



# **RADIO TEST REPORT**

**Test Report No. : 10762851S-A**

**Applicant** : Audio-Technica Corporation  
**Type of Equipment** : UHF SYNTHESIZED WIRELESS TRANSMITTER  
**Model No.** : ATW-T6001 S  
**Test regulation** : FCC part 74 Subpart H: 2014  
**FCC ID** : JFZT6001S  
**Test Result** : Complied

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2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by any agency of the Federal Government.
6. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.

**Date of test:** April 24 to May 11, 2015

**Representative test engineer:**

Kenichi Adachi  
Engineer  
Consumer Technology Division

**Approved by :**

Toyokaku Imamura  
Leader  
Consumer Technology Division



- ☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.  
☒ There is no testing item of "Non-accreditation".

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13-EM-F0429



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## **SECTION 1: Customer information**

Company Name : Audio-Technica Corporation  
Address : 2-46-1 Nishi-naruse, Machida, Tokyo 194-8666, Japan  
Telephone Number : +81-42-739-9148  
Facsimile Number : +81-42-739-9160  
Contact Person : Takashi Iwasa

## **SECTION 2: Equipment under test (E.U.T.)**

### **2.1 Identification of E.U.T.**

Type of Equipment : UHF SYNTHESIZED WIRELESS TRANSMITTER  
Model Number : ATW-T6001 S  
Serial Number : Refer to Section 4.2  
Rating : DC 3 V (battery)  
Country of Mass-production : Japan  
Condition of EUT : Production prototype  
(Not for Sale: This sample is equivalent to mass-produced items.)  
Receipt Date of Sample : April 20, 2015  
Modification of EUT : The test lab did not make the modification to the EUT supplied from the customer to have it pass the tests.

### **2.2 Product Description**

Model: ATW-T6001 S (referred to as the EUT in this report) is a UHF SYNTHESIZED WIRELESS TRANSMITTER.

#### General Specification

Clock frequency(ies) in the system : 26 MHz (VCTCXO), 24 MHz (MPU clock)

#### **Radio Specification**

Radio Type : Transmitter  
Frequency of Operation : 946.125 MHz to 949.875 MHz  
Modulation : Frequency modulation  
Emission designator : 62K5F3E  
Necessary Bandwidth :  $62.5 \text{ kHz} = 2M + 2D$   
where M: Maximum modulation frequency = 15 kHz  
D: Peak deviation = 16.25 kHz  
Channel spacing : 125 kHz  
Power Supply (RF part input) : DC 3.3 V  
Antenna name : SMA 948M YL  
Antenna Gain : 2.14 dBi max  
Antenna Connector Type : SMA  
Operating Temperature : +5 deg.C to +45 deg.C

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### **SECTION 3: Test specification, procedures and results**

#### **3.1 Test Specification**

Test Specification : FCC Part 74: 2014, final revised on August 15, 2014  
Title : EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

Test Specification : FCC Part 2: 2014, final revised on December 2, 2014  
Title : FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

#### **3.2 Procedures and results**

| No. | Item                                   | Test Procedure                                        | Specification                                        | Remarks   | Deviation | Worst margin                                                             | Results  |
|-----|----------------------------------------|-------------------------------------------------------|------------------------------------------------------|-----------|-----------|--------------------------------------------------------------------------|----------|
| 1   | RF Output Power                        | FCC section 2.1046, TIA-603-D 2.2.1                   | FCC section 74.861(e)(1), FCC part 2, section 2.1046 | Conducted | N/A       | -                                                                        | Complied |
| 2   | Modulation Characteristics             | FCC section 2.1047(a) and (b), TIA-603-D 2.2.3, 2.2.6 | FCC section 74.861(e)(3), FCC part 2, section 2.1047 | Conducted | N/A       | -                                                                        | Complied |
| 3   | Emission Bandwidth                     | FCC section 2.1049, TIA-603-D 2.2.11, 1.3.4.4         | FCC section 74.861(e)(5), FCC part 2, section 2.1049 | Conducted | N/A       | -                                                                        | Complied |
| 4   | Spurious Emission at Antenna Terminals | FCC section 2.1051, TIA-603-D 2.2.13                  | FCC section 74.861(e)(6), FCC part 2, section 2.1051 | Conducted | N/A       | -                                                                        | Complied |
| 5   | Field Strength of Spurious Emission    | FCC section 2.1053, TIA-603-D 2.2.12                  | FCC section 74.861(e)(6), FCC part 2, section 2.1053 | Radiated  | N/A       | <b>19.0 dB</b><br>(1899.749 MHz, Horizontal, Tx 949.875 MHz, High power) | Complied |
| 6   | Frequency Stability                    | FCC section 2.1055, TIA-603-D 2.2.2                   | FCC section 74.861(e)(4), FCC part 2, section 2.1055 | Conducted | N/A       | -                                                                        | Complied |

Note: UL Japan, Inc.'s EMI Work Test Procedure 13-EM-W0420.

\*1) These tests were also referred to "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards" (TIA-603-D: 2010)

\*2) This EUT does not have receiving part. Therefore Receiver Spurious Emission test was not performed.

#### **Supplied Voltage Information**

This EUT provides stable voltage (DC 3.3 V) constantly to RF Part regardless of input voltage.

#### **Antenna Information**

The EUT has an external antenna connector, but it is used by the professionals.

#### **3.3 Addition to standard**

No addition, exclusion nor deviation has been made from the standard.

#### **3.4 Confirmation**

UL Japan, Inc. hereby confirms that E.U.T., in the configuration tested, complies with the specifications FCC part 74.

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### 3.5 Uncertainty

#### EMI

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor k=2.

(EMI measurement)

| Item                                             | Frequency range  | No.1 SAC <sup>*1</sup> (±) | No.2 SAC(±) | No.3 SAC (±) |
|--------------------------------------------------|------------------|----------------------------|-------------|--------------|
| Radiated emission<br>(Measurement distance: 3 m) | 9 kHz - 30 MHz   | 3.7 dB                     | 3.5 dB      | 3.5 dB       |
|                                                  | 30 MHz - 300 MHz | 4.9 dB                     | 4.9 dB      | 4.7 dB       |
|                                                  | 300 MHz - 1 GHz  | 5.0 dB                     | 5.0 dB      | 4.8 dB       |
|                                                  | 1 GHz - 18 GHz   | 4.9 dB                     | 4.9 dB      | 4.9 dB       |

(Substitution measurement)

| Item                                                                      | Frequency range  | No.1 SAC <sup>*1</sup> (±) | No.2 SAC(±) | No.3 SAC (±) |
|---------------------------------------------------------------------------|------------------|----------------------------|-------------|--------------|
| Radiated emission<br>(Substitution measurement;3 m)<br>(EUT height 0.8 m) | 30 MHz - 300 MHz | 4.8 dB                     | 4.8 dB      | 4.8 dB       |
|                                                                           | 300 MHz - 1 GHz  | 3.7 dB                     | 3.7 dB      | 3.7 dB       |
|                                                                           | 1 GHz - 13 GHz   | 5.1 dB                     | 5.1 dB      | 5.1 dB       |

\*1: SAC=Semi-Anechoic Chamber

#### Radiated Emission Test

The data listed in this test report has enough margin, more than site margin.

Power Measurement uncertainty above 1 GHz for this test was: (±) 0.71 dB

Conducted emissions Measurement (below 1 GHz) uncertainty for this test was: (±) 1.5 dB

Conducted emissions, Power Density Measurement (1 GHz - 3 GHz) uncertainty for this test was: (±) 1.7 dB

Conducted emissions Measurement (3 GHz - 18 GHz) uncertainty for this test was: (±) 2.4 dB

Frequency Measurement uncertainty for this test was: (±)  $5.3 \times 10^{-6}$

Bandwidth Measurement uncertainty for this test was: (±) 0.66 %

### 3.6 Test Location

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JAB Accreditation No. : RTL02610

|                                                                | IC Registration No. | Width x Depth x Height (m) | Size of reference ground plane (m) / horizontal conducting plane | Maximum measurement distance |
|----------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------|------------------------------|
| <input checked="" type="checkbox"/> No.1 Semi-anechoic chamber | 2973D-1             | 20.6 x 11.3 x 7.65         | 20.6 x 11.3                                                      | 10 m                         |
| <input type="checkbox"/> No.2 Semi-anechoic chamber            | 2973D-2             | 20.6 x 11.3 x 7.65         | 20.6 x 11.3                                                      | 10 m                         |
| <input checked="" type="checkbox"/> No.3 Semi-anechoic chamber | 2973D-3             | 12.7 x 7.7 x 5.35          | 12.7 x 7.7                                                       | 5 m                          |
| <input type="checkbox"/> No.4 Semi-anechoic chamber            | -                   | 8.1 x 5.1 x 3.55           | 8.1 x 5.1                                                        | -                            |
| <input type="checkbox"/> No.1 Shielded room                    | -                   | 6.8 x 4.1 x 2.7            | 6.8 x 4.1                                                        | -                            |
| <input type="checkbox"/> No.2 Shielded room                    | -                   | 6.8 x 4.1 x 2.7            | 6.8 x 4.1                                                        | -                            |
| <input type="checkbox"/> No.3 Shielded room                    | -                   | 6.3 x 4.7 x 2.7            | 6.3 x 4.7                                                        | -                            |
| <input type="checkbox"/> No.4 Shielded room                    | -                   | 4.4 x 4.7 x 2.7            | 4.4 x 4.7                                                        | -                            |
| <input checked="" type="checkbox"/> No.5 Shielded room         | -                   | 7.8 x 6.4 x 2.7            | 7.8 x 6.4                                                        | -                            |
| <input type="checkbox"/> No.6 Shielded room                    | -                   | 7.8 x 6.4 x 2.7            | 7.8 x 6.4                                                        | -                            |
| <input type="checkbox"/> No.8 shielded room                    | -                   | 3.45 x 5.5 x 2.4           | 3.45 x 5.5                                                       | -                            |
| <input type="checkbox"/> No.1 Measurement room                 | -                   | 2.55 x 4.1 x 2.5           | -                                                                | -                            |

### 3.7 Data of EMI, Test instruments, Test set up

Refer to APPENDIX.

