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Report No.: FCC12-RTE112904

Page 1 of 25

FCC REPORT

Applicant: Archos SA

Address of Applicant: 12 Rue Ampere 91430 Igny, France

Equipment Under Test (EUT)

Product Name: LUDO

Model No.: 1001

Trade Mark: Archos

FCC ID: SOVLDRC

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249:2011

Date of sample receipt: November 13, 2012

Date of Test: November 13-29, 2012

Date of report issued: November 29, 2012

Test Result: PASS *

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The protection requirements with respect to electromagnetic compatibility contained in Directive 1999/5/EC are considered.

Authorized Signature:

Kavin 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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^{*} In the configuration tested, the EUT complied with the standards specified above.



Report No.: FCC12-RTE112904 Page 2 of 25

2 Version

Version No.	Date	Description
00	November 29, 2012	Original

Prepared By:	hank yan.	Date:	November 29, 2012
	Project Engineer		
Check By:	Hams. Hu	Date:	November 29, 2012
	Reviewer		



Report No.: FCC12-RTE112904 Page 3 of 25

3 Contents

			Page
1	COV	ER PAGE	1
2	VEF	RSION	2
3	COL	NTENTS	3
J			
4	TES	ST SUMMARY	4
5	GEN	NERAL INFORMATION	5
	5.1	CLIENT INFORMATION	5
	5.2	GENERAL DESCRIPTION OF EUT	5
	5.3	TEST MODE	
	5.4	DESCRIPTION OF SUPPORT UNITS	7
	5.5	TEST FACILITY	7
	5.6	TEST LOCATION	
	5.7	OTHER INFORMATION REQUESTED BY THE CUSTOMER	7
6	TES	ST INSTRUMENTS LIST	8
7	TES	ST RESULTS AND MEASUREMENT DATA	9
	7.1	Antenna requirement:	g
	7.2	RADIATED EMISSION METHOD	10
	7.2.	1 Field Strength of The Fundamental Signal	12
	7.2.	2 Spurious emissions	
	7.2.	3 Bandedge emissions	17
	7.3	20DB OCCUPY BANDWIDTH	18
8	TES	ST SETUP PHOTO	20
9	EUT	CONSTRUCTIONAL DETAILS	21



Report No.: FCC12-RTE112904

Page 4 of 25

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.

N/A: not applicable.



Report No.: FCC12-RTE112904 Page 5 of 25

5 General Information

5.1 Client Information

Applicant:	Archos SA
Address of Applicant:	12 Rue Ampere 91430 Igny, France
Manufacturer :	Archos SA
Address of Manufacturer :	12 Rue Ampere 91430 Igny, France

5.2 General Description of EUT

Product Name:	LUDO
Model No.:	1001
Operation Frequency:	2402MHz~2480MHz
Modulation type:	GFSK
Antenna Type:	Integral
Antenna gain:	2dBi
Power supply:	DC 3.0V 2*1.5V AA SIZE battery



Report No.: FCC12-RTE112904 Page 6 of 25

Operation Frequency each of channel								
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



Report No.: FCC12-RTE112904

Page 7 of 25

5.3 Test mode

Bluetooth mode Keep the EUT in Bluetooth mode

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.

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	Х	Y	Z
Field Strength(dBuV/m)	93.16	95.58	94.35

Final Test Mode:

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

N/A

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, July 20, 2010.

• Industry Canada (IC)

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-1.

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.



Report No.: FCC12-RTE112904 Page 8 of 25

6 Test Instruments list

Radi	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. 30 2011	Mar. 29 2013			
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 06, 2012	Dec 05, 2013			
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 03 2012	Jul. 02 2013			
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 25 2012	Feb. 24 2013			
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 29 2012	June 28 2013			
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 30 2011	Mar. 29 2013			
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A			
9	Coaxial Cable	GTS	N/A	GTS213	Mar. 31 2012	Mar. 30 2013			
10	Coaxial Cable	GTS	N/A	GTS211	Mar. 31 2012	Mar. 30 2013			
11	Coaxial cable	GTS	N/A	GTS210	Mar. 31 2012	Mar. 30 2013			
12	Coaxial Cable	GTS	N/A	GTS212	Mar. 31 2012	Mar. 30 2013			
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 03 2012	Jul. 02 2013			
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 03 2012	Jul. 02 2013			
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 29 2012	June 28 2013			
16	Band filter	Amindeon	82346	GTS219	Mar. 31 2012	Mar. 30 2013			

