



## **TEST REPORT**

**According to FCC, CFR 47 Part 15  
And Industry Canada  
According to RSS 210  
and ICES03**

**Wireless digital photo frame KORO**

**N°292102-CC-1-c**

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FCC CERTIFICATION TEST REPORT  
EQUIPMENT FCC ID : RKXKORO  
EQUIPMENT IC : 5119A-KORO  
The 26 pages of this report are not sharable

Identification : 292102-CC-1-c  
FCC registration # 90469  
IC registration IC4452

This report concerns :      Original grant       Class II change

Equipment tested : **Wireless digital photo frame KORO**

Equipment FCC ID : **RKXKORO**

Designed by :  
PARROT  
174 Quai de Jemmapes  
75010 PARIS

Manufactured by :  
PARROT  
174 Quai de Jemmapes  
75010 PARIS

Deferred grant requested per 47 CFR 0.457 (d)(1)(ii)      YES       NO

if yes, defer until :

Company Named agrees to notify the Commission by :

of the intended date of announcement of the product so that the grant can be issued on the date

Transition rules requested per 15.37?      YES       NO   
If no, assumed Part 15, Subpart B for intentional or  
unintentional radiator  
The new 47 CFR [10-1-96 edition] provision



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**Company number:** RKX  
**Product name:** KORO  
**Model number:** DF 7220

**Manufacturer:**

PARROT  
174 Quai de Jemmapes  
75010 PARIS

**Tested to radio standards specification (RSS) No: RSS210 Issue 7**

**Open Area test site Industry Canada number: IC4452**

**Frequency range:** 2.402 GHz to 2.480 GHz

**R.F. Power in Watts:** P = 17.8 mW

**Antenna Gain:** 0 dBi

**Field strength:** max level measured at 3 m is 107.73 dB $\mu$ V/m

**Occupied bandwidth:** 1.36MHz.

**Type of modulation:** FHSS

**Emission designator:** 1M36G7D

**Transmitter and Receiver spurious (worst case):** 30.311 MHz, 32.9 dB $\mu$ V/m QP at 3m,  
7.1dB margin

**ATTESTATION**

I attest that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned departmental standards, and that the radio equipment identified in this application has been subject to all the applicable test conditions specified in the departmental standards and all of the requirements of the standards have been met.

Signature:

Date: November 8, 2007



ROY Olivier, technical manager.



## Summary

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## 1 Reference and record of revisions of the test report:

Test report number :	Revision :	Number of pages	Modification reasons :
292102-CC-1-a	a	21	Creation, November 07, 2007
292102-CC-1-b	b	26	Addition of conducted emission and radiated emission in USB mode
292102-CC-1-c	c	26	Addition of measurement at band edge.
<b>Redactor : JL JAMET &amp; O.ROY</b>		<b>Date of writing : 25 February 2007</b>	
<b>Technical control: O. ROY</b> 		<b>Quality Control: F. NOURRY</b> 	

## 2 Interpretation and remarks:

### 2.1 RESULTS:

This equipment complies with the rules of the FCC section 15.247 and related sections.

This equipment complies with the rules of the IC RSS-210 Appendix 8 and related sections.

This equipment complies with the rules of the ICES-03 class B and related sections concerning its ITE(Information Technology Equipment) functions (PC communications...). Conducted emissions have not been performed in this mode.

This equipment complies with the rules of the FCC section 15.109 and related sections concerning its ITE (Information Technology Equipment) functions (PC communications...).

	<p>FCC CERTIFICATION TEST REPORT <b>EQUIPMENT FCC ID : RKXKORO</b> <b>EQUIPMENT IC : 5119A-KORO</b> The 26 pages of this report are not sharable</p>	<p style="text-align: right;">6</p> <p>Identification : 292102-CC-1-c <b>FCC registration # 90469</b> <b>IC registration IC4452</b></p>
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### 3 GENERAL INFORMATION:

#### 3.1 APPLICANT:

PARROT  
174 Quai de Jemmapes  
75010 PARIS

#### 3.2 MANUFACTURER:

PARROT  
174 Quai de Jemmapes  
75010 PARIS

#### 3.3 TEST DATE:

October 10-15, 2007

#### 3.4 TEST SITE:

GYL Technologies  
Parc d'activités de Lanserre  
49610 Juigné sur Loire – France  
FCC registration Number: 90469  
IC registration IC 4452

#### 4 INTRODUCTION:

The following test report for alarm system (2.4 GHz radio link) is written in accordance with Part 15 of the Federal Communications Commissions and RSS-210 and ICES-003 of the Industry Canada. The Equipment under Test (EUT) was a Wireless digital photo frame. The test results reported in this document relate only to the item that was tested.

All measurements contained in this Application were conducted in accordance with ANSI C63.4 Methods of Measurement of Radio Noise Emissions of 2003. The instrumentation utilized for the measurements conforms to the ANSI C63.4 standard for EMI and Field Strength Instrumentation. Some accessories are used to increase sensitivity and prevent overloading of the measuring instrument. These are explained in this report. Calibration checks are performed regularly on the instruments, and all accessories including the high pass filter, preamplifier and cables.

All radiated and conducted emissions measurements were performed manually at GYL TECHNOLOGIES. The radiated emissions measurements required by the rules were performed on the three to ten meters, open field, test site maintained by GYL Technologies Parc d'activités de Lanserre, 49610 Juigné sur Loire , France. Complete description and site attenuation measurement data have been placed on file with the Federal Communications Commission.

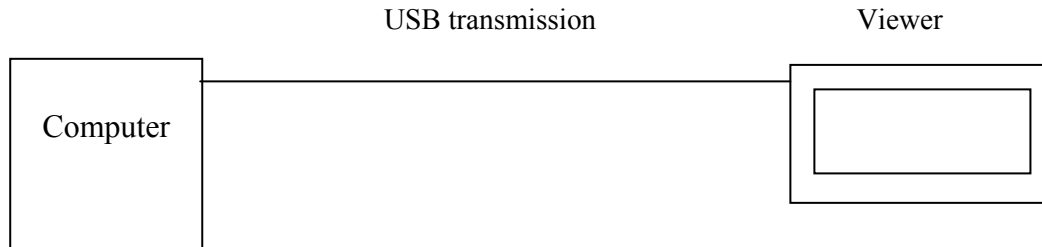
The power line conducted emission measurements were performed in a shielded enclosure also located at the Parc d'activités de Lanserre, 49610 Juigné sur Loire, France facility