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## SECTION 4: Operation of E.U.T. during testing

### 4.1 Operating Modes

| Mode                                                                                                                                                                                                                                                                                                                                                                                            | Remarks         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Transmitting (Tx), High power                                                                                                                                                                                                                                                                                                                                                                   | less than 50 mW |
| Transmitting (Tx), Mid power                                                                                                                                                                                                                                                                                                                                                                    | less than 10 mW |
| Transmitting (Tx), Low power                                                                                                                                                                                                                                                                                                                                                                    | less than 2 mW  |
| <b>*Transmitting duty was 100% on all tests.</b>                                                                                                                                                                                                                                                                                                                                                |                 |
| *Power of the EUT was set by the software as follows;<br>Power settings: High (50 mW), Mid (10 mW), Low (2 mW)<br>Software: None<br>*This setting of software is the worst case.<br>Any conditions under the normal use do not exceed the condition of setting.<br>In addition, end users cannot change the settings of the output power of the product without High or Middle or Low settings. |                 |

\*The details of Operating mode(s)

| Test Item                                                                                                                                                                                            | Tested frequency                      | Power setting                           | AF input signal                              | Remarks |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|----------------------------------------------|---------|
| RF power output                                                                                                                                                                                      | 946.125MHz (Low)<br>949.875MHz (High) | High power<br>Middle power<br>Low power | None<br>(No modulation)                      |         |
| Modulation Characteristics                                                                                                                                                                           | 946.125MHz (Low)<br>949.875MHz (High) | High power<br>Low power                 | See data.                                    |         |
| Emission Bandwidth                                                                                                                                                                                   | 946.125MHz (Low)<br>949.875MHz (High) | High power<br>Low power                 | -0.2 dBV, 2500 Hz,<br>Sine wave *1)          |         |
| Spurious emissions at antenna terminals                                                                                                                                                              | 946.125MHz (Low)<br>949.875MHz (High) | High power<br>Low power                 | -0.2 dBV, 2500 Hz,<br>Sine wave *1)          |         |
| Field strength of spurious radiation                                                                                                                                                                 | 946.125MHz (Low)<br>949.875MHz (High) | High power<br>Low power                 | None,<br>-0.2 dBV, 2500 Hz,<br>Sine wave *2) |         |
| Frequency stability                                                                                                                                                                                  | 946.125MHz (Low)<br>949.875MHz (High) | High power                              | None<br>(No modulation)                      |         |
| *1) When modulated by a 2500 Hz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation.<br>*2) As for near band measurements, EUT was modulated same as note *1). |                                       |                                         |                                              |         |

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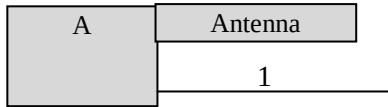
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#### 4.2. Configuration and peripherals



#### Description of EUT and Support equipment

| No. | Item                                 | Model number | Serial number | Manufacturer               | Remark |
|-----|--------------------------------------|--------------|---------------|----------------------------|--------|
| A   | UHF SYNTHESIZED WIRELESS TRANSMITTER | ATW-T6001 S  | US002         | Audio-Technica Corporation | EUT    |

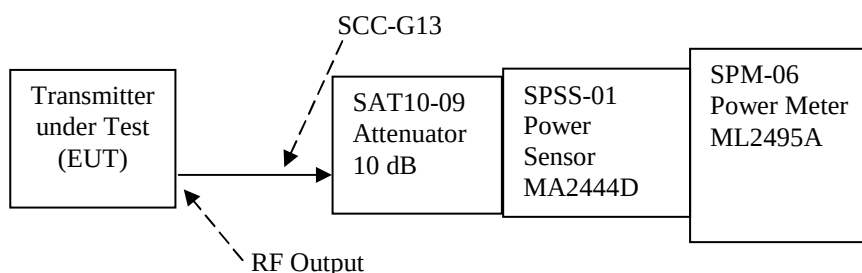
#### List of cables used

| No. | Name  | Length (m) | Shield   |           | Remarks |
|-----|-------|------------|----------|-----------|---------|
|     |       |            | Cable    | Connector |         |
| 1   | Audio | 0.5        | Shielded | Shielded  | -       |



## SECTION 5: RF Output power

- 5.1 Test Procedure : FCC part 2 section 2.1046, TIA-603-D section 2.2.1
- 5.2 Test data : APPENDIX 1
- 5.3 Test result : Pass
- 5.4 Test instruments : SCC-G13, SAT10-09, SPSS-01, SPM-06
- 5.5 Measurement Block Diagram of RF power output



RF Power Measurement (FCC part 2 section 2.1046, TIA-603-D section 2.2.1)

## SECTION 6: Modulation Characteristics

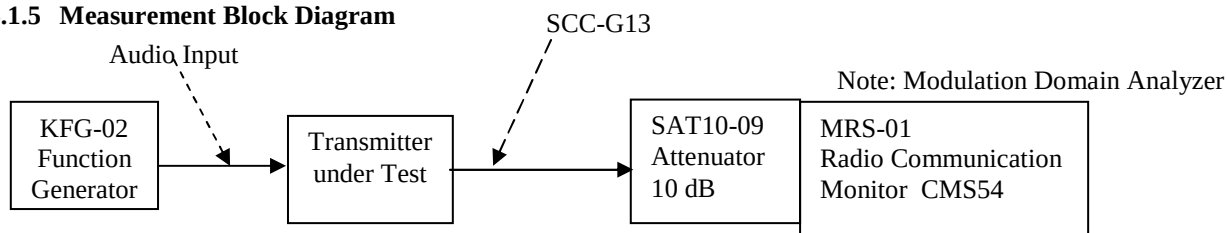
### 6.1 Transmitter Deviation for Input Level and Modulation frequency

- 6.1.1 Test Procedure : FCC part 2 section 2.1047, TIA-603-D section 2.2.3

- 1) The EUT was aligned for transmitter operation at full rated power.
- 2) When input Level from -63 dBV to 26 dBV is applied to audio via microphone jig input of EUT each modulation frequency 70 Hz, 100 Hz, 300 Hz, 500 Hz, 700 Hz, 1 kHz, 2.5 kHz, 5 kHz, 7 kHz, 10 kHz, 13 kHz, 15 kHz, frequency deviation is measured with MRS-01 (Model CMS54).

- 6.1.2 Test Data : APPENDIX 1
- 6.1.3 Test Result : Pass
- 6.1.4 Test Instrument : KFG-02, SCC-G13, SAT10-09, MRS-01

### 6.1.5 Measurement Block Diagram



Modulation Characteristics (FCC part 2 section 2.1047, TIA-603-D section 2.2.3)

## 6.2 Audio frequency response

**6.2.1 Test Procedure** : FCC part 2 section 2.1047, TIA-603-D section 2.2.6

The audio input level was measured when frequency deviation indicates 50 % modulation which measured with Radio communication Service Monitor.

