

FCC CERTIFICATION  
On Behalf of  
Golden Sun Solar Technic Co., Ltd.

Solar Wireless Stereo Speaker Transmitter  
Model No.: G1A8001T

FCC ID: TUXSPER

Prepared for : Golden Sun Solar Technic Co., Ltd.  
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Electronic Industrial Zone, Quanzhou, Fujian, China  
Prepared by : ACCURATE TECHNOLOGY CO. LTD  
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Report Number : ATE20052220  
Date of Test : December 14, 2005  
Date of Report : December 16, 2005

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## Test Report Certification

Applicant : Golden Sun Solar Technic Co., Ltd.  
 Manufacturer : Golden Sun Solar Technic Co., Ltd.  
 EUT Description : Solar Wireless Stereo Speaker Transmitter  
 (A) MODEL NO.: G1A8001T  
 (B) SERIAL NO.: N/A  
 (C) POWER SUPPLY: 8Vd.c. with adapter

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.249, Section 15.207:2004  
 & ANSI C63.4: 2003

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.249, Section 15.207 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : December 14, 2005

Prepared by :   
 (Engineer)

Reviewer :   
 (Quality Manager)

Approved & Authorized Signer :   
 (Manager)

# 1. GENERAL INFORMATION

## 1.1. Description of Device (EUT)

|                         |   |  |
|-------------------------|---|--|
| EUT                     | : | Solar Wireless Stereo Speaker Transmitter  |
| Model Number            | : | G1A8001T   |
| Power Supply            | : | 8Vd.c. with adapter<br>The AC/DC Adapter used for test:<br>Model No.: HCD8-200;<br>Input: 120Va.c. 60Hz , 9W;<br>Output: 8Vd.c. 200mA<br>UL Listed 250869; |
| Applicant               | : | Golden Sun Solar Technic Co., Ltd.   |
| Address                 | : | Golden Sun Industrial Park, Jiangnan High-Tech<br>Electronic Industrial Zone, Quanzhou, Fujian, China  |
| Manufacturer            | : | Golden Sun Solar Technic Co., Ltd.   |
| Address                 | : | Golden Sun Industrial Park, Jiangnan High-Tech<br>Electronic Industrial Zone, Quanzhou, Fujian, China  |
| Date of sample received | : | December 10, 2005  |
| Date of Test            | : | December 14, 2005  |

## 1.2. Description of Test Facility

|               |   |   |
|---------------|---|---|
| EMC Lab       | : | Accredited by TUV Rheinland Shenzhen, May 10, 2004<br><br>Accredited by FCC, May 10, 2004<br>The Certificate Registration Number is 253065<br><br>Accredited by Industry Canada, May 18, 2004<br>The Certificate Registration Number is IC 5077 |
| Name of Firm  | : | ACCURATE TECHNOLOGY CO. LTD   |
| Site Location | : | F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.<br>Science & Industry Park, Nanshan, Shenzhen, Guangdong<br>P.R. China   |

## 1.3. Measurement Uncertainty

Conducted Emission Uncertainty =  $\pm 2.66\text{dB}$

Radiated Emission Uncertainty =  $\pm 4.26\text{dB}$

## 2. MEASURING DEVICE AND TEST EQUIPMENT

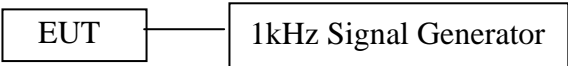
**Table 1: List of Test and Measurement Equipment**

| Kind of equipment | Manufacturer  | Type     | S/N        | Calibrated until |
|-------------------|---------------|----------|------------|------------------|
| EMI Test Receiver | Rohde&Schwarz | ESI26    | 838786/013 | 01.02.2006       |
| Bilog Antenna     | Chase         | CBL6112B | 2591       | 01.02.2006       |
| Horn Antenna      | Rohde&Schwarz | HF906    | 100013     | 01.02.2006       |
| Spectrum Analyzer | Anritsu       | MS2651B  | 6200238856 | 01.02.2006       |
| EMI Test Receiver | Rohde&Schwarz | ESCS30   | 100307     | 01.02.2006       |
| L.I.S.N.          | Rohde&Schwarz | ESH3-Z5  | 100305     | 01.02.2006       |
| L.I.S.N.          | Rohde&Schwarz | ESH3-Z5  | 100310     | 01.02.2006       |
| Signal Generator  | GW            | GAG-810  | 0913317    | 01.02.2006       |

### 3. FUNDAMENTAL AND HARMONICS RADIATED EMISSION MEASUREMENT

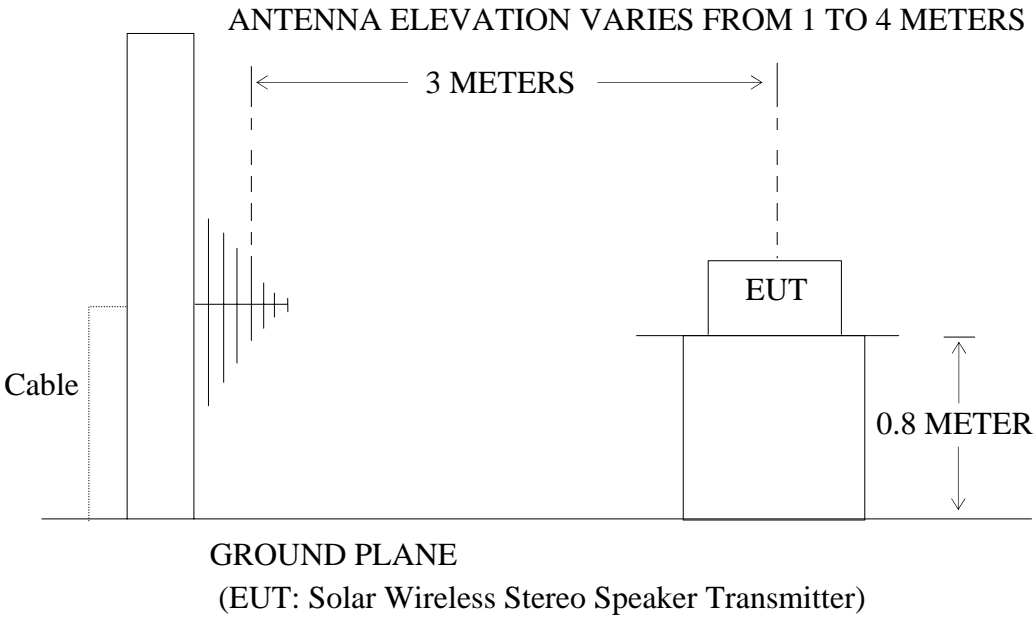
#### 3.1. Block Diagram of Test Setup

##### 3.1.1. Block diagram of connection between the EUT and simulators



(EUT: Solar Wireless Stereo Speaker Transmitter)

##### 3.1.2. Anechoic Chamber Test Setup Diagram



#### 3.2. The Emission Limit

3.2.1 For intentional radiators, According to section 15.249(a), Operation within the frequency band of 902 to 928MHz, The fundamental field strength shall not exceed 94 dBμV/m and the harmonics shall not exceed 54 dBμV/m.

| Fundamental Frequency | Field Strength of Fundamental (millivolts/meter) | Field Strength of Fundamental (microvolts/meter) |
|-----------------------|--|--|
| 902-928MHz            | 50   | 500  |
| 2400-2483.5MHz        | 50   | 500  |
| 5725-5875MHz          | 50   | 500  |
| 24.0-24.25GHz         | 250  | 2500   |

3.2.2 According to section 15.249(e), as shown in section 15.35(b), The peak field strength

of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 3.3. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### 3.3.1. Solar Wireless Stereo Speaker Transmitter (EUT)

Model Number : G1A8001T  
Serial Number : N/A  
Manufacturer : Golden Sun Solar Technic Co., Ltd.

### 3.4. Operating Condition of EUT

3.4.1. Setup the EUT and simulator as shown as Section 3.1.

3.4.2. Turn on the power of all equipment.

3.4.3. Let the EUT work in TX modes (On with 1kHz Signal) measure it. The transmitter have two channel, The frequency are 912M, 913MHz. We are select two channel TX frequency to transmitted.

### 3.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

The bandwidth of test receiver (R&S ESI26) is set at 120KHz in 30-1000MHz. and set at 1MHz in above 1000MHz.