#### 5 MEASUREMENT EQUIPMENT LIST :

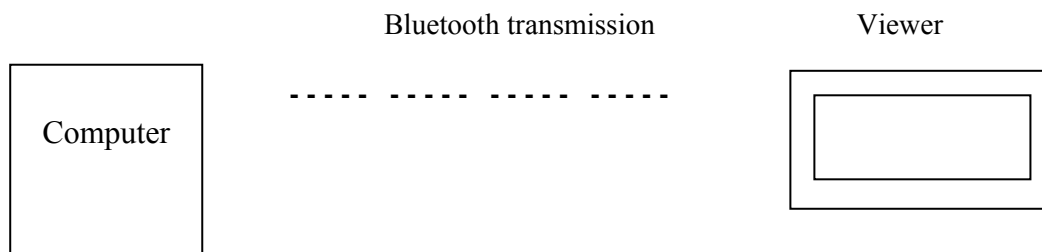
PART TYPE	MANUFACTURER	MODEL	GYL TECHNOLOGIES NUMBER	CALIBRATION DATE
<b>RECEIVERS</b>				
Receiver	Rohde & Schwarz	ESI 7	M02020	May-07
Spectrum analyzer	Rohde & Schwarz	FSEM 30	M02021	May-07
<b>ARTIFICIAL MAINS NETWORKS</b>				
LISN (50µH / 5/50Ω)	Rohde & Schwarz	ESH3-Z5	M02027	Janv-07
<b>ANTENNAS</b>				
Bilog (30-2000MHz)	CHASE	CBL-6112	M02031	June-07
Bilog (30-2000MHz)	CHASE	CBL-6112	M02032	June-07
Horn antenna	EMCO	3115	M02045	March-07

**CONFIGURATION OF TESTED SYSTEM:**

USB mode



Bluetooth mode



**6 EXERCISING TEST CONDITIONS:**

USB mode

The PC converts jpg photo then the data are sent through a USB link to the viewer picture frame. The USB menu has to be displayed on the screen of the EUT.

Bluetooth mode

The PC converts jpg photo then the data are sent through a Bluetooth dongle to the viewer picture frame. Bluetooth logo has to be displayed on the screen.

Measurements are done in hopping mode in all channels with modulation (a permanent emission of numeric stream).

For measurements that need to be done in one channel, the channel used was activated with the transmission of a 0 (to have the lower part of the spectrum) or a 1 (to have the higher part of the spectrum).

The equipment uses a FHSS modulation.





## 7 CONFORMANCE STATEMENT:

### 7.1 STANDARDS REFERENCED FOR THIS REPORT:

<b>PART 2: 2004</b>	Frequency allocations and Radio Treaty Matters General Rules and Regulations
<b>PART 15: 2006</b>	Radio frequency devices
<b>ANSI C63.4-2003</b>	Standard format measurements/technical report personal computer and peripherals
<b>ICES-003 Issue 4 : 2004</b>	Digital apparatus
<b>RSS210 Issue 7 : 2007</b>	Low Power Licence-Exempt Radiocommunication Device
<b>RSS-GEN Issue 2 : 2007</b>	General Requirements and Information for the Certification of Radiocommunication Equipment

### 7.2 JUSTIFICATION:

As mentioned in paragraph 5 of this report, the equipment is a Wireless digital photo frame. It can be installed in residential commercial or light industry areas the following sub clause of the standard mentioned above are:

- Part 15.107 and 15.109 for respectively conducted and radiated emission for unintentional radiator (USB link).
- Part 15.207 and 15.209 for respectively conducted and radiated emission for intentional radiator.
- Part 15.247 for intentional radiator in ISM band 2400 to 2483.5 MHz.
- RSS-210 Issue 7 Appendix 8 for intentional radiator in ISM band 2400 to 2483.5 MHz.
- ICES-003 for conducted and radiated emission for unintentional radiator (USB link).



## 8 TEST ACCORDING TO CFR 47 Part 15 RSS210 and ICES-003

Tests performed by JL JAMET & Olivier ROY at GYL Technologies laboratories from 10 to 15 October, 2007.

### 8.1 REFERENCE DOCUMENTATION :

FCC part 15, §15.107, §15.207, §15.109, §15.209 and §15.247 of 2006.  
 ICES-003 ed4 class B and RSS-210 A8.

### 8.2 POWER LINE CONDUCTED EMISSIONS MEASUREMENTS:

The power line conducted emission measurements were performed in a semi anechoic chamber manufactured by SIDT. The EUT was assembled on a non conductive forty centimeter wooden table. Power was fed to the EUT through a 50 ohm / 50 micro-Henry Line Impedance Stabilization Network (EUT LISN). The EUT LISN was fed power through an A.C. filter box on the outside of the shielded enclosure. The filter box and EUT LISN housing are bonded to the ground plane of the shielded enclosure. The spectrum analyzer was connected to the A.C. line through an isolation transformer. The 50-ohm output of the EUT LISN was connected to the spectrum analyzer input through a Rohde and Schwartz 150 kHz high-pass filter. The filter is used to prevent overload of the spectrum analyzer from noise below 150 kHz. Conducted emission levels were measured on each current-carrying line with the receiver operating in the CISPR quasi-peak mode (or average mode if applicable).

### 8.3 RESULTS:

The conducted emissions initial measurement consists of a prescan (tester in receiver mode), in order to determine the maximum quasi peak and average values.

- If the conducted emissions have limits showing a margin lower than 15dB, data collection measurement is performed on the six (6) highest frequencies to determine the compliance of the EUT.
- If the conducted emissions have limits showing a margin greater than 15dB, data collection measurement is not performed and the curves are given as evidence of compliance.

The following tables lists worst-case conducted emission data. Specifically: emission frequency, measurement level (including cable loss and transducer factors) in quasi-peak and average mode and margin.

The conducted test was performed with the EUT exercise program loaded, and the emissions were scanned between 150 kHz to 30 MHz on the NEUTRAL SIDE and LIVE SIDE, herein referred to as Neutral, and Live respectively.