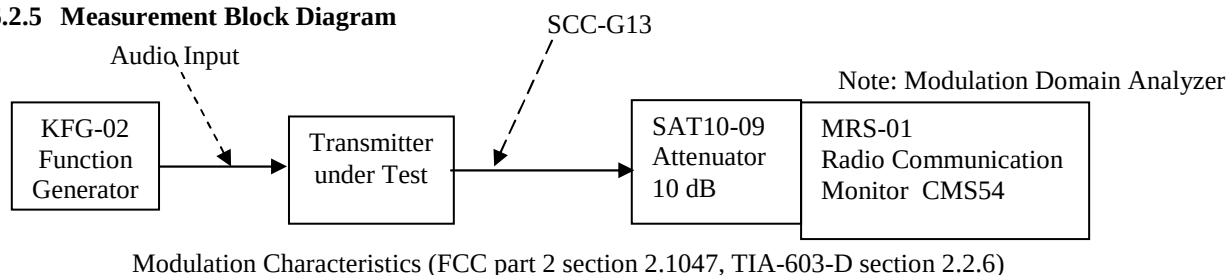
|                 |                                                                                          |
|-----------------|------------------------------------------------------------------------------------------|
| Audio frequency | 70 Hz, 100 Hz, 300 Hz, 500 Hz, 700 Hz, 1 kHz, 2 kHz, 3 kHz, 5 kHz, 7 kHz, 10 kHz, 15 kHz |
|-----------------|------------------------------------------------------------------------------------------|

**6.2.2 Test Data** : APPENDIX 1

**6.2.3 Test Result** : Pass

**6.2.4 Test Instrument** : KFG-02, SCC-G13, SAT10-09, MRS-01

### 6.2.5 Measurement Block Diagram



## 6.3 Transmitter Deviation for Input Frequency Response

**6.3.1 Test Procedure** : FCC part 2 section 2.1047, TIA-603-D section 2.2.6

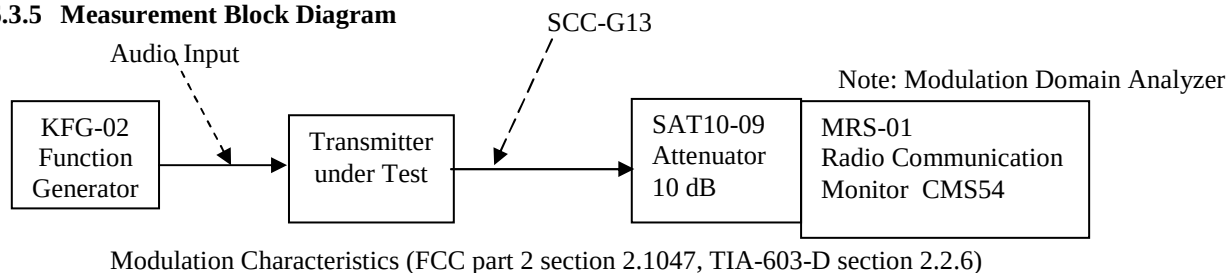
- 1) The EUT was aligned for transmitter operation at full rated power.
- 2) When frequency from 20 Hz to 18 kHz is applied to audio (microphone) input of EUT each input level -23dBV, -18 dBV and -13dBV, frequency deviation is measured with MRS-01 (Model CMS54).

**6.3.2 Test Data** : APPENDIX 1

**6.3.3 Test Result** : Pass

**6.3.4 Test Instrument** : KFG-02, SCC-G13, SAT10-09, MRS-01

### 6.3.5 Measurement Block Diagram



## **SECTION 7: Emission Bandwidth and Field strength of spurious radiation (emission masks)**

**7.1 Test Procedure** : FCC part 2 section 2.1049, TIA-603-D section 2.2.11

- 1) Set the reference level the spectrum analyzer to the unmodulation carrier level on the EUT
- 2) The Carrier is modulated by a 2.5 kHz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation. The input level shall be established at the frequency of maximum response of the audio modulation.

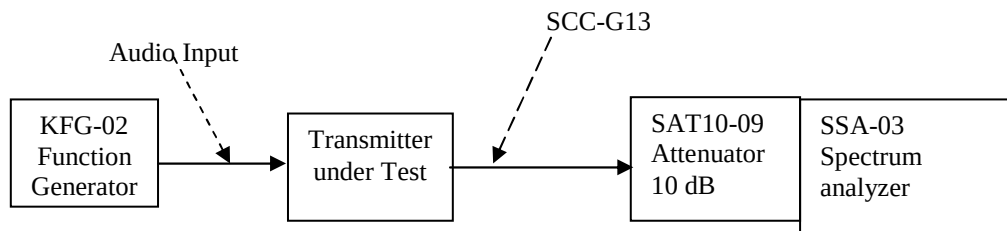
\*) The measurement was performed with Peak and Max Hold since the modulation method was frequency modulation.

**7.2 Test Data** : APPENDIX 1

**7.3 Test Result** : Pass

**7.4 Test Instrument** : KFG-02, SCC-G13, SAT10-09, SSA-03

**7.5 Measurement Block Diagram**



Emission Bandwidth (FCC part 2 section 2.1049, TIA-603-D section 2.2.11)

## **SECTION 8: Spurious emission at Antenna Terminals**

**8.1 Test Procedure** : FCC part 2 section 2.1051, TIA-603-D section 2.2.13

- 1) The EUT was aligned for transmitter operation at full rated power.
- 2) Set the reference level the spectrum analyzer to the unmodulation carrier level on the EUT. (Since spurious level was no difference between modulation mode and none-modulation mode)
- 3) Output of EUT was connected with spectrum analyzer through attenuator 10 dB.

\*) In the frequency range below 30 MHz, RBW was narrowed to separate the noise contents.

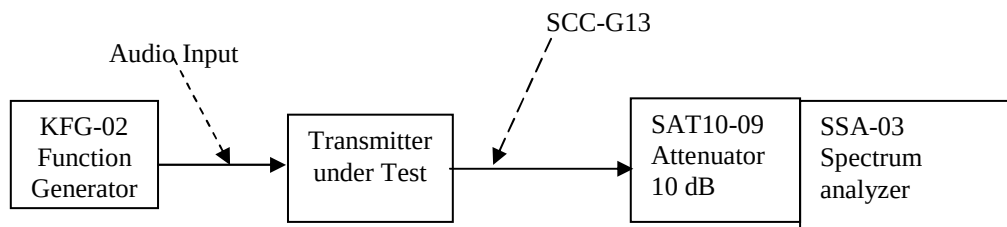
Then, wide-band noise near the limit was checked separately. Then, wide-band noise near the limit was checked separately and the noise was detected as shown in the chart, and therefore, Radiated Emission below 30MHz was performed. But, it was not detected noise below 30 MHz.

**8.2 Test Data** : APPENDIX 1

**8.3 Test result** : Pass

**8.4 Test Instrument** : KFG-02, SCC-G13, SAT10-09, SSA-03

**8.5 Measurement Block Diagram**



Spurious Emission at Antenna Terminals (FCC part 2 section 2.1051, TIA-603-D section 2.2.13)

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## SECTION 9: Field Strength of Spurious Emission (except emission masks)

### 9.1 Test Procedure : FCC part 2 section 2.1053, TIA-603-D section 2.2.12

(Above 30MHz)

- 1) EUT was placed on a platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The Radiated Electric Field Strength has been measured in semi anechoic chamber at a distance of 3 m. The measuring antenna height was varied between 1 m to 4 m and the turn table was rotated a full revolution in order to obtain the maximum value of the electric field strength. The measurements were performed for both vertical and horizontal antenna polarization. Spurious emissions were observed with enough time according to the test standard.
- 2) Exchanged the EUT to the Substitution Antenna, the measurement was set for the same height 0.8 m as the EUT. The frequency below 1 GHz of the Substitution Antenna was used the Half wave dipole Antenna, which was tuned the measured frequency in 1). The frequency above 1 GHz of the Substitution Antenna was used Horn Antenna. The Substitution Antenna was connected to the Signal Generator, and the polarized electromagnetic radiation of the Substitution Antenna was matched with the one of the measuring Antenna, which was set with the Signal Generator to the measured frequency in 1). Then, we set with the Output power (CW) of the Signal Generator where the measuring electromagnetic field strength is equal to the measured value in 1) by means of varying the measuring antenna height between 1 m to 4 m to obtain maximum receiving level. Its Output power of Signal Generator was recorded.
- 3) Effective radiated power was calculated by subtracting the cable loss and the attenuator loss connected between the Signal Generator and the Substitution Antenna from the Output power of the Signal Generator recorded in 2). For the usage of the Antenna (Horn Antenna) except for the Half wave dipole Antenna (2.15 dBi) for the Substitution Antenna, the Effective radiated power was calculated by compensating the finite difference in the Antenna gain of the Half wave dipole Antenna, and Substitution Antenna.

|                 |                         |                                    |
|-----------------|-------------------------|------------------------------------|
| Frequency       | Below 1 GHz             | Above 1 GHz                        |
| Instrument used | Test Receiver           | Spectrum Analyzer                  |
| IF Bandwidth    | RMS Average: 120 kHz BW | RMS Average: RBW: 1 MHz/VBW: 3 MHz |

(Below 30MHz)