### 3.6. The Field Strength of Radiation Emission Measurement Results

**PASS.**

|               |                                      |                |                       |
|---------------|--------------------------------------|----------------|-----------------------|
| Date of Test: | <u>December 14, 2005</u>             | Temperature:   | <u>22°C</u>           |
|               | <u>Solar Wireless Stereo Speaker</u> |                |                       |
| EUT:          | <u>Transmitter</u>                   | Humidity:      | <u>50%</u>            |
| Model No.:    | <u>G1A8001T</u>                      | Power Supply:  | <u>120V a.c./60Hz</u> |
|               | <u>Channel A TX 913MHz with 1kHz</u> |                |                       |
| Test Mode:    | <u>signal</u>                        | Test Engineer: | <u>Andy</u>           |

#### Fundamental and Harmonics Radiated Emissions

| Frequency<br>(MHz) | Reading(dBμV/m) |       | Factor(dB)<br>Corr. | Result(dBμV/m) |      | Limit(dBμV/m) |      | Margin(dBμV/m) |      | Polarization |
|--------------------|-----------------|-------|---------------------|----------------|------|---------------|------|----------------|------|--------------|
|                    | AV              | PEAK  |                     | AV             | PEAK | AV            | PEAK | AV             | PEAK |              |
| 913.024            | 98.5            | 101.6 | -11.8               | 86.7           | 89.8 | 94            | 114  | 7.3            | 24.2 | Vertical     |
| 913.024            | 98.4            | 101.5 | -11.8               | 86.6           | 89.7 | 94            | 114  | 7.4            | 24.3 | Horizontal   |
| 1826.048           | 52.8            | 55.8  | -5.4                | 47.4           | 50.5 | 54            | 74   | 6.6            | 23.5 | Vertical     |
| 1826.048           | 52.0            | 55.1  | -5.4                | 46.6           | 49.7 | 54            | 74   | 7.4            | 24.3 | Horizontal   |
| 2739.072           | 43.6            | 46.7  | -2.6                | 41.0           | 44.1 | 54            | 74   | 13.0           | 29.9 | Vertical     |
| 2739.072           | 43.6            | 46.6  | -2.6                | 41.0           | 44.0 | 54            | 74   | 13.0           | 30   | Horizontal   |
| 3652.096           | 45.0            | 48.1  | -0.3                | 44.7           | 47.8 | 54            | 74   | 9.3            | 26.2 | Vertical     |
| 3652.096           | 44.9            | 48.0  | -0.3                | 44.6           | 47.7 | 54            | 74   | 9.4            | 26.3 | Horizontal   |
| 4565.121           | 38.6            | 41.7  | 1.8                 | 40.4           | 43.5 | 54            | 74   | 13.6           | 30.5 | Vertical     |
| 4565.121           | 38.0            | 41.1  | 1.8                 | 39.8           | 42.9 | 54            | 74   | 14.2           | 31.1 | Horizontal   |
| 5478.144           | 38.1            | 41.2  | 3.7                 | 41.8           | 44.9 | 54            | 74   | 12.2           | 29.1 | Vertical     |
| 5478.144           | 36.9            | 40.0  | 3.7                 | 40.6           | 43.7 | 54            | 74   | 13.4           | 30.3 | Horizontal   |

Note:

The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain



|               |                               |                |                |
|---------------|-------------------------------|----------------|----------------|
| Date of Test: | December 14, 2005             | Temperature:   | 22°C           |
|               | Solar Wireless Stereo Speaker |                |                |
| EUT:          | Transmitter                   | Humidity:      | 50%            |
| Model No.:    | G1A8001T                      | Power Supply:  | 120V a.c./60Hz |
|               | Channel B TX 912MHz with 1kHz |                |                |
| Test Mode:    | signal                        | Test Engineer: | Andy           |

### Fundamental and Harmonics Radiated Emissions

| Frequency<br>(MHz) | Reading(dBμV/m) |       | Factor(dB)<br>Corr. | Result(dBμV/m) |      | Limit(dBμV/m) |      | Margin(dBμV/m) |      | Polarization |
|--------------------|-----------------|-------|---------------------|----------------|------|---------------|------|----------------|------|--------------|
|                    | AV              | PEAK  |                     | AV             | PEAK | AV            | PEAK | AV             | PEAK |              |
| 912.036            | 99.8            | 102.9 | -11.8               | 88.0           | 91.1 | 94            | 114  | 6.0            | 22.9 | Vertical     |
| 912.036            | 99.7            | 102.8 | -11.8               | 87.9           | 91.0 | 94            | 114  | 6.1            | 23.0 | Horizontal   |
| 1824.072           | 53.4            | 56.5  | -5.4                | 48.0           | 51.1 | 54            | 74   | 6.0            | 22.9 | Vertical     |
| 1824.072           | 52.3            | 55.4  | -5.4                | 46.9           | 50.0 | 54            | 74   | 7.1            | 24.0 | Horizontal   |
| 2736.108           | 45.4            | 48.5  | -2.6                | 42.8           | 45.9 | 54            | 74   | 11.2           | 28.1 | Vertical     |
| 2736.108           | 44.6            | 47.7  | -2.6                | 42.0           | 45.1 | 54            | 74   | 12.0           | 28.9 | Horizontal   |
| 3648.144           | 46.3            | 49.4  | -0.3                | 46.0           | 49.1 | 54            | 74   | 8.0            | 24.9 | Vertical     |
| 3648.144           | 45.6            | 48.7  | -0.3                | 45.3           | 48.4 | 54            | 74   | 8.7            | 25.6 | Horizontal   |
| 4560.181           | 40.7            | 43.8  | 1.8                 | 42.5           | 45.6 | 54            | 74   | 11.5           | 28.4 | Vertical     |
| 4560.181           | 39.9            | 43.0  | 1.8                 | 41.7           | 44.8 | 54            | 74   | 12.3           | 29.2 | Horizontal   |
| 5472.216           | 39.6            | 42.7  | 3.7                 | 43.3           | 46.4 | 54            | 74   | 10.7           | 27.6 | Vertical     |
| 5472.216           | 38.8            | 41.9  | 3.7                 | 42.5           | 45.6 | 54            | 74   | 11.5           | 28.4 | Horizontal   |

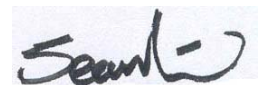
Note:

The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

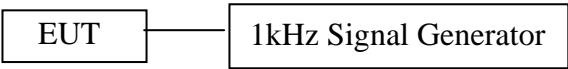
Reviewer :



# 4. RADIATED EMISSION FOR FCC PART 15 SECTION 15.249(D)

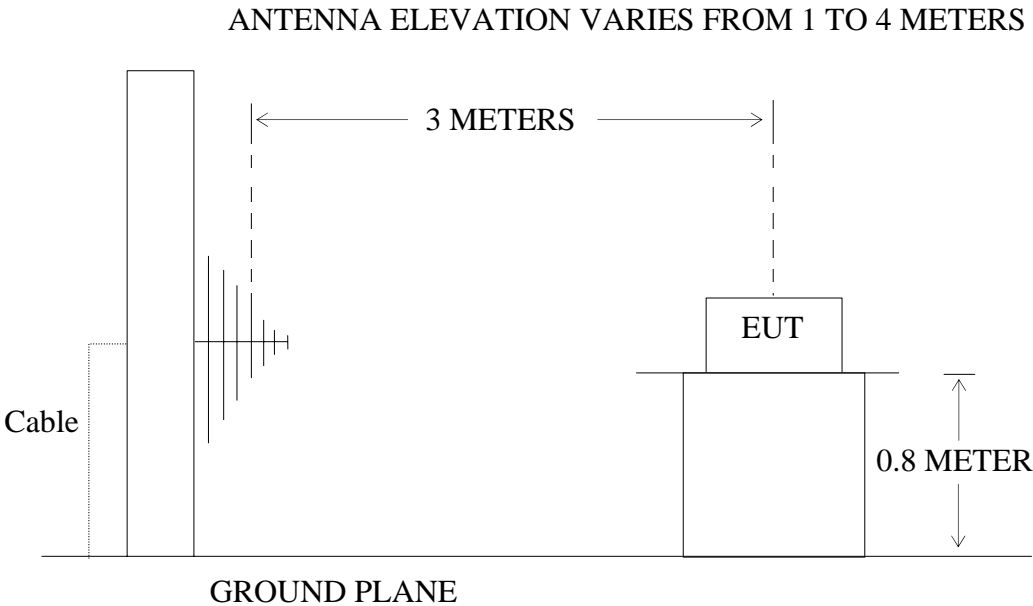
## 4.1. Block Diagram of Test Setup

### 4.1.1. Block diagram of connection between the EUT and simulators



(EUT: Solar Wireless Stereo Speaker Transmitter)

### 4.1.2. Anechoic Chamber Test Setup Diagram



(EUT: Solar Wireless Stereo Speaker Transmitter)

## 4.2. The Emission Limit For Section 15.249(d)

4.2.1 Emission radiated outside of the specified frequency bands, except for harmonics, shall be comply with the general radiated emission limits in Section 15.209.

Radiation Emission Measurement Limits According to Section 15.209

| Frequency<br>(MHz) | Limit,  |   |   |
|--------------------|---|---|---|
|                    | Field Strength of<br>Quasi-peak Value<br>(microvolts/m) | Field Strength of<br>Quasi-peak Value<br>(dBμV/m) | The final measurement<br>in band 9-90kHz,<br>110-490kHz and<br>above 1000MHz is<br>performed with |
| 30 - 88            | 100   | 40  |   |

|           |     |      |   |
|-----------|-----|------|---|
| 88 - 216  | 150 | 43.5 | Average detector.<br>Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector. |
| 216 - 960 | 200 | 46   |   |
| Above 960 | 500 | 54   |   |

### 4.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### 4.3.1. Solar Wireless Stereo Speaker Transmitter (EUT)

Model Number : G1A8001T  
 Serial Number : N/A  
 Manufacturer : Golden Sun Solar Technic Co., Ltd.

### 4.4.Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown as Section 4.1.

4.4.2. Turn on the power of all equipment.

4.4.3. Let the EUT work in TX modes (On with 1kHz Signal) measure it. The transmitter have two channel, The frequency are 912M, 913MHz. We are select two channel TX frequency to transmitted.

