

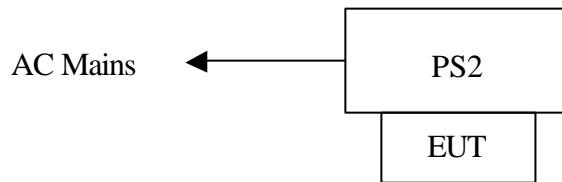
## 5. BAND EDGES MEASUREMENT

### 5.1. Test Equipment

The following test equipment were used during the Emission Bandwidth Test :

| Item | Equipment | Manufacturer | Model No.   | Serial No. | Last Cal.   | Cal. Interval |
|------|-----------|--------------|-------------|------------|-------------|---------------|
| 1.   | Spectrum  | Agilent      | E4407B      | MY41440292 | May 24,04   | 1 Year        |
| 2.   | Amp       | HP           | 8449B       | 3008A00863 | May 24,04   | 1 Year        |
| 3.   | Antenna   | EMCO         | 3115        | 9607-4877  | Jun. 15, 04 | 1.5 Year      |
| 4.   | HF Cable  | Hubersuhne   | Sucoflex104 | -          | May 24,04   | 1 Year        |

### 5.2. Block Diagram of Test Setup



(EUT: PS2 2.4G RF Wireless Controller (Transmit + Receiver))

### 5.3. Specification Limits (§15.247(c))

The highest level should be at least 20 dB below that in the 100kHz bandwidth.

### 5.4. Operating Condition of EUT

5.4.1. Setup the EUT as shown in Section 5.2..

5.4.2. Let the EUT work in test mode (CH 1/CH 79) and test it.

## 5.5. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Horn antenna is used as receiving antenna.

Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100kHz bandwidth from bank edge.

## 5.6. Test Results

**PASSED.**

The testing data was attached in the next pages.

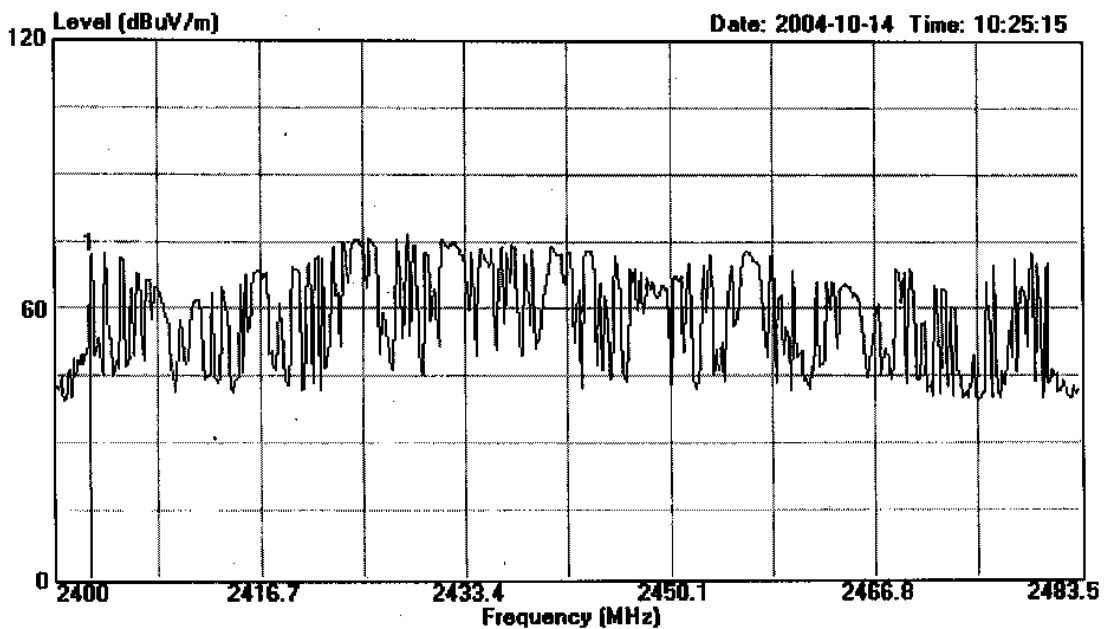


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Data#: 50 File#: C:\EMI TEST DATA\E\E-core.emi



