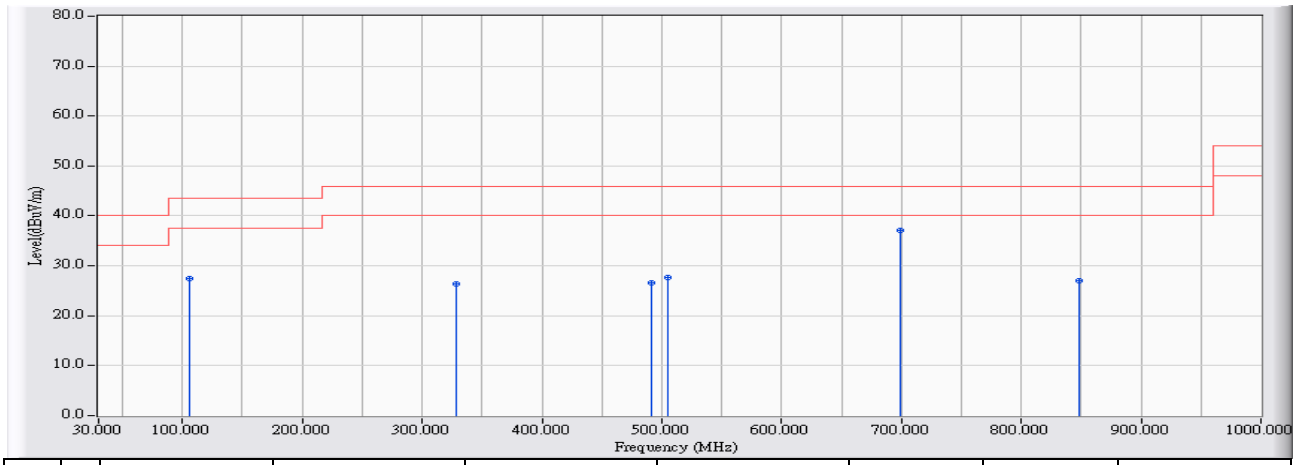


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		227.880	-22.417	53.225	30.808	-15.192	46.000	QUASIPEAK
2		239.520	-21.431	59.896	38.465	-7.535	46.000	QUASIPEAK
3		385.020	-17.791	49.144	31.353	-14.647	46.000	QUASIPEAK
4		505.300	-15.455	45.959	30.504	-15.496	46.000	QUASIPEAK
5		516.940	-15.439	44.598	29.16	-16.84	46.000	QUASIPEAK
6	*	699.300	-14.681	54.868	40.187	-5.813	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2013/10/02 - 21:21**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**



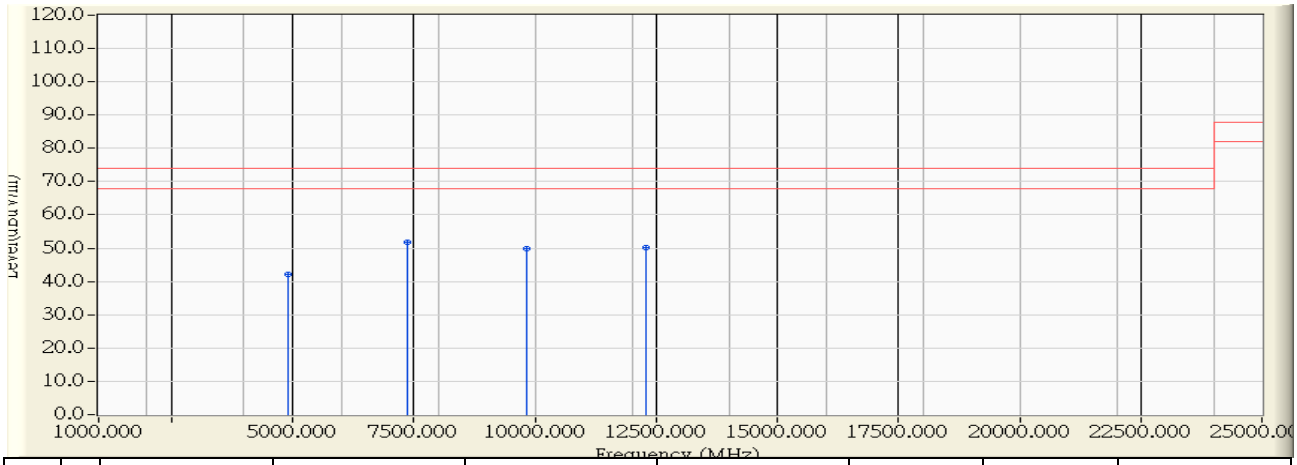
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		105.660	-22.895	50.297	27.402	-16.098	43.500	QUASIPEAK
2		328.760	-19.216	45.582	26.365	-19.635	46.000	QUASIPEAK
3		491.720	-15.625	42.223	26.599	-19.401	46.000	QUASIPEAK
4		505.300	-15.455	43.012	27.557	-18.443	46.000	QUASIPEAK
5	*	699.300	-14.681	51.795	37.114	-8.886	46.000	QUASIPEAK
6		848.680	-13.149	39.994	26.845	-19.155	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Above 1GHz Spurious：