<b>ESI 7 EMI TEST RECEIVER IN RECEIVER MODE</b>	
Peak measurement time	5 ms
step size	4kHz
Preamplifier	OFF
Preselector	ON
Resolution, Band With	9 kHz
Final Quasi Peak measurement time	1 s minimum
Final average measurement time	1 sec minimum

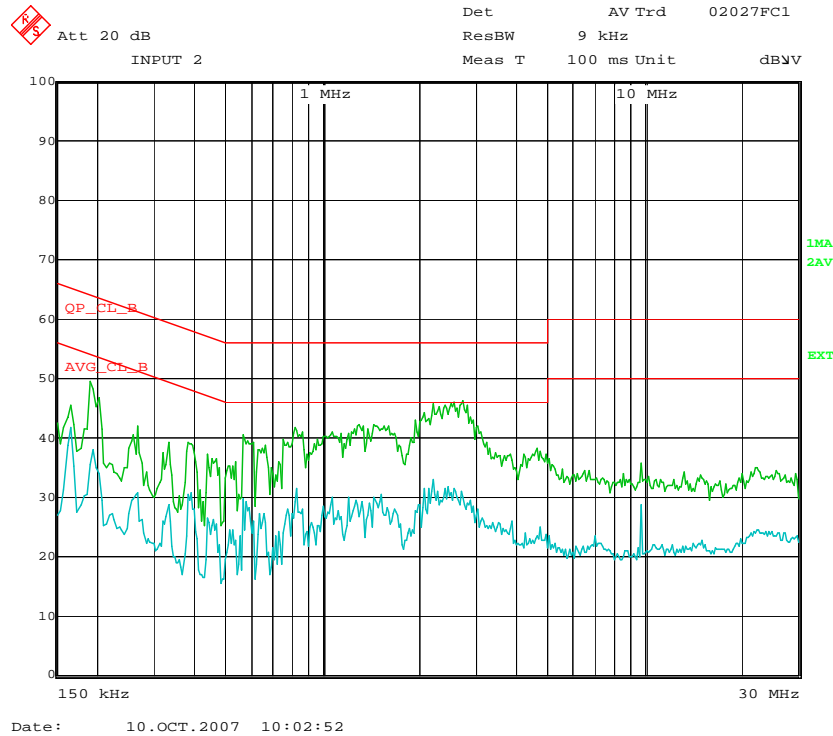


**8.3.1 Neutral:**

Frequency (MHz)	Quasi-peak (dBμV)	QP margin (dB)
2.206	40.3	-15.7
2.218	40.3	-15.7
2.506	41.2	-14.8
2.518	41.4	-14.6
2.570	41.2	-14.8
2.822	40.4	-15.6

Frequency (MHz)	Average (dBμV)	Average margin (dB)
0.166	41.0	-14.2
0.826	31.2	-14.8
2.142	27.3	-18.7
2.218	27.3	-18.7
2.410	27.3	-18.7
2.470	28.0	-18.0

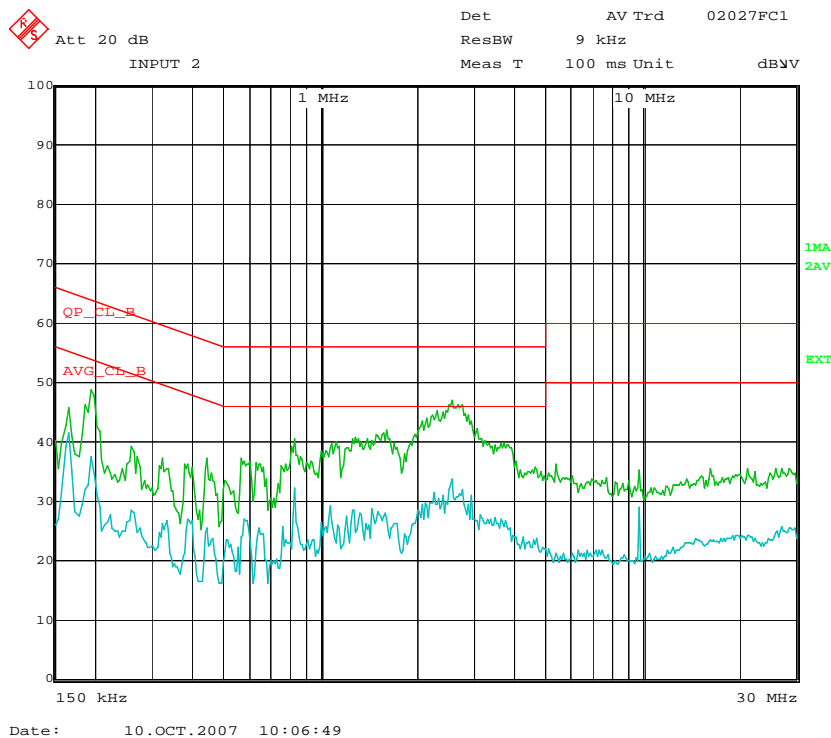
Legend: Blue curve represents average values  
 Green curve represents the peak values





**8.3.2 LIVE:**

Frequency (MHz)	Quasi-peak (dBμV)	QP margin (dB)	Frequency (MHz)	Average (dBμV)	Average margin (dB)
2.506	41.6	-14.4	0.166	41.1	-14.1
2.554	41.4	-14.6	0.826	30.2	-15.8
2.630	41.9	-14.1	2.518	26.8	-19.2
2.634	41.4	-14.6	2.542	26.5	-19.5
2.686	40.6	-15.4	2.758	26.5	-19.5
2.758	41.4	-14.6	2.554	26.2	-19.8



**8.4 INTERPRETATION AND REMARKS:**

The equipment complies with the §15.107, §15.207 and ICES 03 requirements, Class B



### 8.5 RADIATED EMISSIONS MEASUREMENTS (USB mode):

#### Measurements below 1GHz

Before final measurements of radiated emissions were made on the open-field three/ten meter range; the EUT was pre-scanned in the semi anechoic at one meter distance. This was done in order to determine its emissions spectrum signature. The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. This process was repeated during final radiated emissions measurements on the open-field range, at each frequency, in order to insure that maximum emission amplitudes were attained.

Final radiated emissions measurements were made on the three/ten-meter, open-field test site. The EUT was placed on a conductive turntable on isolated support, table, 0.8 meter above the ground plane. At each frequency, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters in order to determine the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarizations. The spectrum analyzer's 6 dB bandwidth was set to 120 kHz, and the analyzer was operated in the CISPR quasi-peak detection mode. No video filter less than 10 times the resolution bandwidth was used. The range of the frequency spectrum to be investigated is specified in FCC Part 15. The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

#### Summary of settings

<b>ESI 7 EMI TEST RECEIVER IN RECEIVER MODE</b>	
Peak measurement time	5 ms
step size	40 kHz
Preamplifier	ON
Preselector	ON
Resolution, Band With	120 kHz
Final Quasi Peak measurement time	1 s minimum
Final average measurement time	1 s minimum

All readings are quasi-peak unless stated otherwise.