Site : 1# Chamber  
Condition : 3m 3115 FACTOR R VERTICAL  
EUT : PS2 2.4G RF wireless controller  
: (transmit+receiver)  
M/N : HP5139A(receiver)  
Power : DC6V With xbox AC Input 120V/60Hz  
Test Mode : Band Edge Plots:Channel 1  
Test Engineer : Seco  
Memo : Temp:24'C Humi:54%

| Freq | Over Limit |       | Read  | Probe | Cable  |      |        |
|------|------------|-------|-------|-------|--------|------|--------|
|      | Level      | Limit | Line  | Level | Factor | Loss | Remark |
| 1    | 2402.840   | 71.91 | ----- | 71.91 | 0.00   | 0.00 | Peak   |

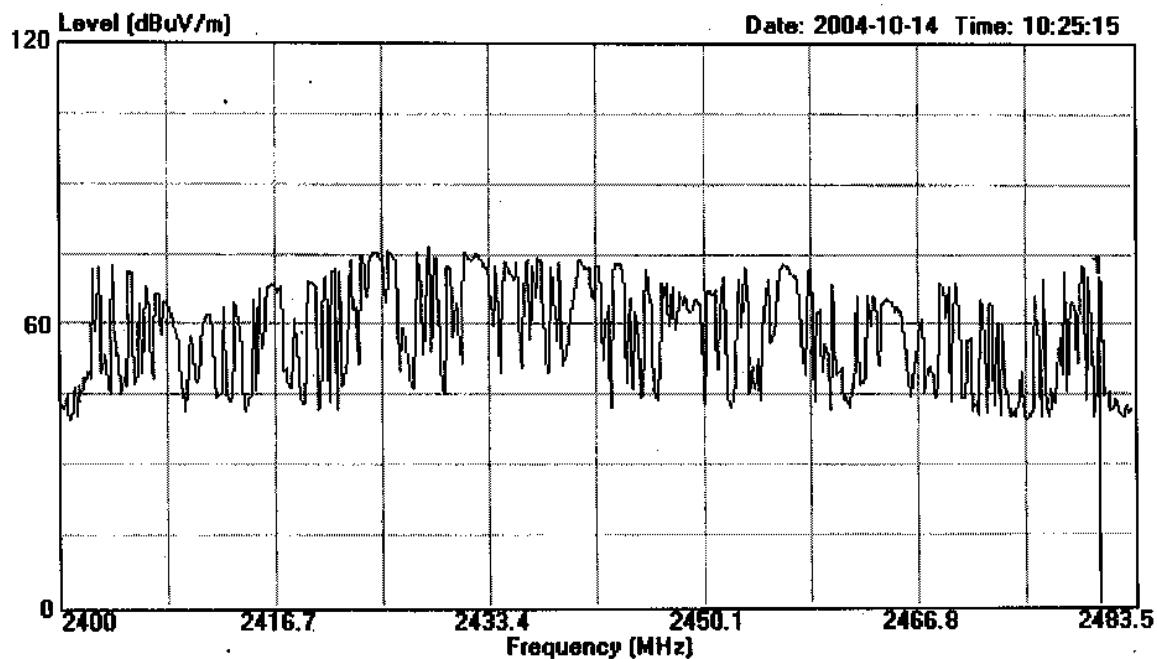


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Data#: 49 File#: C:\EMI TEST DATA\E\E-core.emi



Site : 1# Chamber  
 Condition : 3m 3115 FACTOR R VERTICAL  
 EUT : PS2 2.4G RF wireless controller  
 : (transmit+receiver)  
 M/N : HP5139A(receiver)  
 Power : DC6V With xbox AC Input 120V/60Hz  
 Test Mode : Band Edge Plots:Channel 79  
 Test Engineer : Seco  
 Memo : Temp:24'C Humi:54%

| Freq | Level | Over | Limit  | Read  | Probe  | Cable |
|------|-------|------|--------|-------|--------|-------|
|      |       | Line | dBuV/m | Level | Factor | Loss  |

|   | MHz      | dBuV/m | dB    | dBuV/m | dBuV  | dB   | dB        |
|---|----------|--------|-------|--------|-------|------|-----------|
| 1 | 2480.910 | 70.08  | ----- | -----  | 70.08 | 0.00 | 0.00 Peak |