Site : CB1	**Time : 2013/10/01 - 19:12**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**

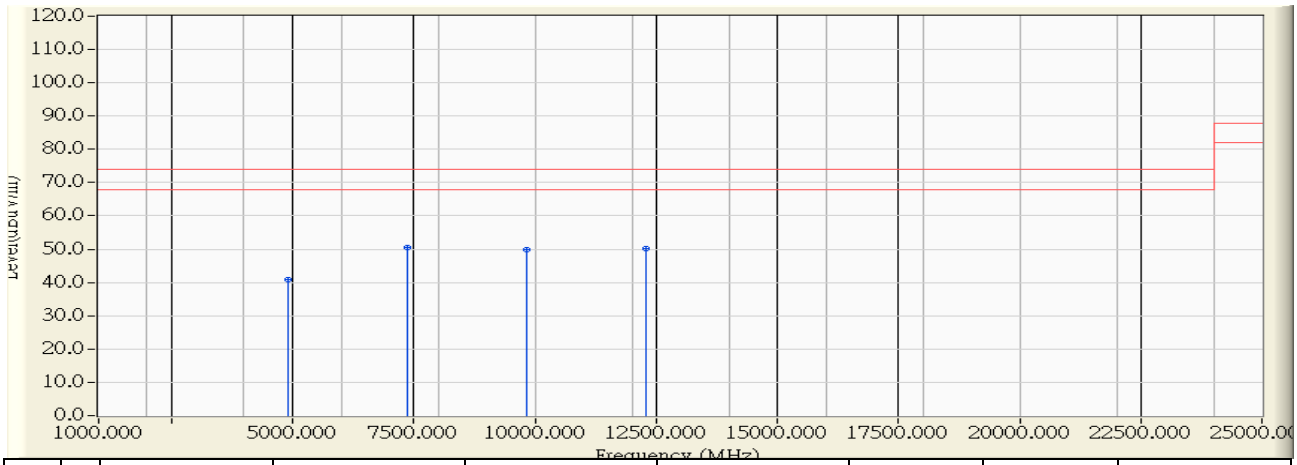


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4914.000	-0.397	42.53	42.133	-31.837	73.970	PEAK
2	*	7371.000	5.738	45.87	51.607	-22.363	73.970	PEAK
3		9827.560	10.388	39.47	49.858	-24.112	73.970	PEAK
4		12287.000	11.012	39.08	50.092	-23.878	73.970	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01 - 19:27**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4913.783	-0.397	41.11	40.712	-33.258	73.970	PEAK
2	*	7371.117	5.738	44.79	50.528	-23.442	73.970	PEAK
3		9824.280	10.368	39.26	49.627	-24.343	73.970	PEAK
4		12287.000	11.012	39.12	50.132	-23.838	73.970	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

5. Band Edge

5.1. Test Equipment

The following test equipment are used during the test:

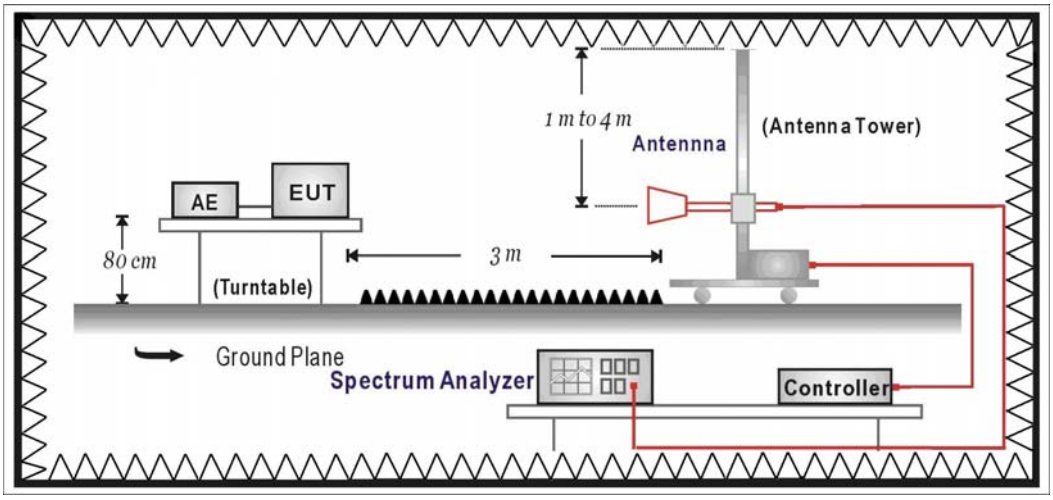
Band Edge / CB1

Instrument	Manufacturer	Type No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup

RF Radiated Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 50 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. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.249: 2012

5.6. Uncertainty

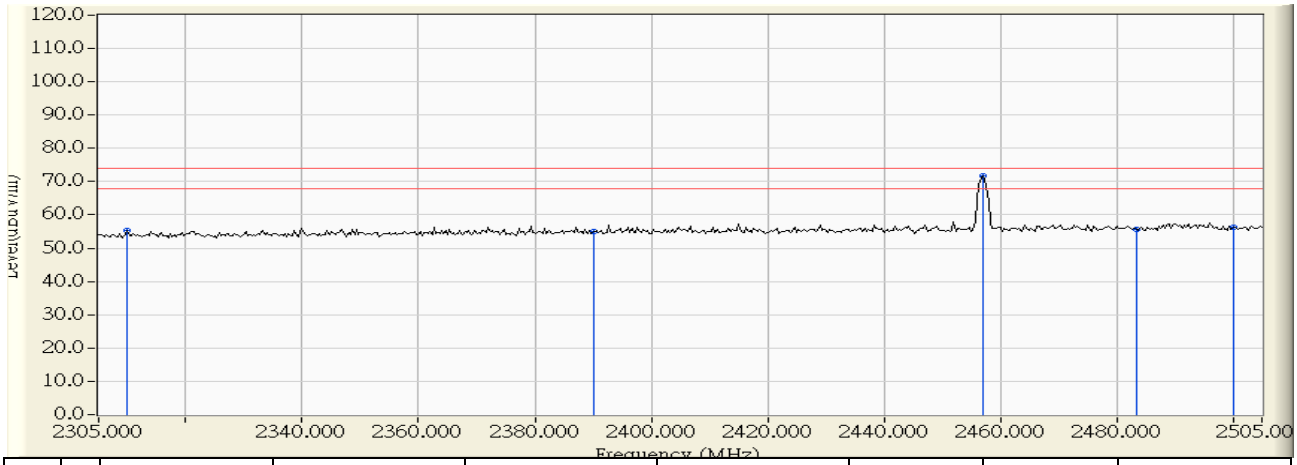
The measurement uncertainty

Conducted is defined as ± 1.27dB

Radiated is defined as ± 3.9dB

5.7. Test Result

Site : CB1	**Time : 2013/10/01 - 19:29**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**