### 4.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

The bandwidth of test receiver (R&S ESI26) is set at 120KHz in 30-1000MHz. and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 1000MHz, 1GHz to 10GHz are checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

#### 4.6. The Emission Measurement Result

**PASS.**

|               |                                      |                |                       |
|---------------|--------------------------------------|----------------|-----------------------|
| Date of Test: | <u>December 14, 2005</u>             | Temperature:   | <u>22°C</u>           |
|               | <u>Solar Wireless Stereo Speaker</u> |                |                       |
| EUT:          | <u>Transmitter</u>                   | Humidity:      | <u>50%</u>            |
| Model No.:    | <u>G1A8001T</u>                      | Power Supply:  | <u>120V a.c./60Hz</u> |
|               | <u>Channel A TX 913MHz with 1kHz</u> |                |                       |
| Test Mode:    | <u>signal</u>                        | Test Engineer: | <u>Andy</u>           |

| Frequency<br>(MHz) | Reading(dBμV/m) |    | Factor(dB)<br>Corr. | Result(dBμV/m) |    | Limit(dBμV/m) |    | Margin(dBμV/m) |    | Polarization |
|--------------------|-----------------|----|---------------------|----------------|----|---------------|----|----------------|----|--------------|
|                    | AV              | QP |                     | AV             | QP | AV            | QP | AV             | QP |              |
| -                  | -               | -  | -                   | -              | -  | -             | -  | -              | -  | Vertical     |
| -                  | -               | -  | -                   | -              | -  | -             | -  | -              | -  | Horizontal   |

Note:

1. Remark “-” means that the emission level is too low to be measured.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any) from the measured reading. The basic equation calculation is as follows:  

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain
3. All the scanning waveforms are attached in Appendix I.

Date of Test: December 14, 2005      Temperature: 22°C  
                          Solar Wireless Stereo Speaker  
 EUT: Transmitter      Humidity: 50%  
 Model No.: G1A8001T      Power Supply: 120V a.c./60Hz  
                          Channel B TX 912MHz with 1kHz  
 Test Mode: signal      Test Engineer: Andy

| Frequency<br>(MHz) | Reading(dBμV/m) |    | Factor(dB)<br>Corr. | Result(dBμV/m) |    | Limit(dBμV/m) |    | Margin(dBμV/m) |    | Polarization |
|--------------------|-----------------|----|---------------------|----------------|----|---------------|----|----------------|----|--------------|
|                    | AV              | QP |                     | AV             | QP | AV            | QP | AV             | QP |              |
| -                  | -               | -  | -                   | -              | -  | -             | -  | -              | -  | Vertical     |
| -                  | -               | -  | -                   | -              | -  | -             | -  | -              | -  | Horizontal   |

Note:

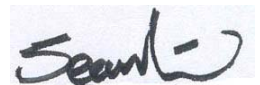
1. Remark “- “ means that the emission level is too low to be measured.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

3. All the scanning waveforms are attached in Appendix I.

Reviewer :



## **5. BAND EDGES FOR FCC PART 15 SECTION 15.249(D)**

### **5.1. The Requirement For Section 15.249(d)**

5.1.1. According to Section 15.249(d), out band emission except for harmonics shall be at least attenuated by 50 dB below the level of the fundamental.

### **5.2. EUT Configuration on Measurement**

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### **5.2.1. Solar Wireless Stereo Speaker Transmitter (EUT)**

Model Number : G1A8001T  
Serial Number : N/A  
Manufacturer : Golden Sun Solar Technic Co., Ltd.

### **5.3. Operating Condition of EUT**

5.3.1. Setup the EUT and simulator as shown as Section 4.1.

5.3.2. Turn on the power of all equipment.

5.3.3. Let the EUT work in TX modes (On with 1kHz Signal) measure it. The transmitter have two channel, The frequency are 912M, 913MHz. We are select two channel TX frequency to transmitted.

### **5.4. Test Procedure**

5.4.1. Measure the fundamental amplitude appearing on spectral display and set it as a reference level. measure the lower band edge amplitude. Get the delta amplitude and edge frequency.

5.4.2. Repeat above procedures , Measure the fundamental amplitude appearing on spectral display and set it as a reference level. measure the upper band edge amplitude. Get the delta amplitude and edge frequency.

## 5.5. The Measurement Result

### Pass

#### Channel A: TX 913MHz

5.5.1 Lower band edge: Emission radiated outside of the lower band edge are 53.52 dB below the level of the fundamental.

5.5.2 Upper band edge: Emission radiated outside of the upper band edge are 53.30 dB below the level of the fundamental.

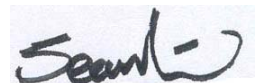
#### Channel B: TX 912MHz

5.5.3 Lower band edge: Emission radiated outside of the lower band edge are 53.64 dB below the level of the fundamental.

5.5.4 Upper band edge: Emission radiated outside of the upper band edge are 53.00 dB below the level of the fundamental.

All the spectral waveforms are attached in Appendix I.

Reviewer :

A handwritten signature in black ink, appearing to read "Sean", is written over a light blue rectangular background. The signature is stylized with a large, sweeping 'S' and a checkmark-like flourish at the end.

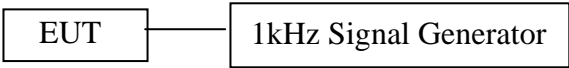


# 6. CONDUCTED EMISSION FOR FCC PART 15 SECTION

## 15.207(A)

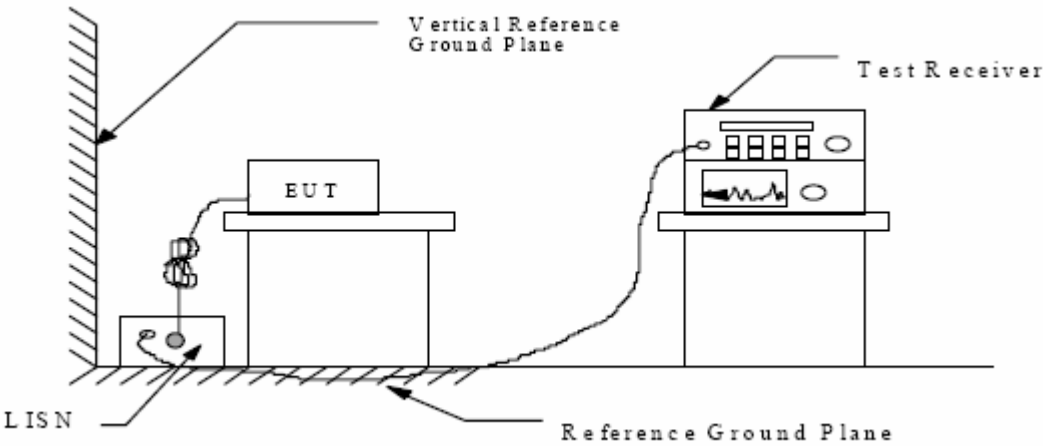
### 6.1. Block Diagram of Test Setup

#### 6.1.1. Block diagram of connection between the EUT and simulators



(EUT: Solar Wireless Stereo Speaker Transmitter)

#### 6.1.2. Shielding Room Test Setup Diagram



(EUT: Solar Wireless Stereo Speaker Transmitter)

### 6.2. The Emission Limit For Section 15.207(a)

#### 6.2.1 Radiation Emission Measurement Limits According to Section 15.207(a)

| Frequency<br>(MHz) | Conducted Limit (dBμV) |           |
|--------------------|------------------------|-----------|
|                    | Quasi-peak             | Average   |
| 0.15 – 0.5         | 66 to 56*              | 56 to 46* |
| 0.5 - 5            | 56                     | 46        |
| 5 - 30             | 60                     | 50        |

\* Decreases with the logarithm of the frequency.

### 6.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### 6.3.1. Solar Wireless Stereo Speaker Transmitter (EUT)

Model Number : G1A8001T  
Serial Number : N/A  
Manufacturer : Golden Sun Solar Technic Co., Ltd.

### 6.4.Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX modes (On with 1kHz Signal) measure it.

### 6.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

All the scanning waveforms are attached in Appendix I.

## 6.6. Power Line Conducted Emission Measurement Results

**PASS.**

The frequency range from 150kHz to 30MHz is checked.

|               |                                      |                |                       |
|---------------|--------------------------------------|----------------|-----------------------|
| Date of Test: | <u>December 14, 2005</u>             | Temperature:   | <u>22°C</u>           |
|               | <u>Solar Wireless Stereo Speaker</u> |                |                       |
| EUT:          | <u>Transmitter</u>                   | Humidity:      | <u>50%</u>            |
| Model No.:    | <u>G1A8001T</u>                      | Power Supply:  | <u>120V a.c./60Hz</u> |
| Test Mode:    | <u>TX with 1kHz signal</u>           | Test Engineer: | <u>Andy</u>           |

| Test Line | Frequency<br>MHz | Emission Level(dBμV) |    | Limits(dBμV) |    | Margin(dBμV) |    |
|-----------|------------------|----------------------|----|--------------|----|--------------|----|
|           |                  | QP                   | AV | QP           | AV | QP           | AV |
| Va        | -                | -                    | -  | -            | -  | -            | -  |
| Vb        | -                | -                    | -  | -            | -  | -            | -  |

Remark “-” means that the emission level is too low to be measured.

The spectral diagrams in appendix I display the measurement of un-weighted peak values.

Reviewer : 

## 7. ANTENNA REQUIREMENT

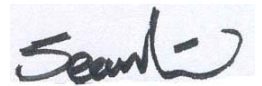
### 7.1. The Requirement

- 7.1.1. According to Section 15.203, 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.

### 7.2. Antenna Construction

The antenna is mount on the TX PCB, no consideration of replacement.