No measurement over 1GHz is needed in this mode (no frequency over 108MHz)

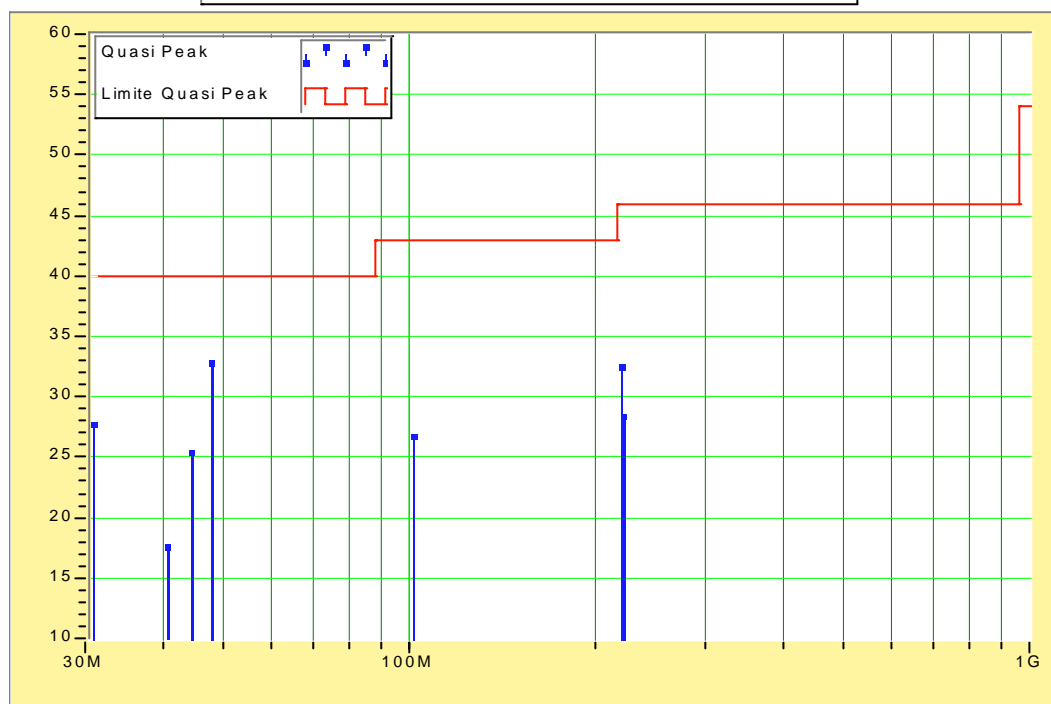


### 8.6 RESULTS (Class B):

The following data table lists the most significant emission frequencies, measured level, correction factor (includes cable and antenna corrections), corrected reading and the limit. The highest peaks are measured in quasi-peak detection mode at 3 meters distance.

Frequency (MHz)	Peak (dB $\mu$ V/m)	Quasi peak (dB $\mu$ V/m)	Limit dB $\mu$ V/m	Margin (dB)	Polar.	Height (cm)	Angle (°)	Factor Corr. (dB)	Comments
30,994	30,83	27,70	40.0	-12,30	V	102	10	18,34	
40,549	25,87	17,56	40.0	-22,44	V	104	10	12,86	
44,602	25,61	25,34	40.0	-14,66	V	105	10	11,44	
47,995	39,86	32,92	40.0	-7,08	V	108	10	10,38	
101,652	28,04	26,66	43.0	-16,34	V	114	10	12,79	RBW 10kHz
219,374	39,68	32,45	46.0	-13,55	V	101	10	14,49	
220,820	31,19	28,41	46.0	-17,59	V	102	10	15,25	

Champ électrique (dB $\mu$ V/m) rayonné en fonction de la fréquence (Hz)



### 8.7 INTERPRETATION AND REMARKS:

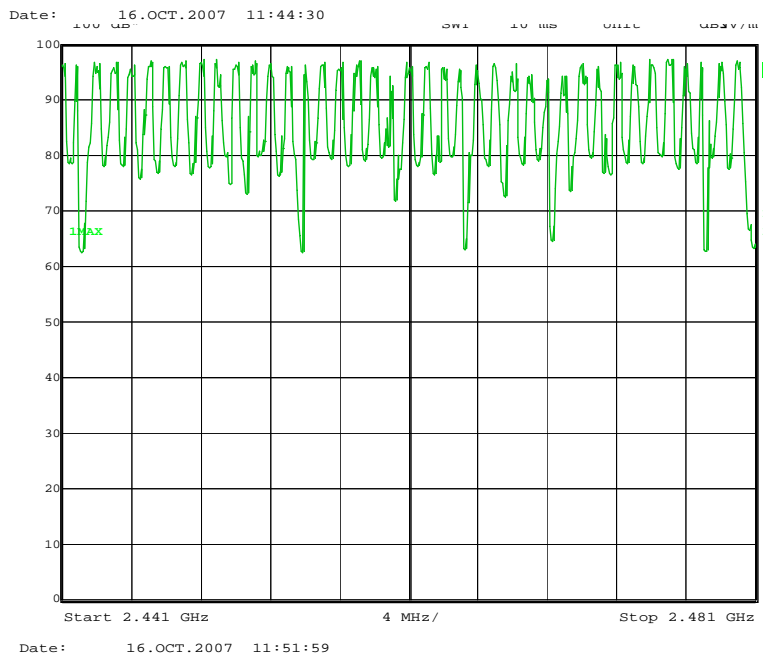
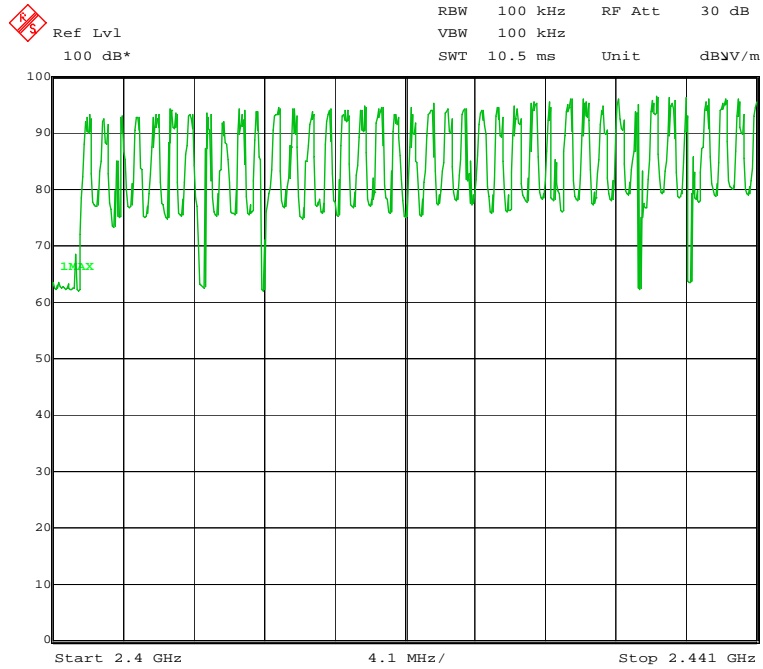
The equipment complies with the §15.109 and ICES03 requirements, class B in USB mode.