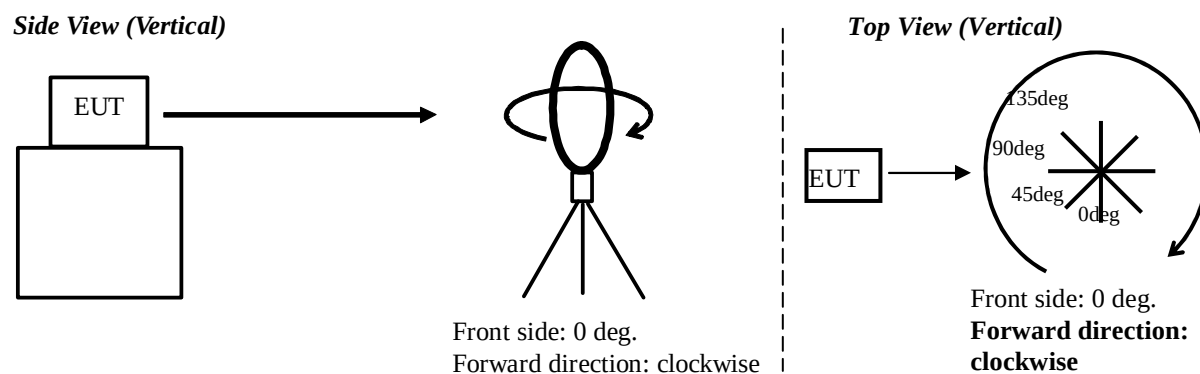
EUT was placed on a platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The Radiated Electric Field Strength has been measured in semi anechoic chamber at a distance of 3 m. The EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity. The measurements were performed for vertical polarization (antenna angle: 0deg.to 360deg.) and horizontal polarization. Drawing of the antenna direction is shown in Figure 7.

|                 |                        |                       |
|-----------------|------------------------|-----------------------|
| Frequency       | Below 150 kHz          | 150 kHz - 30 MHz      |
| Instrument used | Test Receiver          | Test Receiver         |
| IF Bandwidth    | RMS Average: 200 Hz BW | RMS Average: 9 kHz BW |

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

Measurement range : 9 kHz - 10 GHz  
Test data : APPENDIX  
Test result : Pass

**Figure 7: Direction of the Loop Antenna**



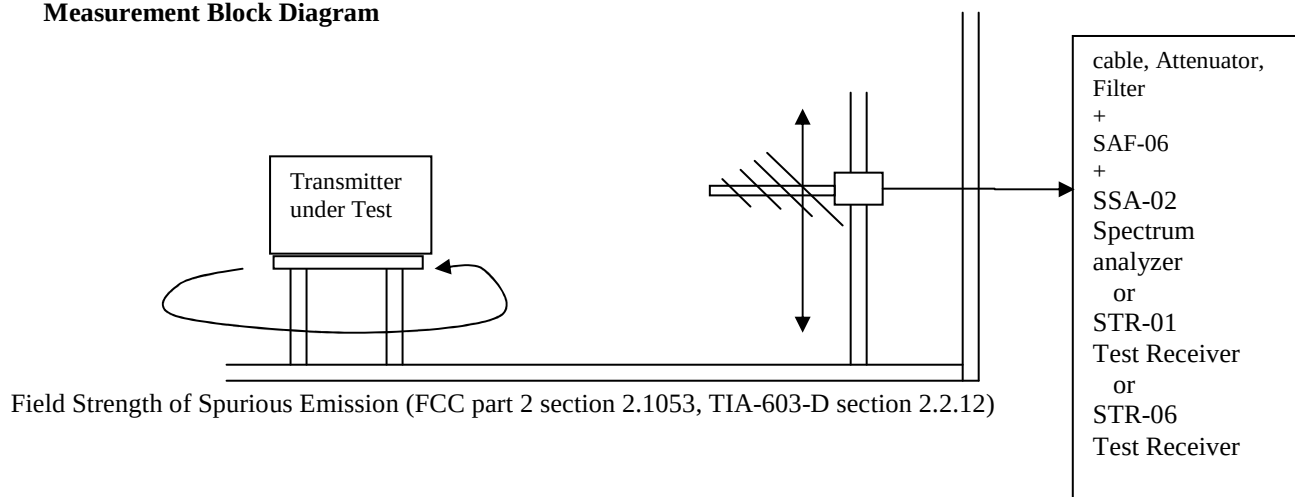
**9.2 Test Data** : APPENDIX 1

**9.3 Test Result** : Pass  
\* Range of below 30MHz was no-detect signal or noise.

**9.4 Test Instrument :**

[9k-30MHz]: SAEC-03, SLP-02, SAT6-08, SCC-C1/C2/C3/C4/C5/C10/SRSE-03, SAF-03, STR-06  
[30M-1GHz]: SAEC-01, SBA-01, KAT6-04, SCC-A1/A3/A5/A7/A8/A13/SRSE-01, SLA-01, SAT10-01, SAT3-09,  
SCC-A2/A4/A6/A7/A8/A13/SRSE-01, SAF-01, STR-01, SDA-07, SDA-08, SCC-04, SSG-02  
[1G-5GHz]: SAEC-03, SHA-03, SCC-G04, SFL-01, SAT20-01, SAF-06, SCC-G23, SSA-02, SHA-RS01, SCC-G16, SSG-02

**9.5 Measurement Block Diagram**



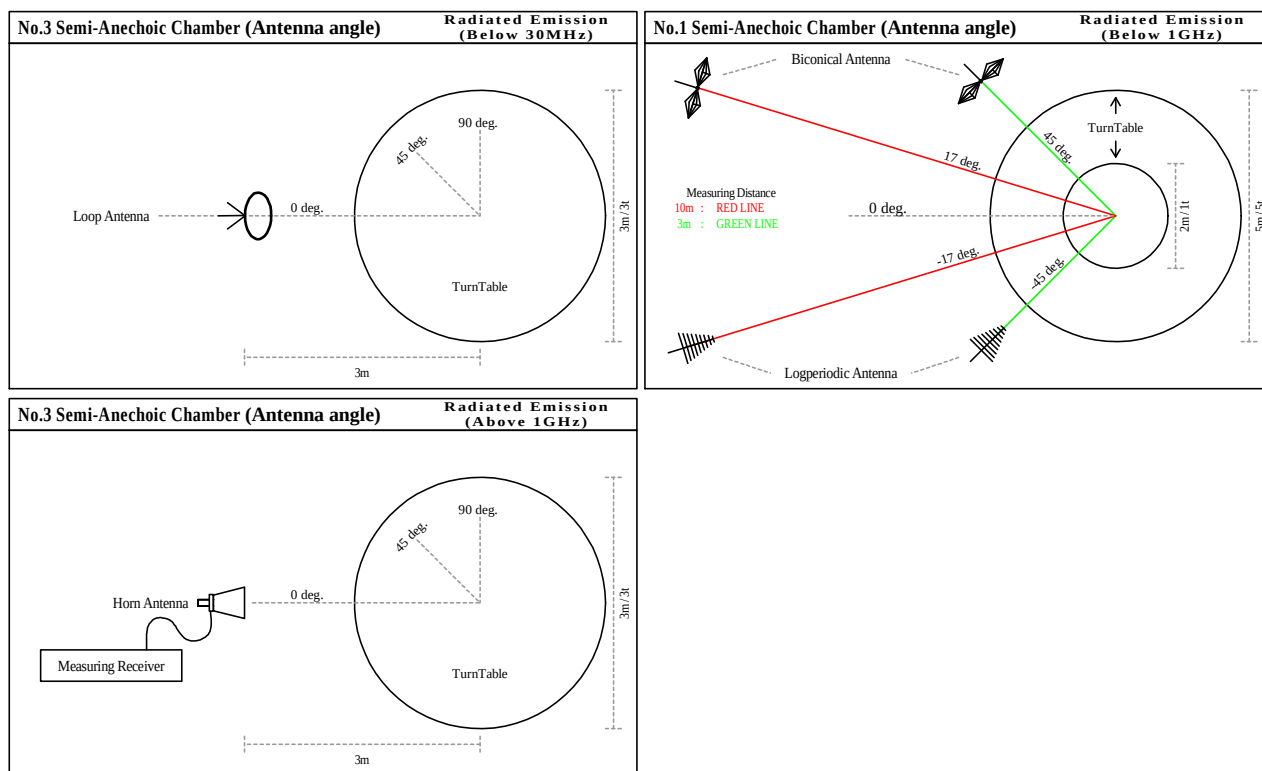
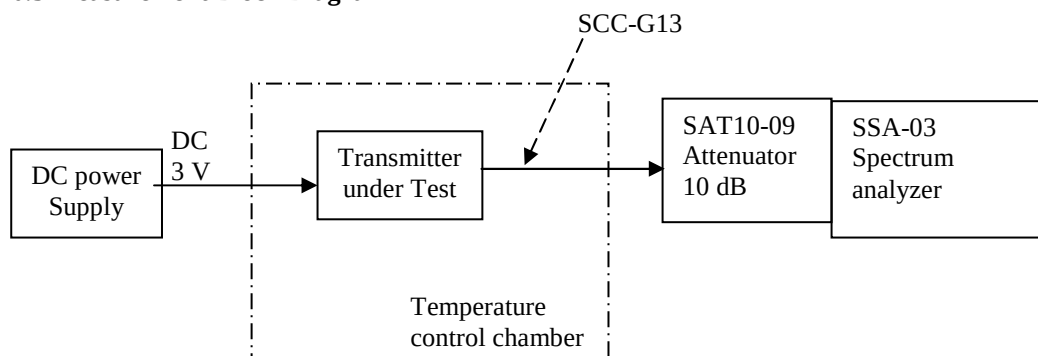