Con	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. 08 2011	Sep. 07 2013				
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Jul. 03 2012	Jul. 02 2013				
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS224	Jul. 03 2012	Jul. 02 2013				
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	Jul. 03 2012	Jul. 02 2013				
5	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 03 2012	Jul. 02 2013				
6	Coaxial Cable	GTS	N/A	GTS227	Jul. 03 2012	Jul. 02 2013				
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A				



Report No.: FCC12-RTE112904 Page 9 of 25

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 2dBi



Report No.: FCC12-RTE112904

Page 10 of 25

7.2 Radiated Emission Method

1 Radiated Elinosion Method						
Test Requirement:	FCC Part15 C Section 15.209					
Test Method:	ANSI C63.4:2003					
Test Frequency Range:	30MHz to 25GHz					
Test site:	Measurement D	Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark	
	30MHz- 1GHz	Quasi-peal	120KHz	300KHz	Quasi-peak Value	
	Above 1GHz	Peak	1MHz	3MHz	Peak Value	
		AV	1MHz	10Hz	Average Value	
					, the RBW and VBW andwidth is 1.226MHz	
Limit:	Freque	ency	Limit (dBuV		Remark	
(Field strength of the	2400MHz-24	483.5MHz	94.0		Average Value	
fundamental signal)			114.0		Peak Value	
Limit:	Freque		Limit (dBuV		Remark	
(Spurious Emissions)	30MHz-8 88MHz-2		40.0 43.5		Quasi-peak Value Quasi-peak Value	
	216MHz-9		46.0		Quasi-peak Value	
	960MHz-		54.0		Quasi-peak Value	
	Above 1	1CU-7	54.0	0	Average Value	
	Above	IGHZ	74.0	0	Peak Value	
Limit: (band edge)	harmonics, sha	II be attenuate 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:	EUT	4m 4m 0.8m 1m		Anten Sea Anten RF Test Receiver		
	Above 1GHz					



Report No.: FCC12-RTE112904 Page 11 of 25

	Antenna Tower Horn Antenna Spectrum Analyzer Turn Table Amplifier
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.
	 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.
	7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement data:



Report No.: FCC12-RTE112904

Page 12 of 25

7.2.1 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	86.98	27.58	5.39	30.18	89.77	114.00	-24.23	Horizontal
2402.00	92.79	27.58	5.39	30.18	95.58	114.00	-18.42	Vertical
2440.00	85.52	27.55	5.43	30.06	88.44	114.00	-25.56	Horizontal
2440.00	91.87	27.55	5.43	30.06	94.79	114.00	-19.21	Vertical
2480.00	84.43	27.52	5.47	29.93	87.49	114.00	-26.51	Horizontal
2480.00	90.30	27.52	5.47	29.93	93.36	114.00	-20.64	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
2402.00	77.72	27.58	5.39	30.18	80.51	94.00	-13.49	Horizontal
2402.00	83.40	27.58	5.39	30.18	86.19	94.00	-7.81	Vertical
2440.00	75.88	27.55	5.43	30.06	78.80	94.00	-15.20	Horizontal
2440.00	82.56	27.55	5.43	30.06	85.48	94.00	-8.52	Vertical
2480.00	74.46	27.52	5.47	29.93	77.52	94.00	-16.48	Horizontal
2480.00	80.51	27.52	5.47	29.93	83.57	94.00	-10.43	Vertical



Report No.: FCC12-RTE112904

Page 13 of 25

7.2.2 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
47.66	40.01	16.50	0.75	31.98	25.28	40.00	-14.72	Vertical
97.46	39.65	16.08	1.17	31.75	25.15	43.50	-18.35	Vertical
216.02	41.14	14.12	1.93	32.15	25.04	46.00	-20.96	Vertical
321.06	40.51	16.32	2.47	32.11	27.19	46.00	-18.81	Vertical
432.55	45.09	17.54	3.01	31.78	33.86	46.00	-12.14	Vertical
887.61	38.75	23.96	4.80	31.20	36.31	46.00	-9.69	Vertical
47.66	38.45	16.50	0.75	31.98	23.72	40.00	-16.28	Horizontal
60.49	38.82	15.65	0.86	31.94	23.39	40.00	-16.61	Horizontal
99.88	38.78	16.11	1.19	31.76	24.32	43.50	-19.18	Horizontal
321.06	39.10	16.32	2.47	32.11	25.78	46.00	-20.22	Horizontal
588.91	38.44	20.29	3.68	31.09	31.32	46.00	-14.68	Horizontal
887.61	39.58	23.96	4.80	31.20	37.14	46.00	-8.86	Horizontal