### 8.8 Intentional radiator operation within the band 2.4 – 2.483GHz §15.247 and RSS-210 A8:

The system uses **79 channels** numbered from 1 to 79

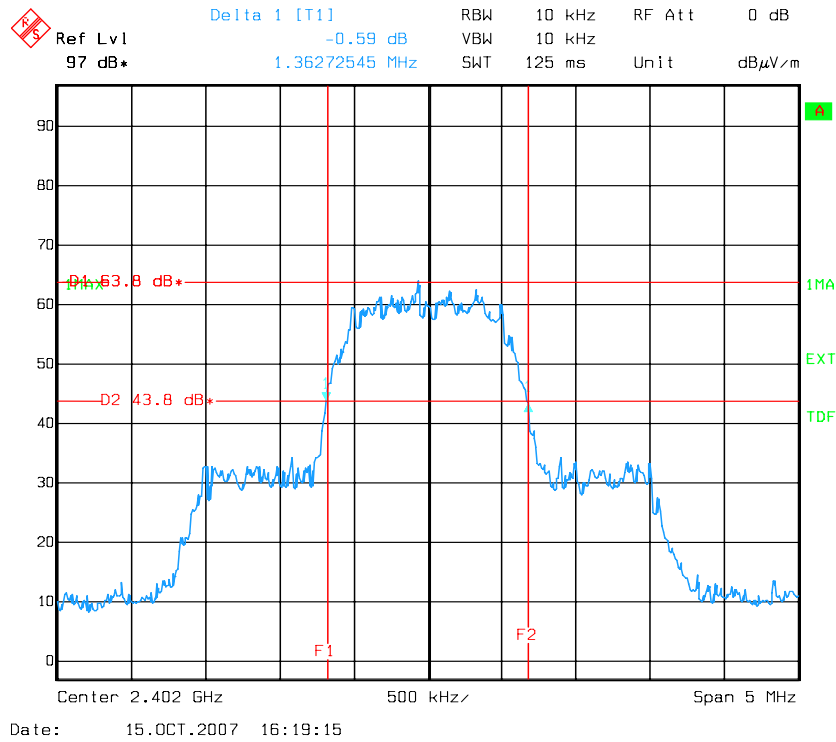
For details of frequency hopping technology used see Exhibit 7 datasheet of Bluetooth component.





### 8.8.1 Frequency hopping channel separation (15.247 (a) (1))

Each channel bandwidth in normal use is 1.36 MHz. This is allowed because the equipment uses an Adaptive frequency hopping system (as described in the data sheet of the component).