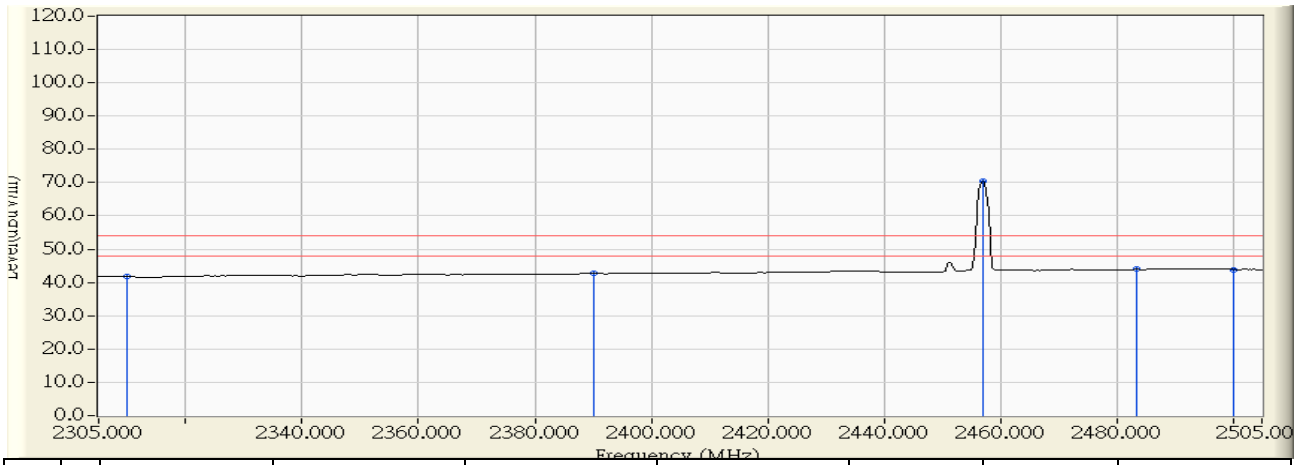


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.153	55.212	-18.758	73.970	PEAK
2		2390.000	30.888	24.127	55.015	-18.955	73.970	PEAK
3	*	2457.000	31.583	39.956	71.539	-2.431	73.970	PEAK
4		2483.500	31.858	23.713	55.571	-18.399	73.970	PEAK
5		2500.000	31.988	24.276	56.265	-17.705	73.970	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01 - 19:31**
Limit : FCC_SpartC_15.249_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**