Report No.: FCC12-RTE112904

Page 14 of 25

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	36.07	31.78	8.60	24.17	52.28	74.00	-21.72	Vertical
7206.00	35.67	36.15	11.65	26.39	57.08	74.00	-16.92	Vertical
9608.00	34.14	38.01	14.14	25.45	60.84	74.00	-13.16	Vertical
12010.00	*					74.00		Vertical
14412.00	*					74.00		Vertical
4804.00	31.82	31.78	8.60	24.17	48.03	74.00	-25.97	Horizontal
7206.00	33.41	36.15	11.65	26.39	54.82	74.00	-19.18	Horizontal
9608.00	30.13	38.01	14.14	25.45	56.83	74.00	-17.17	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	23.36	31.78	8.60	24.17	39.57	54.00	-14.43	Vertical
7206.00	22.78	36.15	11.65	26.39	44.19	54.00	-9.81	Vertical
9608.00	18.52	38.01	14.14	25.45	45.22	54.00	-8.78	Vertical
12010.00	*					54.00		Vertical
14412.00	*					54.00		Vertical
4804.00	19.00	31.78	8.60	24.17	35.21	54.00	-18.79	Horizontal
7206.00	19.32	36.15	11.65	26.39	40.73	54.00	-13.27	Horizontal
9608.00	16.53	38.01	14.14	25.45	43.23	54.00	-10.77	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.



Report No.: FCC12-RTE112904

Page 15 of 25

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	36.52	31.85	8.66	24.10	52.93	74.00	-21.07	Vertical
7320.00	36.85	36.35	11.70	26.68	58.22	74.00	-15.78	Vertical
9760.00	33.56	38.30	14.21	25.32	60.75	74.00	-13.25	Vertical
12200.00	*					74.00		Vertical
14640.00	*					74.00		Vertical
4880.00	32.46	31.85	8.66	24.10	48.87	74.00	-25.13	Horizontal
7320.00	32.51	36.35	11.70	26.68	53.88	74.00	-20.12	Horizontal
9760.00	29.15	38.30	14.21	25.32	56.34	74.00	-17.66	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	23.81	31.85	8.66	24.10	40.22	54.00	-13.78	Vertical
7320.00	22.85	36.35	11.70	26.68	44.22	54.00	-9.78	Vertical
9760.00	18.02	38.30	14.21	25.32	45.21	54.00	-8.79	Vertical
12200.00	*					54.00		Vertical
14640.00	*					54.00		Vertical
4880.00	19.64	31.85	8.66	24.10	36.05	54.00	-17.95	Horizontal
7320.00	19.39	36.35	11.70	26.68	40.76	54.00	-13.24	Horizontal
9760.00	16.02	38.30	14.21	25.32	43.21	54.00	-10.79	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.



Report No.: FCC12-RTE112904

Page 16 of 25

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	35.33	31.93	8.73	24.03	51.96	74.00	-22.04	Vertical
7440.00	35.87	36.59	11.79	27.03	57.22	74.00	-16.78	Vertical
9920.00	31.09	38.81	14.38	25.26	59.02	74.00	-14.98	Vertical
12400.00	*					74.00		Vertical
14880.00	*					74.00		Vertical
4960.00	32.06	31.93	8.73	24.03	48.69	74.00	-25.31	Horizontal
7440.00	32.72	36.59	11.79	27.03	54.07	74.00	-19.93	Horizontal
9920.00	27.69	38.81	14.38	25.26	55.62	74.00	-18.38	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	22.62	31.93	8.73	24.03	39.25	54.00	-14.75	Vertical
7440.00	23.40	36.59	11.79	27.03	44.75	54.00	-9.25	Vertical
9920.00	18.53	38.81	14.38	25.26	46.46	54.00	-7.54	Vertical
12400.00	*					54.00		Vertical
14880.00	*					54.00		Vertical
4960.00	19.24	31.93	8.73	24.03	35.87	54.00	-18.13	Horizontal
7440.00	20.00	36.59	11.79	27.03	41.35	54.00	-12.65	Horizontal
9920.00	17.09	38.81	14.38	25.26	45.02	54.00	-8.98	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.