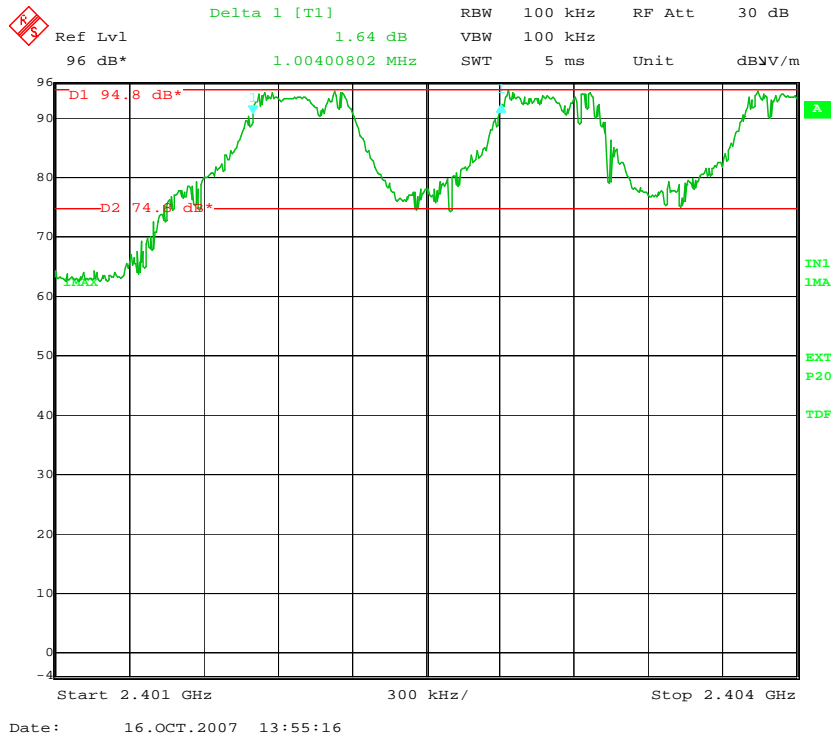






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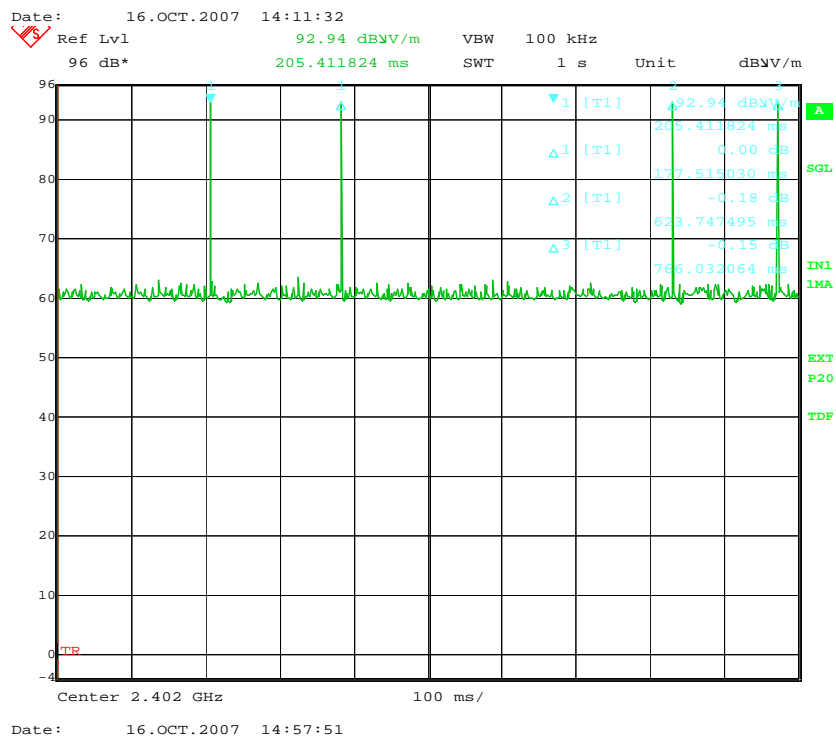
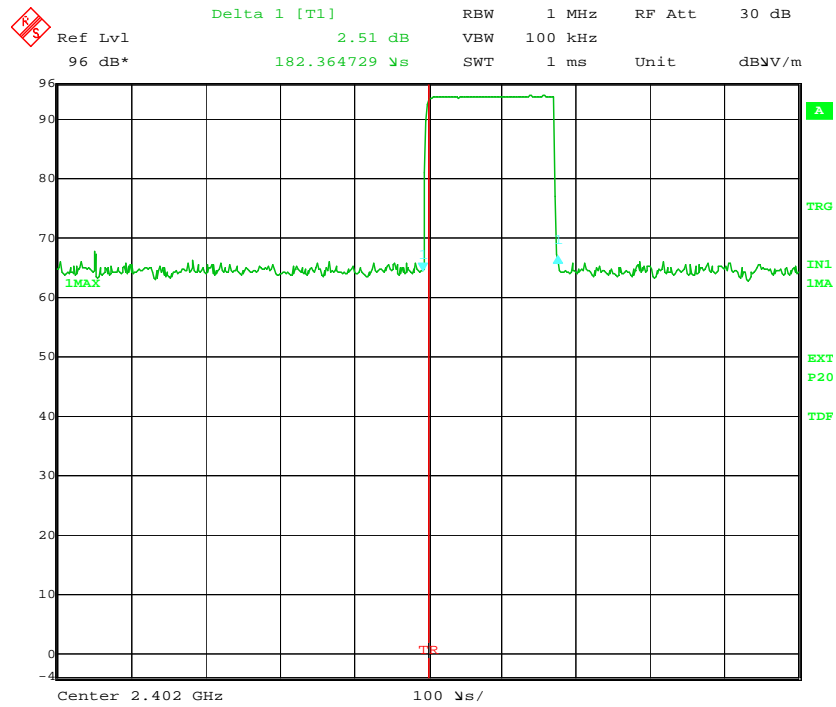
Identification : 292102-CC-1-c  
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Note the modulation parameters had been changed for that measurement because channels are overlapping in the normal use.  
The channel separation is 1MHz.



The measurement during a long transmission gives **182 μs every 205 ms** on each channel so the average time within a period of 10 seconds is **9 ms** which is less than the 400 ms limit.



That gives a maximum of 1 transmission in a period of 100 ms so the dual time correction factor for spurious measurement is  $20\text{Log}(1 \times 0.182/100) = -54.8 \text{ dB}$ .

### 8.8.2 Maximum peak output power

The maximum peak conducted power can't be measured in this product (internal antenna without connector).

According to DA 00-705, the alternative test procedure is used to calculate the conducted peak power.

$$P = \frac{(E*d)^2}{30G}$$

For calculation, G is taken to be 1 (isotropic antenna, worst case).

The conducted limit is 0.125W.

Measurements are done on OATS at 3 m distance.

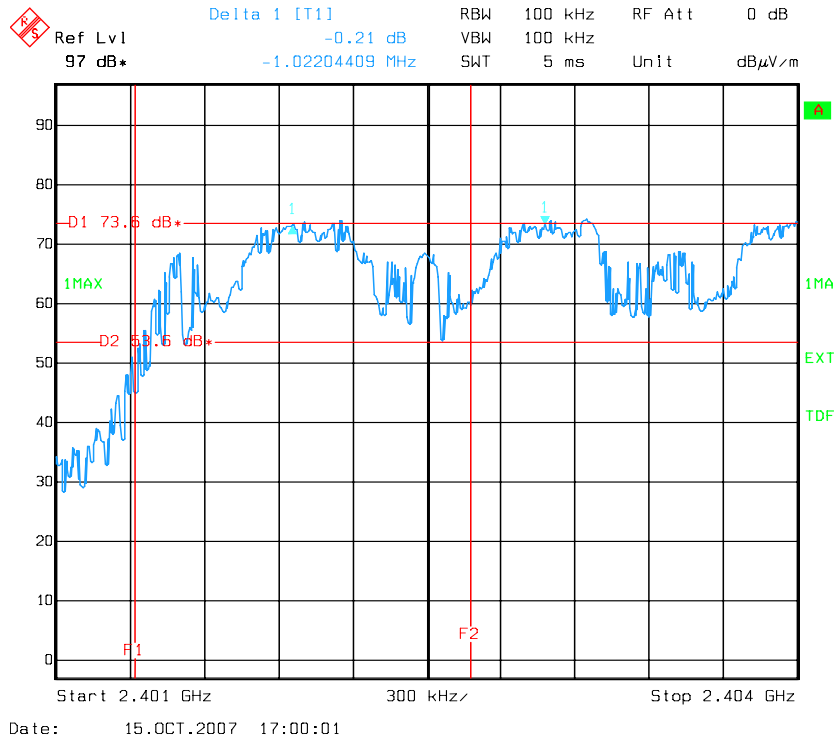
Results	Frequency (MHz)	3 m dBµV/m	Power (mW)
Channel low	2.402	107.02	15,7
Channel middle	2.441	107.73	17,8
Channel hight	2.480	107.34	16,2