Figure 9. Antenna angle

## SECTION 10: Frequency Stability

- 10.1 Test Procedure** : FCC part 2 section 2.1055, TIA-603-D section 2.2.2  
\* Used the spectrum analyzer, because the detecting phase was not able to be done correctly
- 10.2 Test Data** : APPENDIX 1
- 10.3 Test Result** : Pass
- 10.4 Test Instrument** : SCH-01, SCC-G13, SAT10-09, SSA-03, STS-05

### 10.5 Measurement Block Diagram



Frequency Stability (FCC part 2 section 2.1055, TIA-603-D section 2.2.2)

## **Contents of APPENDIXES**

### **APPENDIX 1: Data of Radio tests**

RF output power

Modulation Characteristics

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Spurious emission at antenna terminal

Radiated Emission Test (Field Strength of Spurious Emission)

Field Strength of Spurious Emission (Emission masks)

Frequency stability

### **APPENDIX 2: Test instruments**

Test instruments

### **APPENDIX 3: Photographs of test setup**

Radiated emission

## APPENDIX 1: Data of Radio tests

### RF output power

UL Japan, Inc. Shonan EMC Lab.  
No.5 Shielded Room

|            |                                      |             |                                   |
|------------|--------------------------------------|-------------|-----------------------------------|
| Company    | Audio-Technica Corporation           | Regulation  | FCC part 74, section 74.861(d)(1) |
| Equipment  | UHF SYNTHESIZED WIRELESS TRANSMITTER | Date        | April 27, 2015                    |
| Model      | ATW-T6001 S                          | Temperature | 26 deg.C                          |
| Serial No. | US002                                | Humidity    | 46 %RH                            |
| Power      | DC 3 V                               | ENGINEER    | Kenichi Adachi                    |
| Mode       | Transmitting                         |             |                                   |

(High power) (\* P/M: Power Meter with power sensor, PK: Peak, AV: Average)

| Freq.<br>[MHz] | P/M (PK)<br>Reading *1)<br>[dBm] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Result     |       |           |       | Limit |         | Margin<br>[dB] |
|----------------|----------------------------------|------------------------------|-----------------------|------------------------|------------|-------|-----------|-------|-------|---------|----------------|
|                |                                  |                              |                       |                        | (Peak) *1) |       | (Average) |       | [dBm] | [mW]    |                |
| 946.125        | 6.23                             | 6.19                         | 0.83                  | 9.59                   | 16.65      | 46.24 | 16.61     | 45.81 | 30.00 | 1000.00 | 13.39          |
| 948.000 *1)    | 6.17                             | 6.13                         | 0.83                  | 9.59                   | 16.59      | 45.60 | 16.55     | 45.19 | 30.00 | 1000.00 | 13.45          |
| 949.875        | 6.11                             | 6.06                         | 0.84                  | 9.59                   | 16.54      | 45.08 | 16.49     | 44.57 | 30.00 | 1000.00 | 13.51          |

(Middle power) (\* P/M: Power Meter with power sensor, PK: Peak, AV: Average)

| Freq.<br>[MHz] | P/M (PK)<br>Reading *1)<br>[dBm] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Result     |      |           |      | Limit |         | Margin<br>[dB] |
|----------------|----------------------------------|------------------------------|-----------------------|------------------------|------------|------|-----------|------|-------|---------|----------------|
|                |                                  |                              |                       |                        | (Peak) *1) |      | (Average) |      | [dBm] | [mW]    |                |
| 946.125        | -0.68                            | -0.74                        | 0.83                  | 9.59                   | 9.74       | 9.42 | 9.68      | 9.29 | 30.00 | 1000.00 | 20.32          |
| 948.000 *1)    | -0.74                            | -0.82                        | 0.83                  | 9.59                   | 9.68       | 9.29 | 9.60      | 9.12 | 30.00 | 1000.00 | 20.40          |
| 949.875        | -0.82                            | -0.90                        | 0.84                  | 9.59                   | 9.61       | 9.14 | 9.53      | 8.97 | 30.00 | 1000.00 | 20.47          |

(Low power) (\* P/M: Power Meter with power sensor, PK: Peak, AV: Average)

| Freq.<br>[MHz] | P/M (PK)<br>Reading *1)<br>[dBm] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Result     |      |           |      | Limit |         | Margin<br>[dB] |
|----------------|----------------------------------|------------------------------|-----------------------|------------------------|------------|------|-----------|------|-------|---------|----------------|
|                |                                  |                              |                       |                        | (Peak) *1) |      | (Average) |      | [dBm] | [mW]    |                |
| 946.125        | -7.36                            | -7.52                        | 0.83                  | 9.59                   | 3.06       | 2.02 | 2.90      | 1.95 | 30.00 | 1000.00 | 27.10          |
| 948.000 *1)    | -7.43                            | -7.60                        | 0.83                  | 9.59                   | 2.99       | 1.99 | 2.82      | 1.91 | 30.00 | 1000.00 | 27.18          |
| 949.875        | -7.51                            | -7.69                        | 0.84                  | 9.59                   | 2.92       | 1.96 | 2.74      | 1.88 | 30.00 | 1000.00 | 27.26          |

Sample calculation:

Result [dBm] = P/M Reading [dBm] + Cable Loss [dB] + Atten. Loss [dB]

\*1) Reference data.



Revised date : November 11, 2015

## Data of Modulation Characteristics

### (Deviation versus Audio input level and Audio Frequency)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION FCC part 74, Section 74.861(e)(3)

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

TEST DISTANCE -

MODEL ATW-T6001 S

DATE April 24, 2015

S/ N US002

TEMPERATURE 25 deg.C

POWER DC 3 V

HUMIDITY 49 %RH

MODE Transmitting

ENGINEER Kenichi Adachi

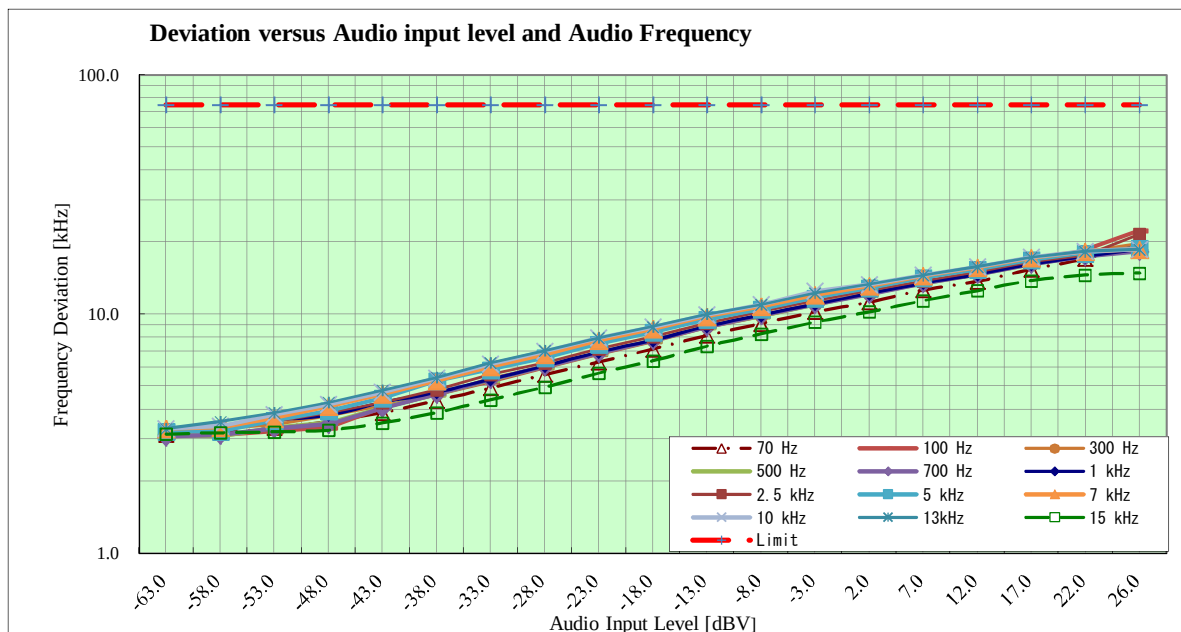
946.125 MHz High power

\* CMS54 setting : filter OFF

\* AF 2.5 kHz, Deviation 50 % (8.125 kHz) level:

-16.2 dBV

| AF Input<br>[dBV] | Deviation [kHz] (Peak) |        |        |        |        |       |         |       |       |        |       |        | Limit<br>[kHz] |
|-------------------|------------------------|--------|--------|--------|--------|-------|---------|-------|-------|--------|-------|--------|----------------|
|                   | 70 Hz                  | 100 Hz | 300 Hz | 500 Hz | 700 Hz | 1 kHz | 2.5 kHz | 5 kHz | 7 kHz | 10 kHz | 13kHz | 15 kHz |                |
| -63.0             | 3.13                   | 3.07   | 3.27   | 3.11   | 3.07   | 3.29  | 3.23    | 3.23  | 3.31  | 3.31   | 3.31  | 3.15   | 75.00          |
| -58.0             | 3.19                   | 3.11   | 3.31   | 3.07   | 3.11   | 3.39  | 3.31    | 3.23  | 3.35  | 3.39   | 3.55  | 3.19   | 75.00          |
| -53.0             | 3.35                   | 3.23   | 3.43   | 3.35   | 3.31   | 3.59  | 3.55    | 3.59  | 3.67  | 3.79   | 3.87  | 3.22   | 75.00          |
| -48.0             | 3.55                   | 3.35   | 3.75   | 3.51   | 3.47   | 3.79  | 3.87    | 3.95  | 4.11  | 4.19   | 4.27  | 3.27   | 75.00          |
| -43.0             | 3.87                   | 4.07   | 4.15   | 4.07   | 4.03   | 4.27  | 4.27    | 4.47  | 4.63  | 4.71   | 4.79  | 3.51   | 75.00          |
| -38.0             | 4.35                   | 4.63   | 4.63   | 4.63   | 4.63   | 4.71  | 4.83    | 5.27  | 5.27  | 5.39   | 5.43  | 3.87   | 75.00          |
| -33.0             | 4.91                   | 5.23   | 5.39   | 5.31   | 5.35   | 5.35  | 5.59    | 5.87  | 6.03  | 6.19   | 6.27  | 4.39   | 75.00          |
| -28.0             | 5.59                   | 5.99   | 6.07   | 6.03   | 6.03   | 6.07  | 6.27    | 6.59  | 6.79  | 6.99   | 7.03  | 4.95   | 75.00          |
| -23.0             | 6.31                   | 6.83   | 6.91   | 6.87   | 6.87   | 6.95  | 7.19    | 7.51  | 7.75  | 7.94   | 7.94  | 5.67   | 75.00          |
| -18.0             | 7.15                   | 7.71   | 7.75   | 7.75   | 7.75   | 7.78  | 8.06    | 8.42  | 8.66  | 8.82   | 8.86  | 6.39   | 75.00          |
| -13.0             | 8.14                   | 8.82   | 8.86   | 8.86   | 8.82   | 8.90  | 9.18    | 9.50  | 9.78  | 9.94   | 9.98  | 7.35   | 75.00          |
| -8.0              | 9.14                   | 9.82   | 9.82   | 9.82   | 9.90   | 9.90  | 10.22   | 10.50 | 10.78 | 10.94  | 10.98 | 8.26   | 75.00          |
| -3.0              | 10.22                  | 11.02  | 10.98  | 10.94  | 10.94  | 11.02 | 11.38   | 11.70 | 12.02 | 12.46  | 12.22 | 9.26   | 75.00          |
| 2.0               | 11.22                  | 12.14  | 12.14  | 12.14  | 12.10  | 12.18 | 12.54   | 12.85 | 13.13 | 13.29  | 13.33 | 10.22  | 75.00          |
| 7.0               | 12.62                  | 13.49  | 13.49  | 13.41  | 13.41  | 13.49 | 13.77   | 14.17 | 14.45 | 14.57  | 14.57 | 11.38  | 75.00          |
| 12.0              | 13.69                  | 14.73  | 14.73  | 14.65  | 14.65  | 14.65 | 15.01   | 15.37 | 15.69 | 15.81  | 15.81 | 12.54  | 75.00          |
| 17.0              | 15.41                  | 16.21  | 16.21  | 16.13  | 16.13  | 16.21 | 16.53   | 16.85 | 17.21 | 17.33  | 17.29 | 13.81  | 75.00          |
| 22.0              | 17.05                  | 18.64  | 18.24  | 17.53  | 17.45  | 17.41 | 17.61   | 18.00 | 18.24 | 18.32  | 18.24 | 14.57  | 75.00          |
| 26.0              | 19.84                  | 22.44  | 19.72  | 18.36  | 18.32  | 18.64 | 21.64   | 18.84 | 18.60 | 18.64  | 18.64 | 14.85  | 75.00          |



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Revised date : November 11, 2015

## Data of Modulation Characteristics

### (Deviation versus Audio input level and Audio Frequency)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION FCC part 74, Section 74.861(e)(3)

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

TEST DISTANCE -

MODEL ATW-T6001 S

DATE April 27, 2015

S/ N US002

TEMPERATURE 26 deg.C

POWER DC 3 V

HUMIDITY 46 %RH

MODE Transmitting

ENGINEER Kenichi Adachi

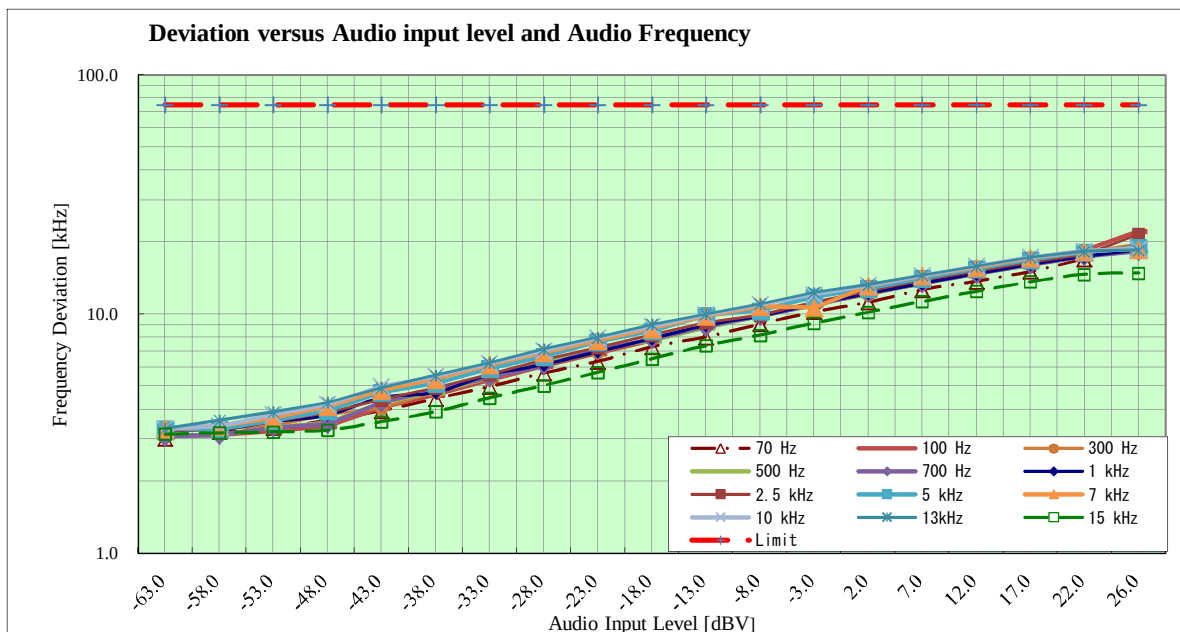
946.125 MHz Low power

\* CMS54 setting : filter OFF

\* AF 2.5 kHz, Deviation 50 % (8.125 kHz) level:

-16.2 dBV

| AF Input<br>[dBV] | Deviation [kHz] (Peak) |        |        |        |        |       |         |       |       |        |       |        | Limit<br>[kHz] |
|-------------------|------------------------|--------|--------|--------|--------|-------|---------|-------|-------|--------|-------|--------|----------------|
|                   | 70 Hz                  | 100 Hz | 300 Hz | 500 Hz | 700 Hz | 1 kHz | 2.5 kHz | 5 kHz | 7 kHz | 10 kHz | 13kHz | 15 kHz |                |
| -63.0             | 3.03                   | 3.07   | 3.27   | 3.07   | 3.07   | 3.29  | 3.23    | 3.31  | 3.31  | 3.31   | 3.31  | 3.15   | 75.00          |
| -58.0             | 3.23                   | 3.11   | 3.31   | 3.11   | 3.11   | 3.31  | 3.29    | 3.29  | 3.39  | 3.39   | 3.59  | 3.19   | 75.00          |
| -53.0             | 3.35                   | 3.23   | 3.39   | 3.35   | 3.35   | 3.55  | 3.55    | 3.59  | 3.67  | 3.79   | 3.89  | 3.22   | 75.00          |
| -48.0             | 3.59                   | 3.39   | 3.79   | 3.51   | 3.47   | 3.79  | 3.87    | 3.95  | 4.11  | 4.19   | 4.27  | 3.27   | 75.00          |
| -43.0             | 3.95                   | 4.07   | 4.03   | 4.27   | 4.27   | 4.47  | 4.39    | 4.71  | 4.79  | 4.97   | 4.91  | 3.55   | 75.00          |
| -38.0             | 4.43                   | 4.59   | 4.75   | 4.71   | 4.83   | 4.71  | 4.91    | 5.15  | 5.35  | 5.51   | 5.55  | 3.91   | 75.00          |
| -33.0             | 4.99                   | 5.31   | 5.35   | 5.43   | 5.43   | 5.59  | 5.59    | 5.91  | 6.15  | 6.23   | 6.27  | 4.47   | 75.00          |
| -28.0             | 5.67                   | 6.07   | 6.15   | 6.27   | 6.11   | 6.15  | 6.47    | 6.67  | 6.91  | 7.03   | 7.15  | 5.03   | 75.00          |
| -23.0             | 6.35                   | 6.87   | 6.91   | 7.15   | 7.07   | 6.99  | 7.27    | 7.67  | 7.75  | 7.94   | 7.98  | 5.71   | 75.00          |
| -18.0             | 7.31                   | 7.78   | 7.86   | 7.78   | 7.86   | 7.90  | 8.18    | 8.50  | 8.70  | 8.90   | 9.06  | 6.51   | 75.00          |
| -13.0             | 8.03                   | 8.82   | 8.86   | 8.78   | 8.86   | 8.98  | 9.22    | 9.86  | 9.82  | 9.94   | 9.98  | 7.39   | 75.00          |
| -8.0              | 9.10                   | 9.86   | 9.82   | 9.82   | 9.82   | 9.82  | 9.90    | 10.34 | 10.78 | 10.94  | 11.06 | 8.18   | 75.00          |
| -3.0              | 10.22                  | 10.94  | 10.98  | 10.94  | 10.86  | 10.98 | 11.22   | 11.78 | 10.62 | 12.06  | 12.34 | 9.18   | 75.00          |
| 2.0               | 11.22                  | 12.18  | 12.04  | 12.22  | 12.22  | 12.22 | 12.50   | 12.81 | 13.13 | 13.21  | 13.29 | 10.18  | 75.00          |
| 7.0               | 12.66                  | 13.41  | 13.41  | 13.45  | 13.41  | 13.45 | 13.81   | 14.13 | 14.49 | 14.49  | 14.53 | 11.30  | 75.00          |
| 12.0              | 13.73                  | 14.89  | 14.81  | 14.69  | 14.69  | 14.77 | 15.09   | 15.45 | 15.69 | 15.85  | 15.85 | 12.46  | 75.00          |
| 17.0              | 15.09                  | 16.17  | 16.13  | 16.09  | 16.05  | 16.17 | 16.49   | 16.85 | 17.21 | 17.29  | 17.25 | 13.65  | 75.00          |
| 22.0              | 17.01                  | 18.52  | 18.12  | 17.53  | 17.41  | 17.45 | 17.73   | 18.12 | 18.32 | 18.28  | 18.32 | 14.69  | 75.00          |
| 26.0              | 19.60                  | 22.24  | 19.60  | 18.52  | 18.32  | 18.56 | 21.60   | 18.92 | 18.68 | 18.68  | 18.56 | 14.85  | 75.00          |



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Revised date : November 11, 2015

## Data of Modulation Characteristics

### (Deviation versus Audio input level and Audio Frequency)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION FCC part 74, Section 74.861(e)(3)

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

TEST DISTANCE -

MODEL ATW-T6001 S

DATE April 27, 2015

S/ N US002

TEMPERATURE 26 deg.C

POWER DC 3 V

HUMIDITY 46 %RH

MODE Transmitting

ENGINEER Kenichi Adachi

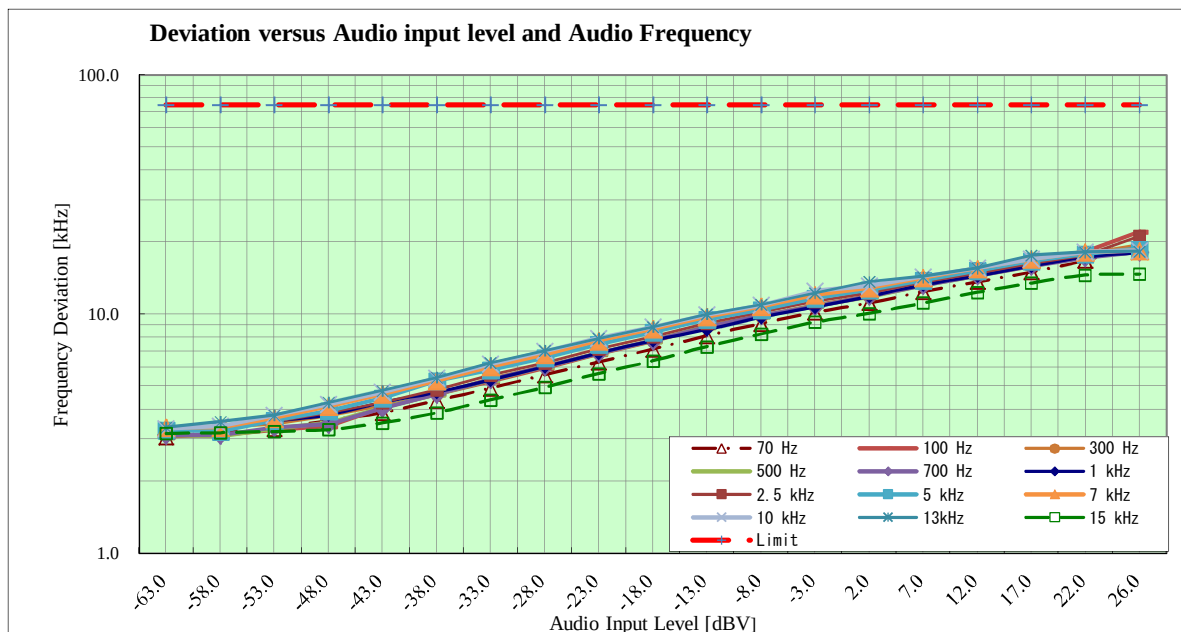
949.875 MHz High power

\* CMS54 setting : filter OFF

\* AF 2.5 kHz, Deviation 50 % (8.125 kHz) level:

-16.2 dBV

| AF Input<br>[dBV] | Deviation [kHz] (Peak) |              |        |        |        |       |         |       |       |        |       |        |       | Limit |
|-------------------|------------------------|--------------|--------|--------|--------|-------|---------|-------|-------|--------|-------|--------|-------|-------|
|                   | 70 Hz                  | 100 Hz       | 300 Hz | 500 Hz | 700 Hz | 1 kHz | 2.5 kHz | 5 kHz | 7 kHz | 10 kHz | 13kHz | 15 kHz | [kHz] |       |
| -63.0             | 3.07                   | 3.07         | 3.27   | 3.11   | 3.11   | 3.27  | 3.23    | 3.27  | 3.35  | 3.31   | 3.35  | 3.17   | 75.00 |       |
| -58.0             | 3.19                   | 3.11         | 3.35   | 3.07   | 3.11   | 3.35  | 3.31    | 3.23  | 3.35  | 3.39   | 3.55  | 3.19   | 75.00 |       |
| -53.0             | 3.31                   | 3.27         | 3.47   | 3.31   | 3.35   | 3.57  | 3.55    | 3.59  | 3.67  | 3.78   | 3.78  | 3.23   | 75.00 |       |
| -48.0             | 3.59                   | 3.39         | 3.75   | 3.51   | 3.47   | 3.79  | 3.87    | 3.95  | 4.12  | 4.19   | 4.27  | 3.29   | 75.00 |       |
| -43.0             | 3.87                   | 4.06         | 4.15   | 4.07   | 4.03   | 4.27  | 4.27    | 4.47  | 4.63  | 4.71   | 4.79  | 3.51   | 75.00 |       |
| -38.0             | 4.35                   | 4.62         | 4.62   | 4.63   | 4.63   | 4.71  | 4.82    | 5.26  | 5.26  | 5.39   | 5.42  | 3.87   | 75.00 |       |
| -33.0             | 4.91                   | 5.22         | 5.39   | 5.31   | 5.35   | 5.31  | 5.58    | 5.85  | 6.02  | 6.18   | 6.26  | 4.39   | 75.00 |       |
| -28.0             | 5.58                   | 5.97         | 6.07   | 6.02   | 6.03   | 6.03  | 6.25    | 6.58  | 6.78  | 6.98   | 7.02  | 4.94   | 75.00 |       |
| -23.0             | 6.31                   | 6.81         | 6.91   | 6.87   | 6.87   | 6.87  | 7.17    | 7.50  | 7.74  | 7.93   | 7.92  | 5.65   | 75.00 |       |
| -18.0             | 7.15                   | 7.70         | 7.74   | 7.74   | 7.74   | 7.75  | 8.05    | 8.41  | 8.65  | 8.81   | 8.85  | 6.38   | 75.00 |       |
| -13.0             | 8.12                   | 8.82         | 8.86   | 8.86   | 8.82   | 8.62  | 9.18    | 9.49  | 9.78  | 9.93   | 9.98  | 7.32   | 75.00 |       |
| -8.0              | 9.14                   | 9.81         | 9.82   | 9.82   | 9.90   | 9.70  | 10.18   | 10.45 | 10.78 | 10.92  | 10.94 | 8.26   | 75.00 |       |
| -3.0              | 10.18                  | 10.89        | 10.78  | 10.82  | 10.78  | 10.70 | 11.29   | 11.67 | 12.02 | 12.46  | 12.22 | 9.26   | 75.00 |       |
| 2.0               | 11.14                  | 11.86        | 11.86  | 11.82  | 11.86  | 11.86 | 12.26   | 12.62 | 12.89 | 13.09  | 13.65 | 10.06  | 75.00 |       |
| 7.0               | 12.42                  | 13.29        | 13.21  | 13.21  | 13.21  | 13.25 | 13.57   | 13.89 | 14.21 | 14.33  | 14.33 | 11.14  | 75.00 |       |
| 12.0              | 13.65                  | 14.53        | 14.45  | 14.45  | 14.45  | 14.45 | 14.85   | 15.21 | 15.53 | 15.61  | 15.61 | 12.34  | 75.00 |       |
| 17.0              | 15.01                  | 16.01        | 15.93  | 15.89  | 15.85  | 15.89 | 16.25   | 16.65 | 16.97 | 17.01  | 17.61 | 13.49  | 75.00 |       |
| 22.0              | 16.77                  | 18.28        | 17.92  | 17.37  | 17.17  | 17.29 | 17.61   | 17.84 | 18.12 | 18.12  | 18.12 | 14.57  | 75.00 |       |
| 26.0              | 19.60                  | <b>22.12</b> | 19.40  | 18.20  | 18.12  | 18.12 | 21.20   | 18.68 | 18.40 | 18.44  | 18.32 | 14.73  | 75.00 |       |