Lowest channel

Report No.: FCC12-RTE112904

Page 17 of 25

7.2.3 Bandedge emissions

All of the restrict band were tested, only the worse data was exhibited.

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	54.08	27.38	3.91	34.83	50.54	74.00	-23.46	Horizontal
2400.00	56.94	27.38	3.93	34.83	53.42	74.00	-20.58	Horizontal
2390.00	56.02	27.38	3.91	34.83	52.48	74.00	-21.52	Vertical
2400.00	58.19	27.38	3.93	34.83	54.67	74.00	-19.33	Vertical
Average va	lue:						•	
	Read	Antenna	Cable	Preamn			Over	

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	40.95	27.38	3.91	34.83	37.41	54.00	-16.59	Horizontal
2400.00	43.29	27.38	3.93	34.83	39.77	54.00	-14.23	Horizontal
2390.00	42.83	27.38	3.91	34.83	39.29	54.00	-14.71	Vertical
2400.00	45.34	27.38	3.93	34.83	41.82	54.00	-12.18	Vertical

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
2483.50	51.49	27.32	3.99	34.86	47.94	74.00	-26.06	Horizontal
2500.00	48.85	27.35	4.00	34.87	45.33	74.00	-28.67	Horizontal
2483.50	52.25	27.32	3.99	34.86	48.70	74.00	-25.30	Vertical
2500.00	51.06	27.35	4.00	34.87	47.54	74.00	-26.46	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
2483.50	39.29	27.32	3.99	34.86	35.74	54.00	-18.26	Horizontal
2500.00	35.78	27.35	4.00	34.87	32.26	54.00	-21.74	Horizontal
2483.50	41.66	27.32	3.99	34.86	38.11	54.00	-15.89	Vertical
2500.00	37.17	27.35	4.00	34.87	33.65	54.00	-20.35	Vertical

Remark:

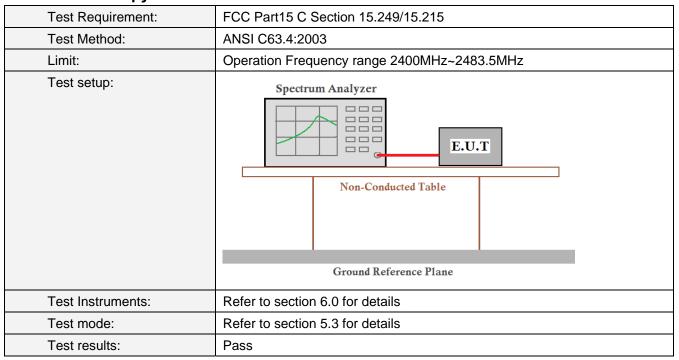
^{1.} Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor



Report No.: FCC12-RTE112904

Page 18 of 25

7.3 20dB Occupy Bandwidth



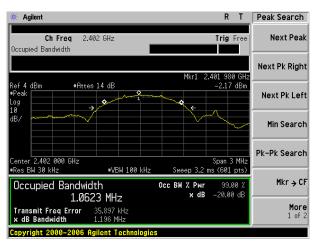
Measurement Data

Test channel	20dB bandwidth(MHz)	Result
Lowest	1.196	Pass
Middle	1.226	Pass
Highest	1.222	Pass

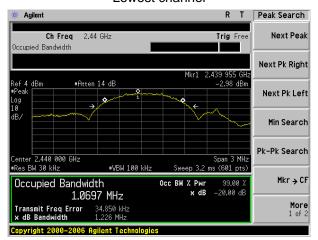
Test plot as follows:



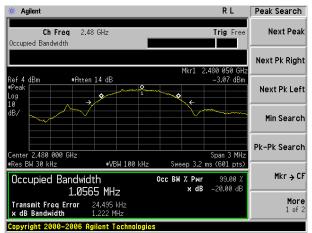
Report No.: FCC12-RTE112904 Page 19 of 25



Lowest channel



Middle channel



Highest channel