Reviewer :

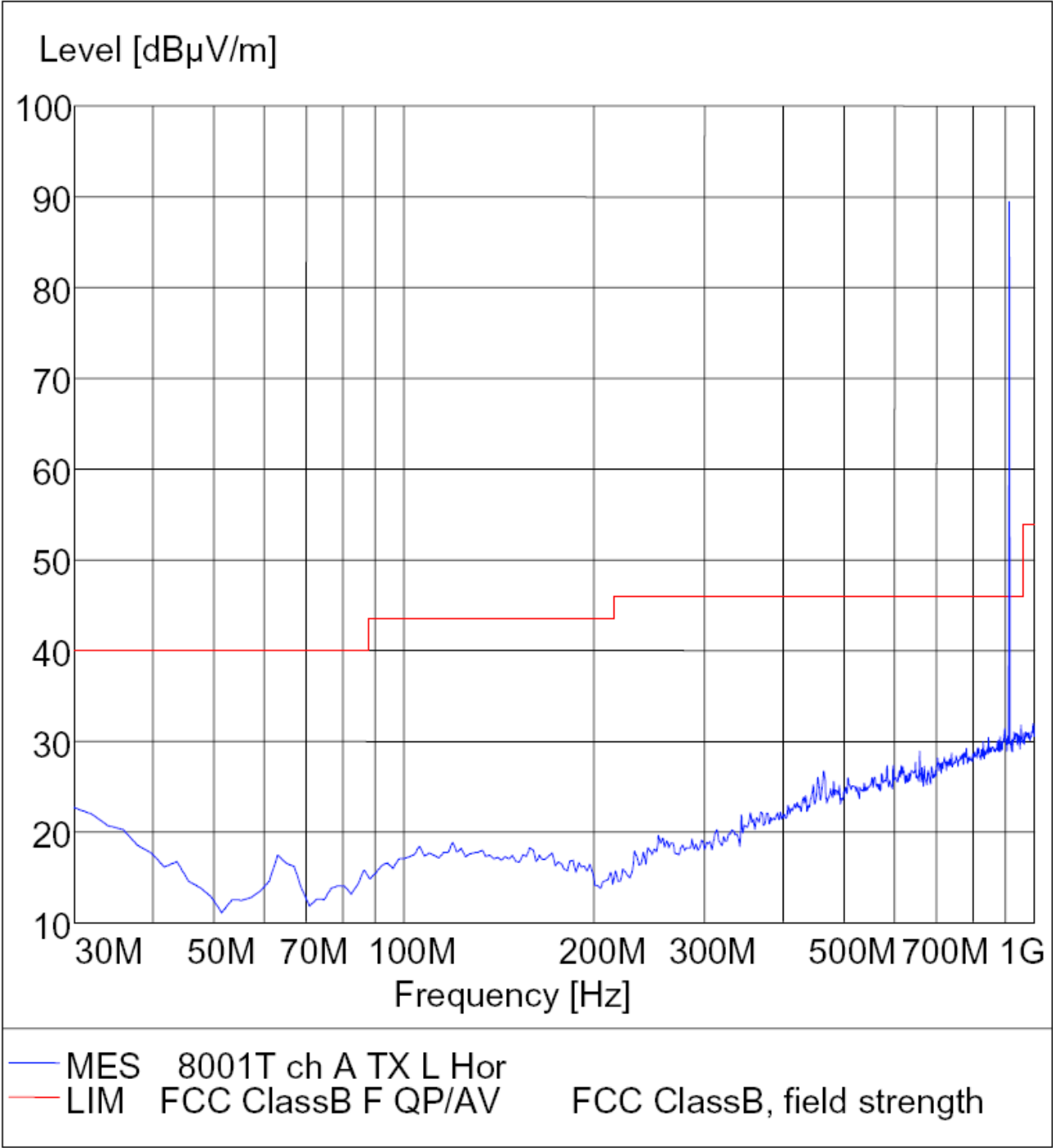
A handwritten signature in black ink, appearing to read "Sean", is written over a light blue rectangular background. The signature is stylized with a large 'S' and a trailing flourish.

## APPENDIX I (Test Curves)

Radiated Disturbance

FCC Part 15

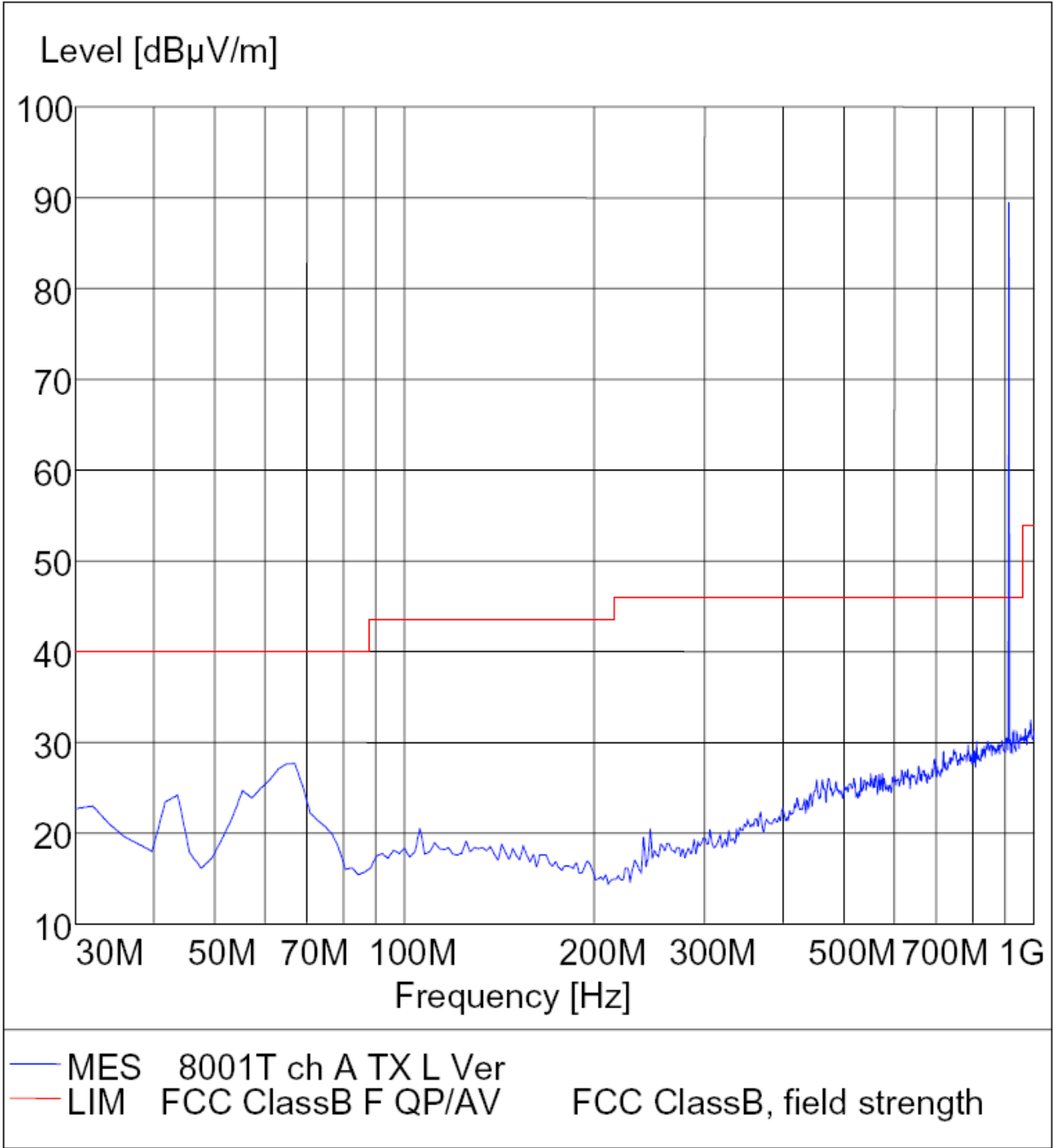
EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
Manufacturer: Golden Sun Solar Technic Co., Ltd.  
Operating Condition: TX channel A  
Test Site: ATC EMC Lab.SAC  
Operator: Andy  
Test Specification: Horizontal  
Comment : AC 120V/50Hz  
:



Radiated Disturbance

FCC Part 15

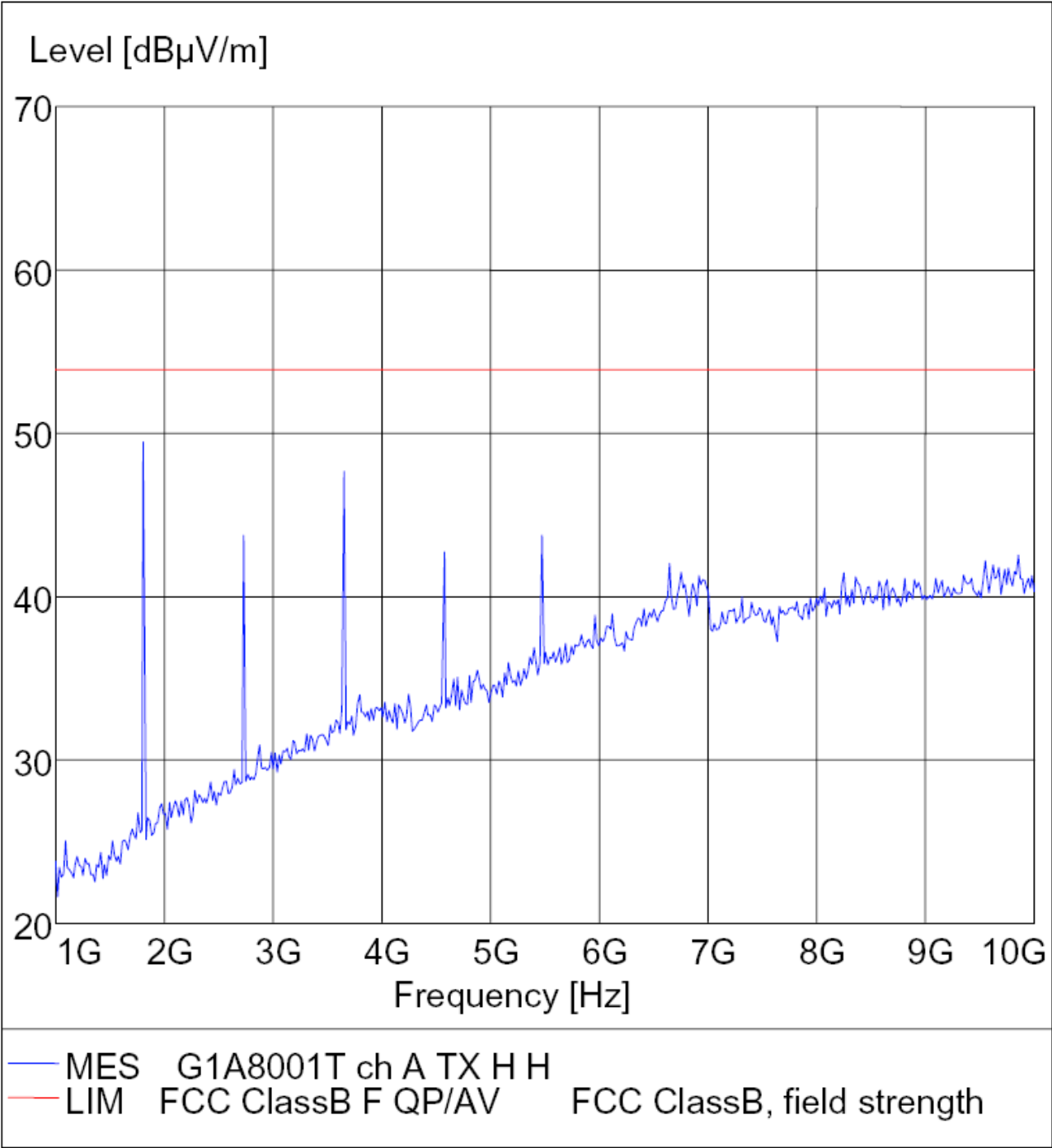
EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
Manufacturer: Golden Sun Solar Technic Co., Ltd.  
Operating Condition: TX channel A  
Test Site: ATC EMC Lab.SAC  
Operator: Andy  
Test Specification: Vertical  
Comment : AC 120V/50Hz  
:



Radiated Disturbance

FCC Part 15

EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
Manufacturer: Golden Sun Solar Technic Co., Ltd.  
Operating Condition: TX channel A  
Test Site: ATC EMC Lab.SAC  
Operator: Andy  
Test Specification: Horizontal  
Comment : AC 120V/60Hz  
:

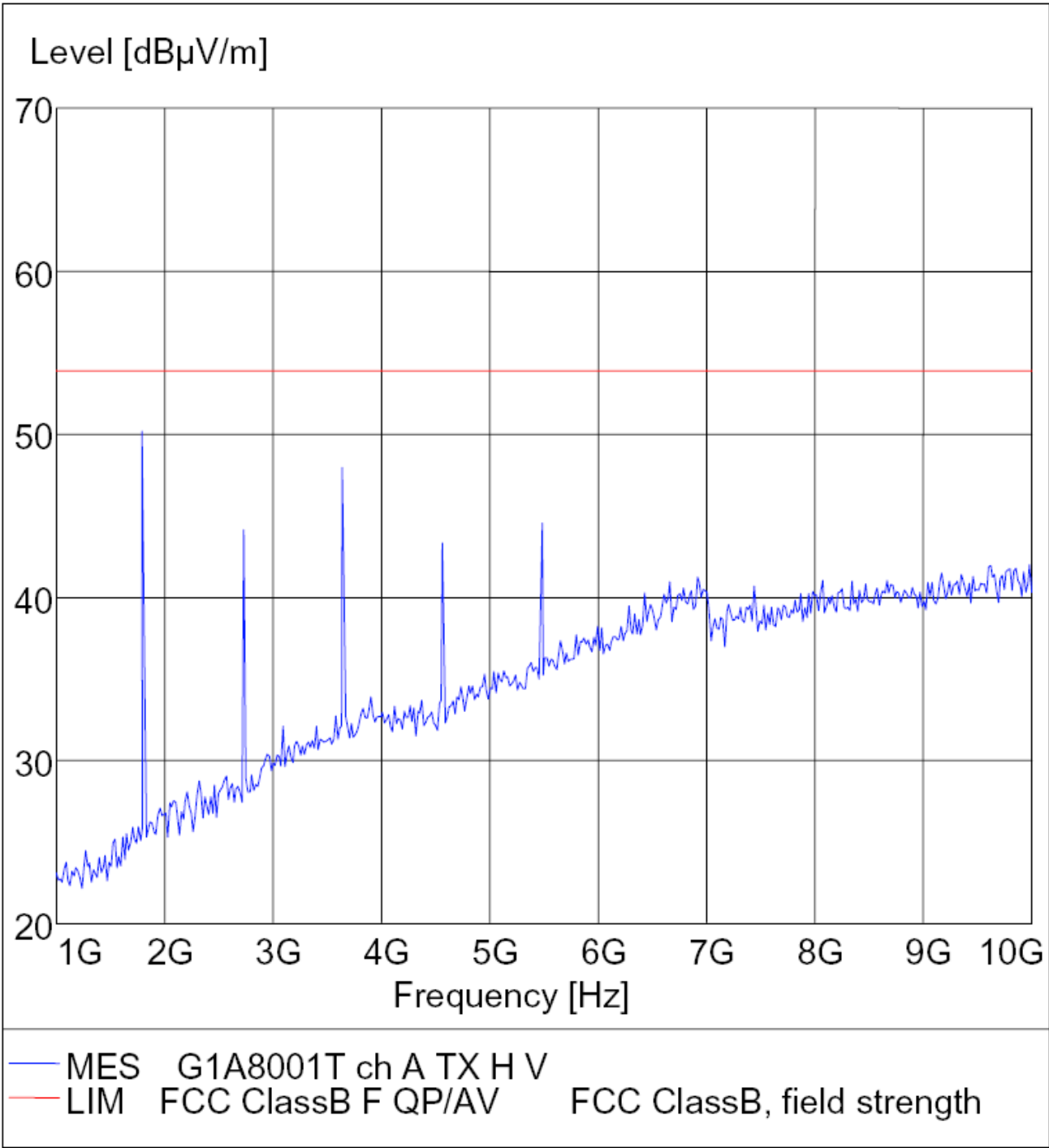




Radiated Disturbance

FCC Part 15

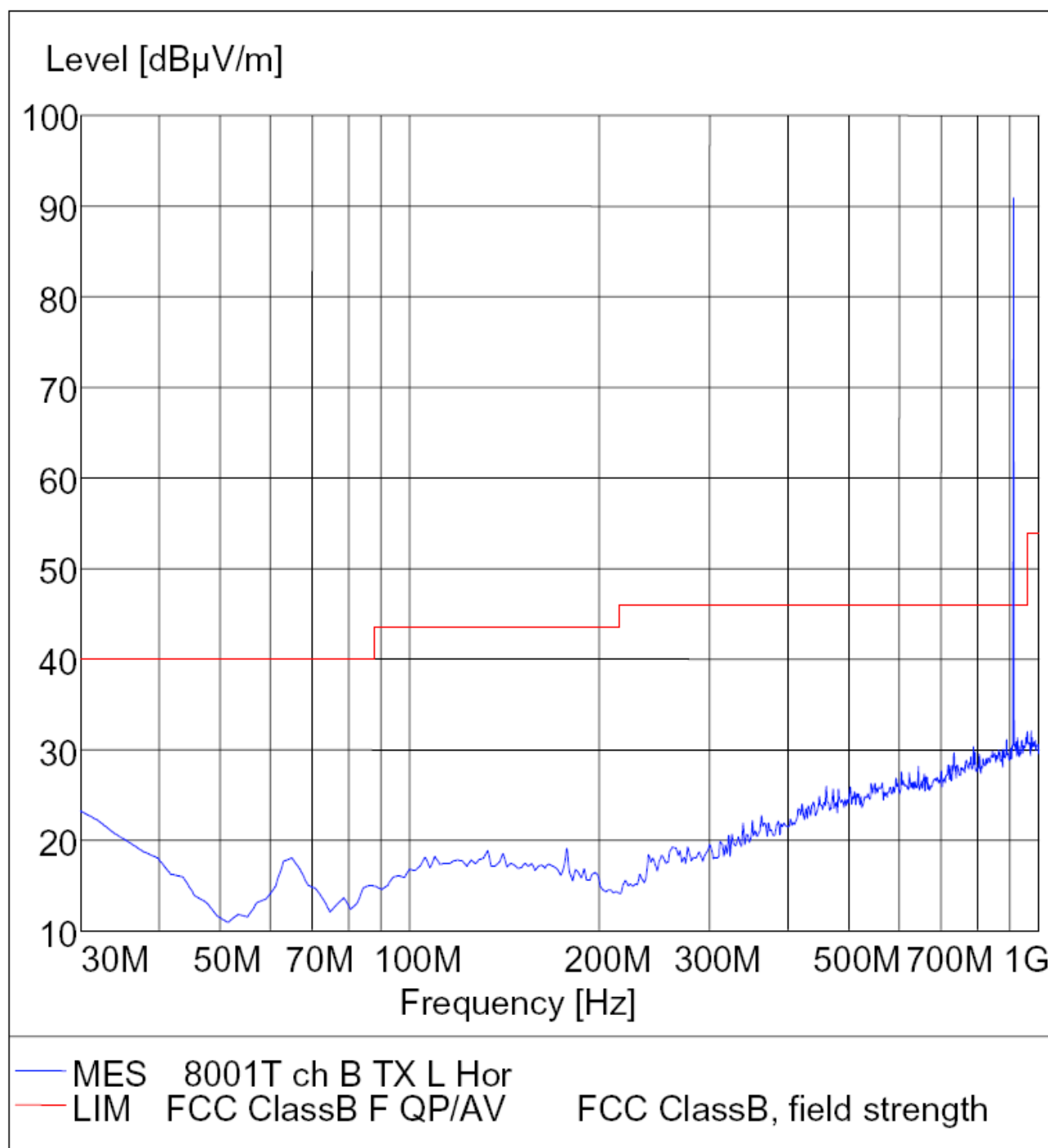
EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
Manufacturer: Golden Sun Solar Technic Co., Ltd.  
Operating Condition: TX channel A  
Test Site: ATC EMC Lab.SAC  
Operator: Andy  
Test Specification: Vertical  
Comment : AC 120V/50Hz  
:



## Radiated Disturbance

## FCC Part 15

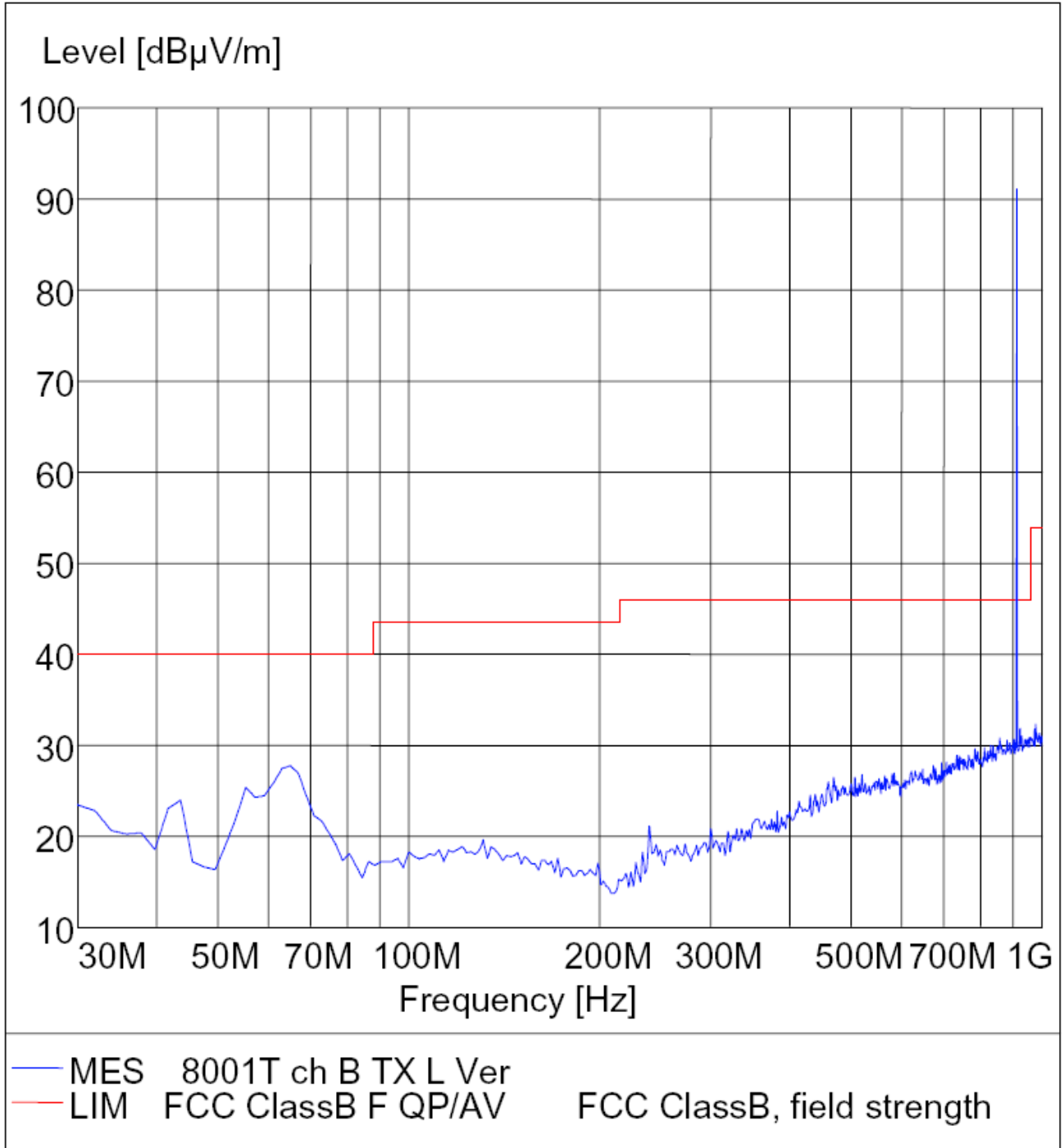
EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
 Manufacturer: Golden Sun Solar Technic Co., Ltd.  
 Operating Condition: TX channel B  
 Test Site: ATC EMC Lab.SAC  
 Operator: Andy  
 Test Specification: Horizontal  
 Comment : AC 120V/50Hz  
 :



**Radiated Disturbance**

**FCC Part 15**

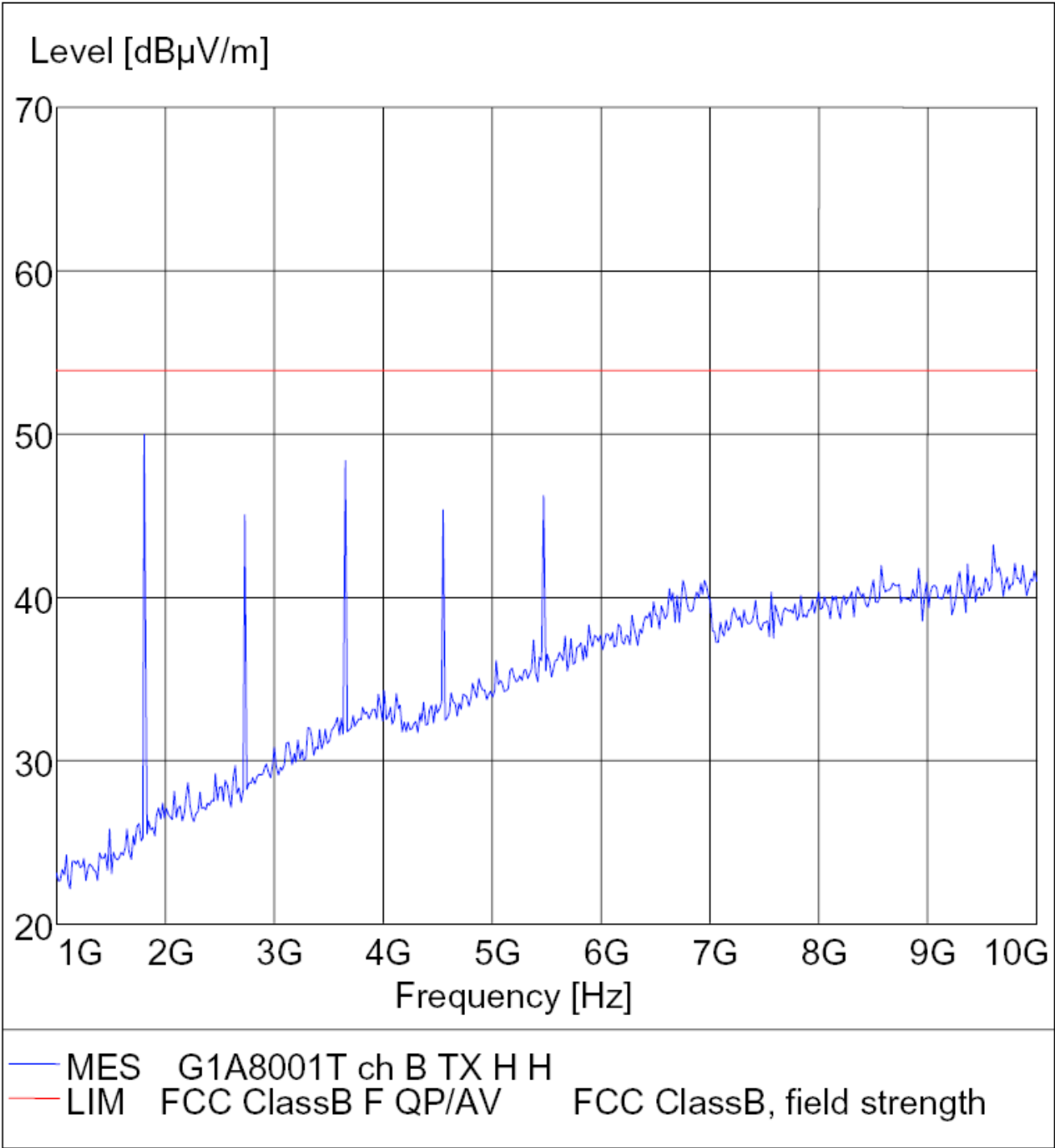
EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
 Manufacturer: Golden Sun Solar Technic Co., Ltd.  
 Operating Condition: TX channel B  
 Test Site: ATC EMC Lab.SAC  
 Operator: Andy  
 Test Specification: Vertical  
 Comment : AC 120V/50Hz  
 :