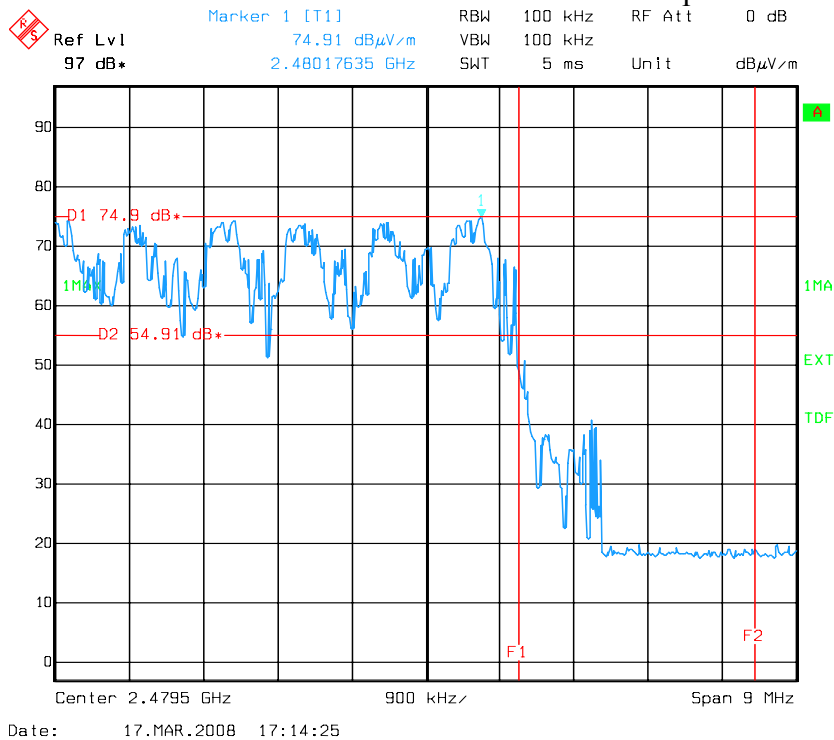
### 8.8.3 Spurious emissions (15.247 § (d))

In any 100 kHz bandwidth outside the frequency band, the level is at least 20 dB below that in the 100 kHz bandwidth within the band contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

At band edge Fl(2.400GHz), Fh(2.4835GHz), the level is far below this limit:



This lost curve has been measured in March 2008 on the same sample and in the same mode.



F2 is at 2483.5 MHz



**SPURIOUS EMISSIONS MEASUREMENTS:**

**Spurious emissions measurement results from 30MHz to 1GHz:**

Before final measurements of radiated emissions were made on the open-field three/ten meter range; the EUT was pre-scanned in the semi anechoic at one meter distance. This was done in order to determine its emissions spectrum signature. The physical arrangement of the test system was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. This process was repeated during final radiated emissions measurements on the open-field range, at each frequency, in order to insure that maximum emission amplitudes were attained.

Final radiated emissions measurements were made on the three/ten-meter, open-field test site. The EUT was placed on a conductive turntable on isolated support, table, 0.8 meter above the ground plane. At each frequency, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters in order to determine the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarizations. The spectrum analyzer's 6 dB bandwidth was set to 100kHz for peak measurement and 120 kHz for quasi-peak, and the analyzer was operated in the CISPR quasi-peak detection mode when needed. No video filter less than 10 times the resolution bandwidth was used. The range of the frequency spectrum to be investigated is specified in FCC Part 15. The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

**Summary of settings for measurements in restricted bands below 1GHz**

<b>ESI 7 EMI TEST RECEIVER IN RECEIVER MODE</b>	
Peak measurement time	5 ms
step size	40 kHz
Preamplifier	ON
Preselector	ON
Resolution, Band Width	120 kHz
Final Quasi Peak measurement time	1 s minimum
Final average measurement time	1 s minimum

**Spurious emissions measurement results from 1GHz to 25GHz:**

A pre-scan measurement is done very close to the product (less than 10cm) with 100kHz RBW and a max peak detector. Then measurements are performed at 1 m with 1MHz RBW and a video averaging (10Hz) for spurious measurement with normal hopping emission and reception.

Harmonics are measured with 1MHz RBW and an averaging due to the duty cycle correction factor.

Spurious emissions are made with a permanent emission on channel 1, channel 39 and channel 79.

No further spurious emission detected with normal modulation with hopping and in receiving mode.



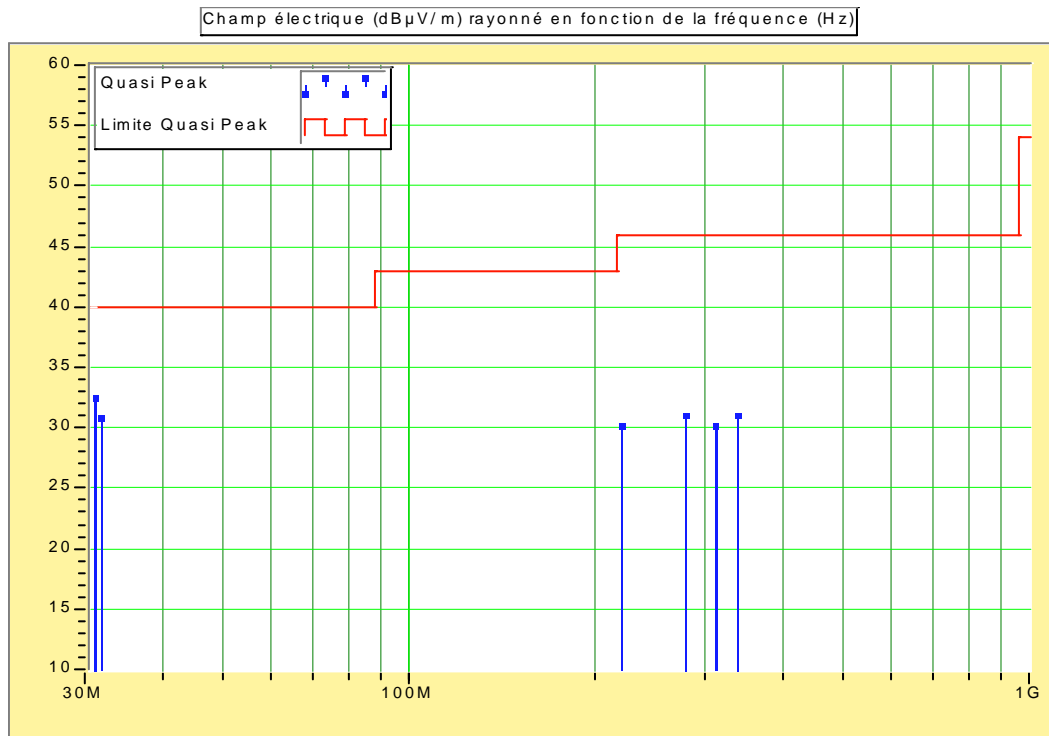
**8.8.3.1 Spurious RESULTS:**

Spurious emissions are made twice: with a permanent modulation and hopping active and with single channel with a permanent emission.