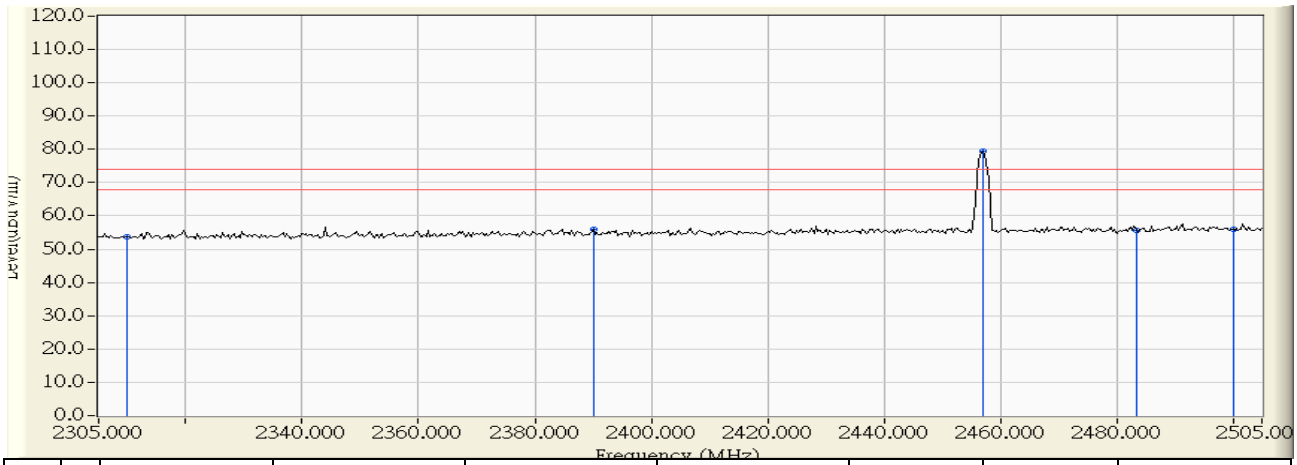


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	11.629	41.688	-12.282	53.970	AVERAGE
2		2390.000	30.888	11.759	42.647	-11.323	53.970	AVERAGE
3	*	2457.000	31.583	38.766	70.349	16.379	53.970	AVERAGE
4		2483.500	31.858	12.025	43.883	-10.087	53.970	AVERAGE
5		2500.000	31.988	11.822	43.811	-10.159	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01 - 19:36**
Limit : FCC_SpartC_15.249_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**

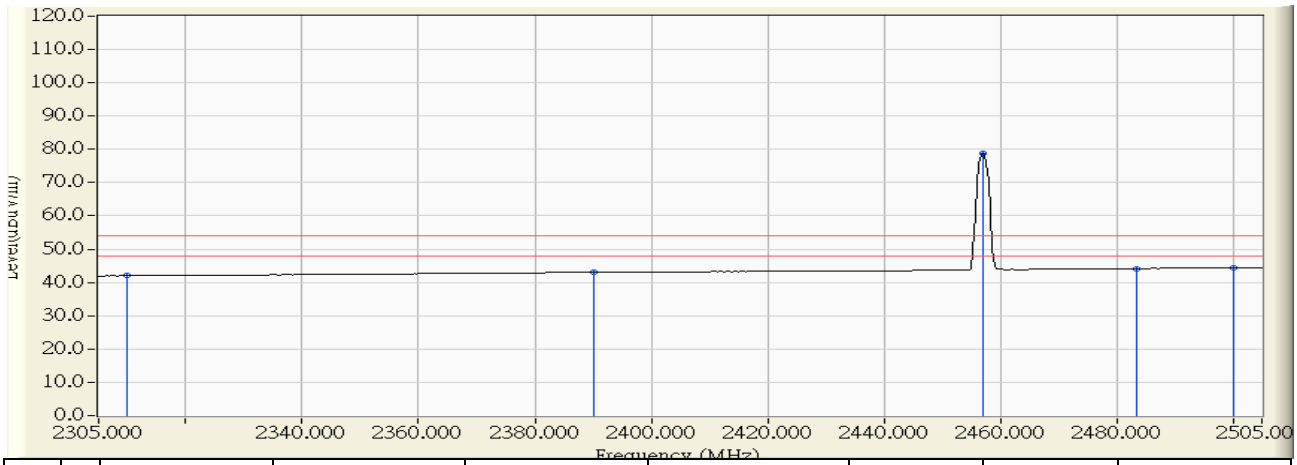


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	23.423	53.482	-20.488	73.970	PEAK
2		2390.000	30.888	25.039	55.927	-18.043	73.970	PEAK
3	*	2457.000	31.583	47.638	79.221	5.251	73.970	PEAK
4		2483.500	31.858	23.837	55.695	-18.275	73.970	PEAK
5		2500.000	31.988	23.759	55.748	-18.222	73.970	PEAK

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2013/10/01 - 19:38**
Limit : FCC_SpartC_15.249_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : DC 5V (Power by PC)**
EUT : PAPAGO! GPS Sport Watch	**Note : 2457MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	11.745	41.804	-12.166	53.970	AVERAGE
2		2390.000	30.888	11.97	42.858	-11.112	53.970	AVERAGE
3	*	2457.000	31.583	47.085	78.668	24.698	53.970	AVERAGE
4		2483.500	31.858	12.153	44.011	-9.959	53.970	AVERAGE
5		2500.000	31.988	12.122	44.111	-9.859	53.970	AVERAGE

Note:

1. All Readings below 1GHz are Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.