Radiated Disturbance

FCC Part 15

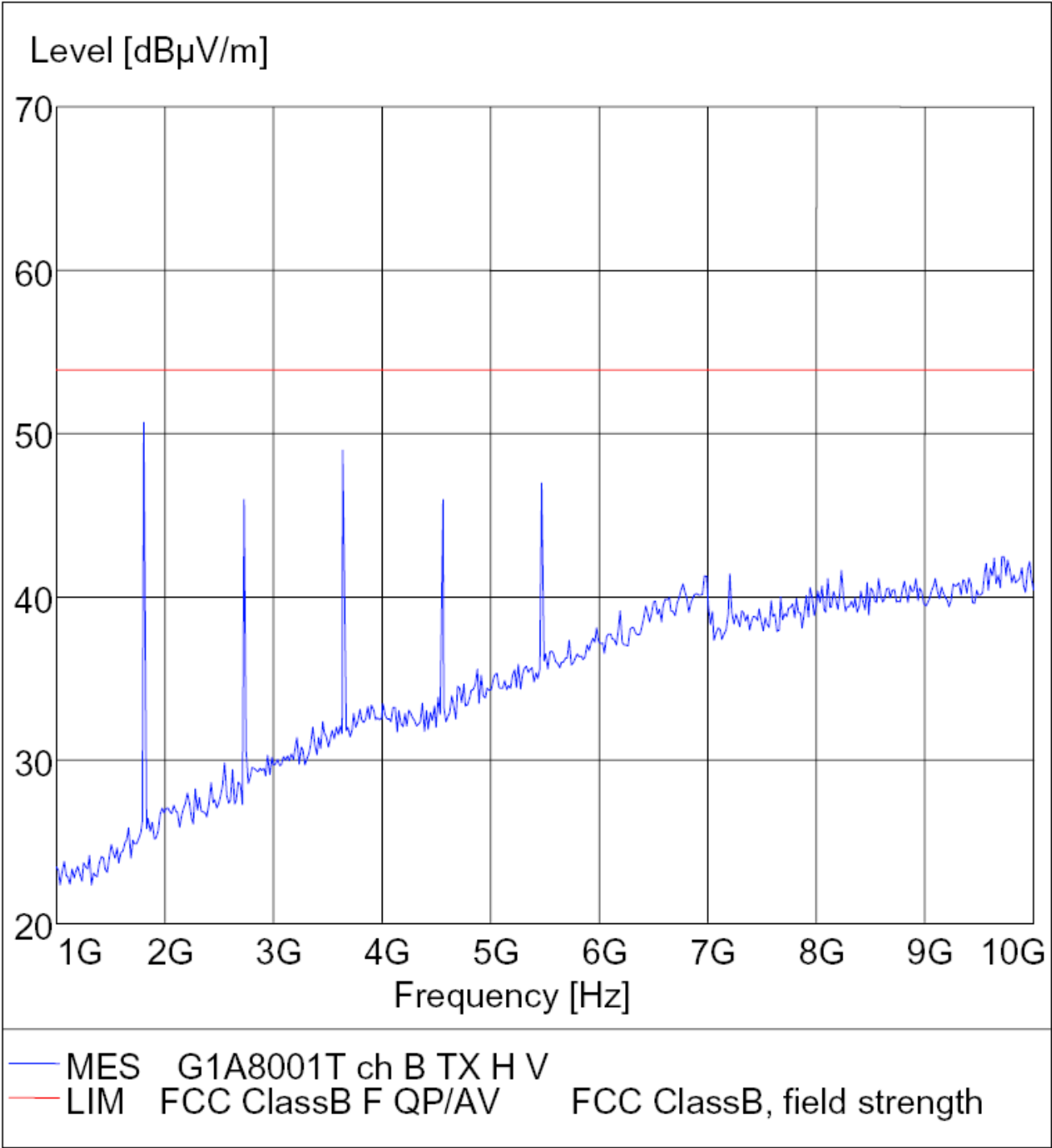
EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
Manufacturer: Golden Sun Solar Technic Co., Ltd.  
Operating Condition: TX channel B  
Test Site: ATC EMC Lab.SAC  
Operator: Andy  
Test Specification: Horizontal  
Comment : AC 120V/50Hz  
:



Radiated Disturbance

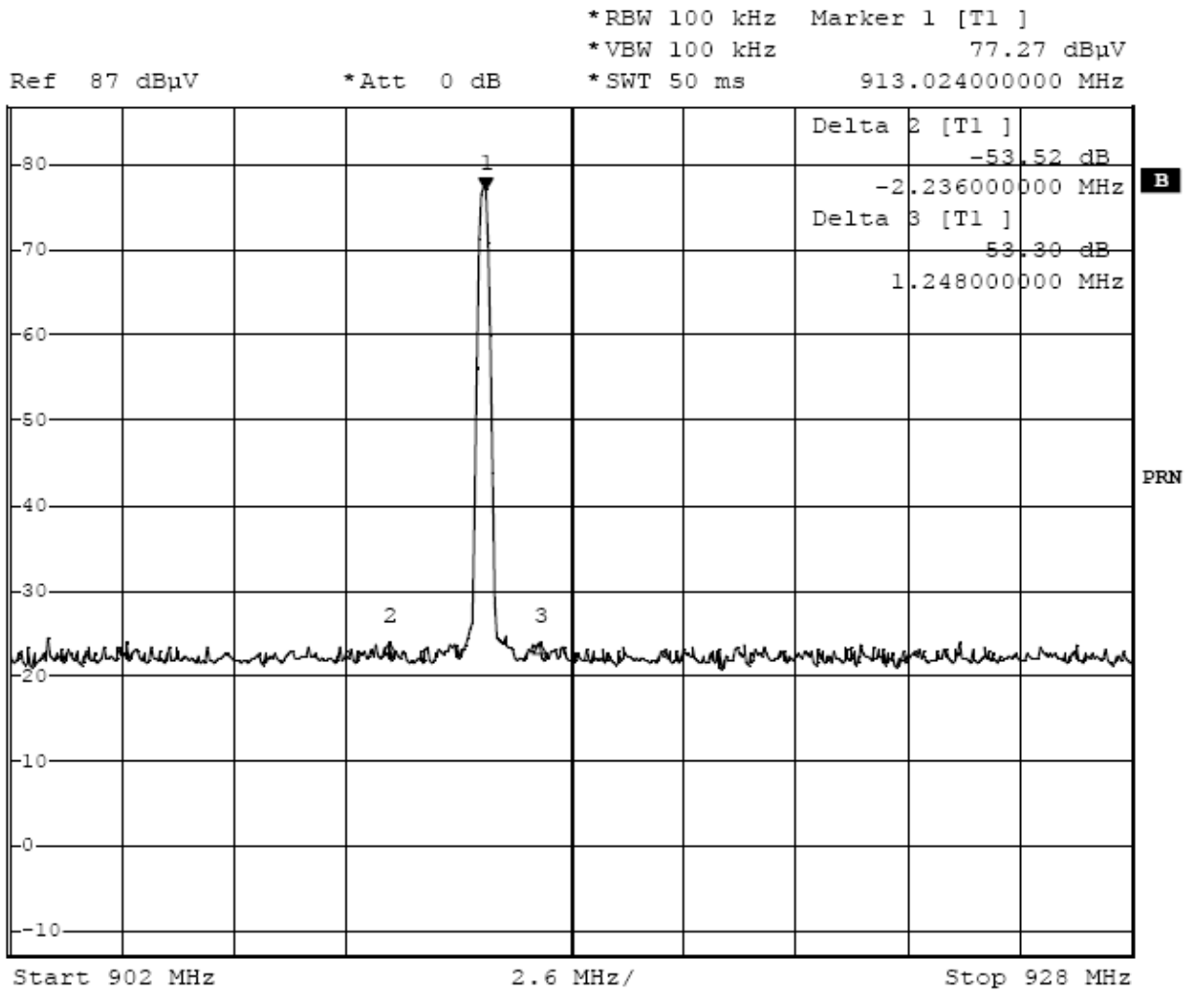
FCC Part 15

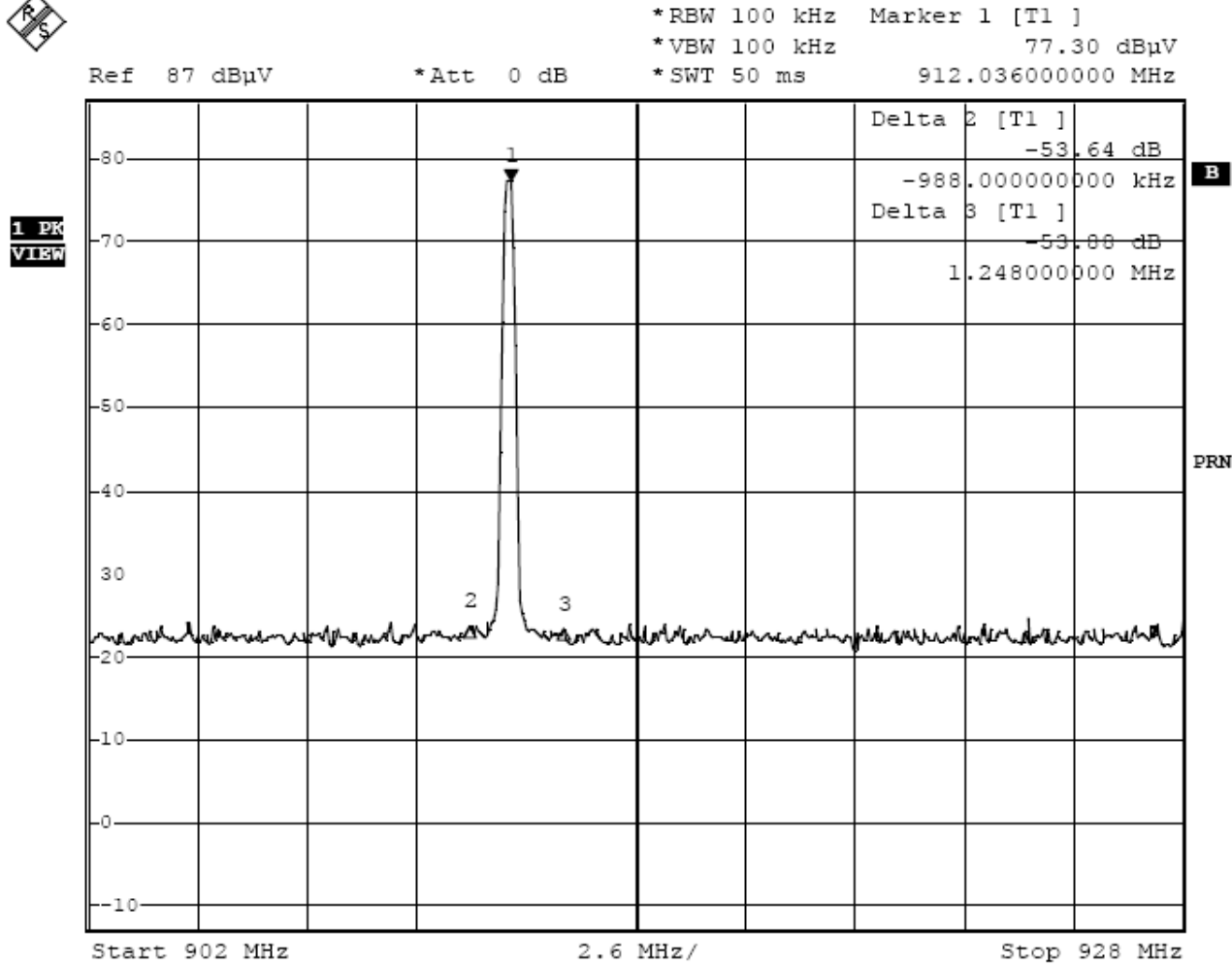
EUT: Solar Wireless Speaker Transmitter M/N:G1A8001T  
Manufacturer: Golden Sun Solar Technic Co., Ltd.  
Operating Condition: TX channel B  
Test Site: ATC EMC Lab.SAC  
Operator: Andy  
Test Specification: Vertical  
Comment : AC 120V/50Hz  
:

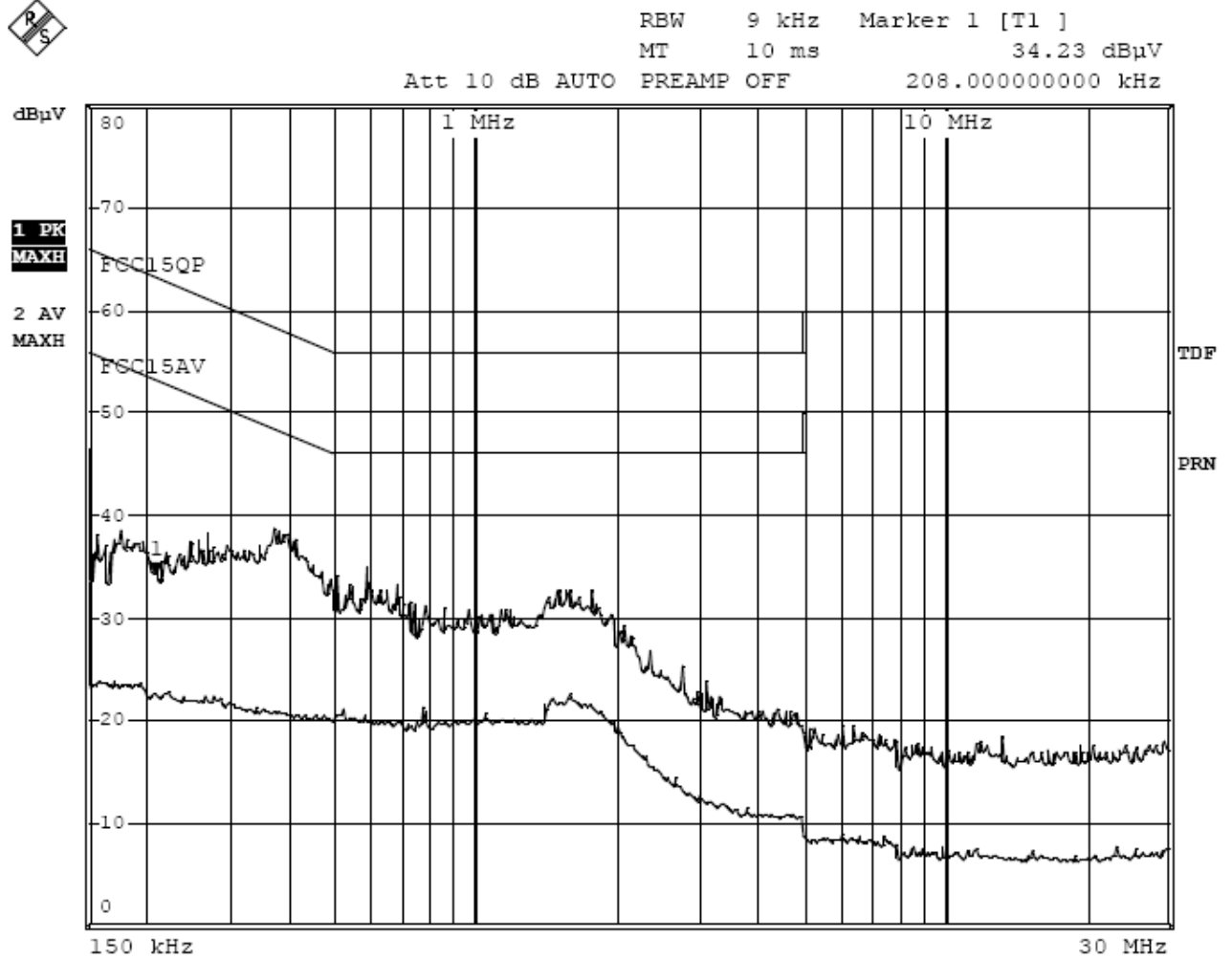




1 PK  
VIEW

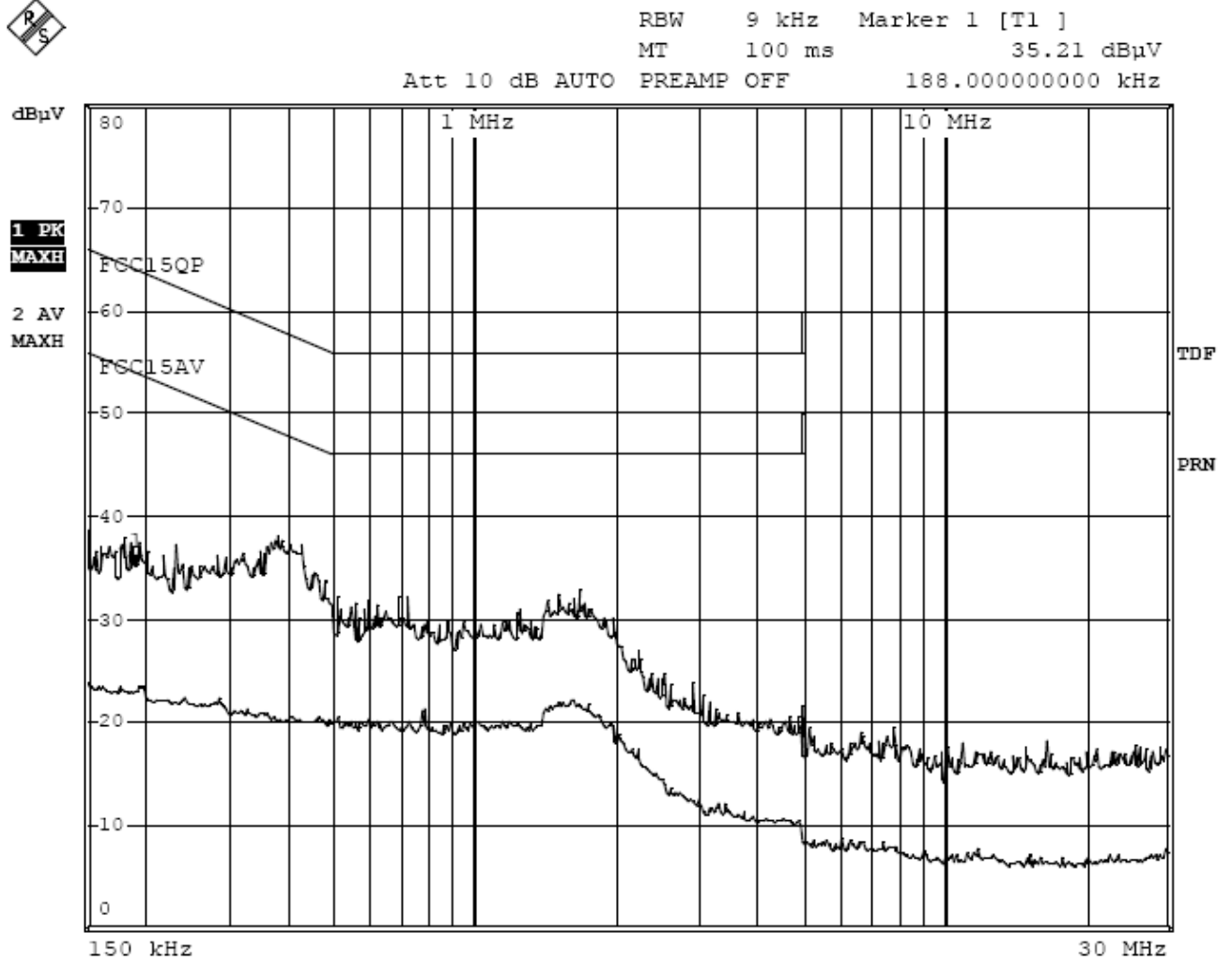






Comment B: Manuf:Golden Sun Solar Technic EUT:Solar Wireless speaker M/  
 N:G1A8001T Memo:TX Power:Va 120V/60Hz  
 Date: 16.DEC.2005 10:48:03





Comment B: Manuf:Golden Sun Solar Technic EUT:Solar Wireless speaker M/  
 N:G1A8001T Memo:TX Power:Vb 120V/60Hz  
 Date: 16.DEC.2005 10:45:44