The following data table lists the most significant emission frequencies, measured level, correction factor (includes cable and antenna corrections), corrected reading and the limit.

3 m open area test site final measurements results

Frequency (MHz)	Peak (dBμV/m)	Quasi peak (dBμV/m)	Margin (dB)	Polar.	Height (cm)	Angle (°)	Factor Corr. (dB)
30,311	35,30	32,92	-7,08	V	126	10	18,31
31,074	35,18	32,51	-7,49	V	103	10	17,82
31,745	33,74	30,83	-9,17	V	103	0	17,58
219,381	37,34	30,18	-15,82	V	106	10	14,49
278,606	32,52	31,05	-14,95	V	212	10	16,73
311,454	32,11	30,21	-15,79	V	209	200	18,45
338,856	36,83	31,07	-14,93	V	117	170	19,45





Over 1 GHz, no spurious in both receiver and transmitter mode except following results in transmitting mode at fixed frequency has been found outside the harmonics.

Average limit in restricted bands §15.205 and table 1 of RSS-210 at 3 m is 54 dB $\mu$ V/m. Otherwise, the limit is only 20 dB under the emission level (87.73 dB $\mu$ V/m at 3m) without averaging with duty cycle factor.

The averaging correction factor is used only when necessary (margin lower than 10dB) and when the spurious radiation is pulsed in the same manner as the normal emission.

Max spurious for Channel 1 (2.402 GHz).

Freq. (GHz)	H.	Peak(1) (dB $\mu$ V/m) At 1m	Peak (1) corrected for 3 m distance (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Avg (2) (dB $\mu$ V/m) At 1 m	Avg (2) corrected for 3 m distance (dB $\mu$ V/m)	Averaging (duty cycle correction factor of -54.8) (dB $\mu$ V/m)	Avg Limit (dB $\mu$ V/m)	Min. Margin (dB)
4,804	2	NF		74				54	-
7,206	3	70.7	60.7	87.73					-27.03
9,608	4	NF		87.73					-
12,010	5	NF		74				54	-
14,412	6	NF		87.73					-
16,814	7	NF		87.73					-
19,216	8	NF		87.73					-
21,618	9	NF		87.73					-
24,020	10	NF		87.73					-

- (1) Peak measurement with 100kHz RBW and VBW when frequency outside restricted bands.  
Peak measurement with 1MHz RBW and VBW when frequency in restricted bands.
- (2) Peak measurement with 1MHz RBW and 10HzVBW when frequency in restricted bands.



Max spurious for Channel 39 (2.440GHz).

Freq. (GHz)	H.	Peak(1) (dBμV/m) At 1m	Peak (1) corrected for 3 m distance (dBμV/m)	Peak Limit (dBμV/m)	Avg (2) (dBμV/m) At 1 m	Avg (2) corrected for 3 m distance (dBμV/m)	Averaging (duty cycle correction factor of - 54.8) (dBμV/m)	Avg Limit (dBμV/m)	Min. Margin (dB)
4,88	2	NF		74				54	-
7,32	3	69.9	59.9	74	69.0	59.0	5.2	54	-14.1
9,76	4	NF		87.73					-
12,2	5	NF		74				54	-
14,64	6	NF		87.73					-
17,08	7	NF		87.73					-
19,52	8	NF		87.73					-
21,96	9	NF		87.73					-
24,4	10	NF		87.73					-

Max spurious for Channel 79 (2.480 GHz)

Freq. (GHz)	H.	Peak(1) (dBμV/m) At 1m	Peak (1) corrected for 3 m distance (dBμV/m)	Peak Limit (dBμV/m)	Avg (2) (dBμV/m) At 1 m	Avg (2) corrected for 3 m distance (dBμV/m)	Averaging (duty cycle correction factor of - 54.8) (dBμV/m)	Avg Limit (dBμV/m)	Min. Margin (dB)
4,960	2	NF		74				54	-
7,440	3	NF		74				54	-
9,920	4	NF		87.73					-
12,400	5	NF		74				54	-
14,880	6	NF		87.73					-
17,360	7	NF		87.73					-
19,840	8	NF		87.73					-
22,320	9	NF		74				54	-
24,800	10	NF		87.73					-

\* NF means Noise Floor





#### 8.8.4 Exposition of public to radio frequency energy.

In the frequency range of this product, the limit of S is  $1\text{mW}/\text{cm}^2$ .

With the formula given in OET 65 and the measurement of EIRP, we can compute that the minimum distance between a body and the antenna is:

For

$$R = \text{square root} (EIRP/(4*\text{Pi}*1))$$

$$R = \text{square root} (0.0178/(4*\text{Pi}*1))$$

$$R = 3,76 \text{ cm}$$

If we consider the averaging possibility, the safe distance is far lower.

The normal use of this product is with the antenna at a distance greater than 20 cm from a body.

Safe distance for hands and fingers is lower (FCC limits is  $4\text{W}/\text{kg}$  instead of  $0.08\text{W}/\text{kg}$  for whole body)

With the averaging on 10 grams of tissue for the hand that gives  $40\text{mW}$  on 10 grams as a limit.

The power of the emitter is less than  $20\text{mW}$ , less than  $40\text{mW}$  thus it complies to FCC requirements concerning exposition of public to radio frequency energy.

In accordance with bulletin OET 65 C, there is no need to make SAR evaluation for such device.

In accordance with RSS-102 issue 2 section 2.5.1, there is no need to make SAR evaluation for such device. ( $P < 20\text{mW}$ )

### 8.9 Antenna requirements

Not applicable because the antenna is located inside the equipment and is not replaceable without modifying the product.

### 8.10 Measurement of frequency stability

The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Measurements were conducted according to the operating temperature range given in the installation guide.

Frequencies (MHz)

Temperature	20°C		0°C		40°C	
Power Supply	230	108	253	108	253	230
Low Channel	2.401284	2.401283	2.401321	2.401343	2.401339	2.401284
High Channel	2.480724	2.480764	2.480735	2.480706	2.480706	2.480724

For low channel the point of frequency measurement is on the side band nearest the band limit (2.400 GHz) at a level 57 dB below the highest level.

For high channel the point of frequency measurement is on the side band nearest the band limit (2.4835 GHz) at a level 57 dB below the highest level.

Neither voltage nor temperature variations affect the frequency stability that is better than  $\pm 25$  ppm.