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Revised date : November 11, 2015

## Data of Modulation Characteristics

### (Deviation versus Audio input level and Audio Frequency)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION FCC part 74, Section 74.861(e)(3)

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

TEST DISTANCE -

MODEL ATW-T6001 S

DATE April 27, 2015

S/ N US002

TEMPERATURE 26 deg.C

POWER DC 3 V

HUMIDITY 46 %RH

MODE Transmitting

ENGINEER Kenichi Adachi

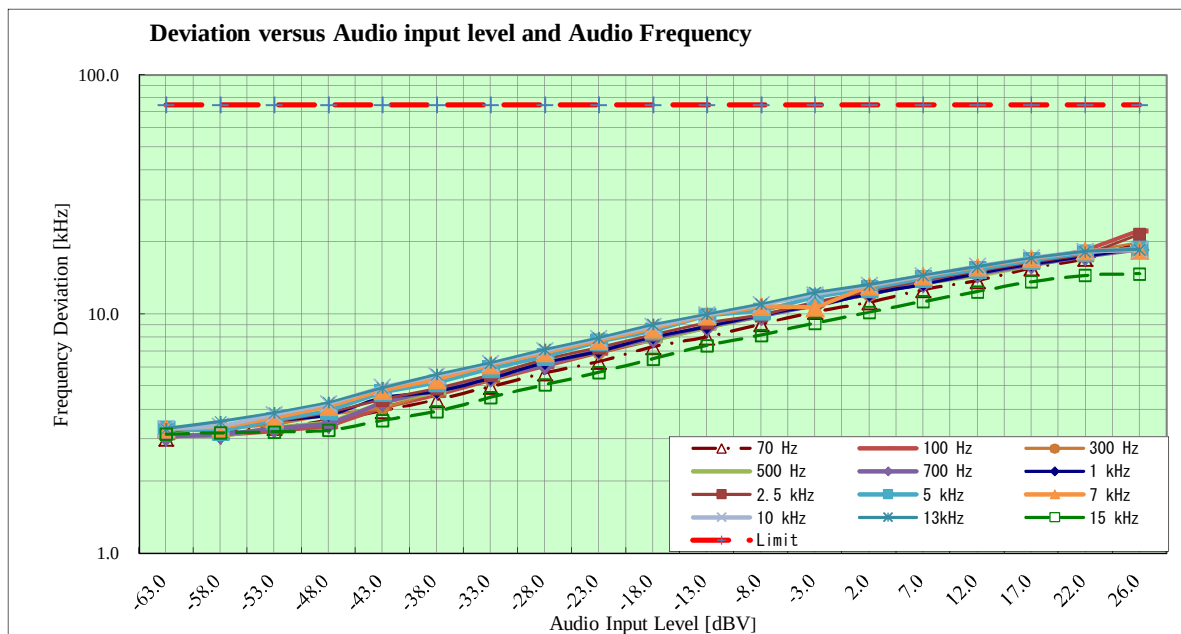
949.875 MHz Low power

\* CMS54 setting : filter OFF

\* AF 2.5 kHz, Deviation 50 % (8.125 kHz) level:

-16.2 dBV

| AF Input<br>[dBV] | Deviation [kHz] (Peak) |              |        |        |        |       |         |       |       |        |       |        |       | Limit |
|-------------------|------------------------|--------------|--------|--------|--------|-------|---------|-------|-------|--------|-------|--------|-------|-------|
|                   | 70 Hz                  | 100 Hz       | 300 Hz | 500 Hz | 700 Hz | 1 kHz | 2.5 kHz | 5 kHz | 7 kHz | 10 kHz | 13kHz | 15 kHz | [kHz] |       |
| -63.0             | 3.03                   | 3.07         | 3.27   | 3.11   | 3.07   | 3.29  | 3.23    | 3.31  | 3.31  | 3.31   | 3.31  | 3.15   | 75.00 |       |
| -58.0             | 3.23                   | 3.11         | 3.31   | 3.07   | 3.11   | 3.39  | 3.31    | 3.23  | 3.35  | 3.39   | 3.55  | 3.19   | 75.00 |       |
| -53.0             | 3.35                   | 3.23         | 3.43   | 3.35   | 3.31   | 3.59  | 3.55    | 3.59  | 3.67  | 3.79   | 3.87  | 3.22   | 75.00 |       |
| -48.0             | 3.59                   | 3.39         | 3.79   | 3.51   | 3.47   | 3.79  | 3.87    | 3.93  | 4.12  | 4.21   | 4.28  | 3.27   | 75.00 |       |
| -43.0             | 3.95                   | 4.07         | 4.03   | 4.27   | 4.27   | 4.47  | 4.39    | 4.72  | 4.79  | 4.95   | 4.92  | 3.59   | 75.00 |       |
| -38.0             | 4.39                   | 4.59         | 4.75   | 4.71   | 4.83   | 4.75  | 4.89    | 5.18  | 5.33  | 5.52   | 5.59  | 3.92   | 75.00 |       |
| -33.0             | 4.98                   | 5.31         | 5.34   | 5.43   | 5.43   | 5.39  | 5.55    | 5.91  | 6.15  | 6.23   | 6.27  | 4.49   | 75.00 |       |
| -28.0             | 5.67                   | 6.08         | 6.15   | 6.29   | 6.12   | 6.27  | 6.49    | 6.67  | 6.92  | 7.03   | 7.12  | 5.07   | 75.00 |       |
| -23.0             | 6.33                   | 6.89         | 6.91   | 7.15   | 7.08   | 6.99  | 7.27    | 7.67  | 7.77  | 7.92   | 7.97  | 5.71   | 75.00 |       |
| -18.0             | 7.31                   | 7.79         | 7.86   | 7.78   | 7.89   | 8.02  | 8.19    | 8.51  | 8.70  | 8.90   | 9.07  | 6.51   | 75.00 |       |
| -13.0             | 8.03                   | 8.78         | 8.82   | 8.79   | 8.86   | 8.86  | 9.22    | 9.84  | 9.85  | 9.92   | 9.97  | 7.39   | 75.00 |       |
| -8.0              | 9.10                   | 9.87         | 9.82   | 9.82   | 9.83   | 9.90  | 9.89    | 10.32 | 10.78 | 10.94  | 11.06 | 8.18   | 75.00 |       |
| -3.0              | 10.22                  | 10.94        | 10.98  | 10.94  | 10.86  | 10.86 | 11.23   | 11.79 | 10.62 | 12.06  | 12.34 | 9.18   | 75.00 |       |
| 2.0               | 11.22                  | 12.18        | 12.04  | 12.22  | 12.22  | 12.14 | 12.47   | 12.82 | 13.13 | 13.21  | 13.29 | 10.18  | 75.00 |       |
| 7.0               | 12.66                  | 13.41        | 13.41  | 13.45  | 13.41  | 13.33 | 13.81   | 14.13 | 14.49 | 14.49  | 14.53 | 11.30  | 75.00 |       |
| 12.0              | 13.81                  | 14.85        | 14.69  | 14.47  | 14.73  | 14.81 | 15.09   | 15.41 | 15.77 | 15.89  | 15.81 | 12.42  | 75.00 |       |
| 17.0              | 15.57                  | 16.53        | 16.33  | 16.01  | 16.09  | 16.21 | 16.45   | 16.81 | 17.13 | 17.19  | 17.21 | 13.65  | 75.00 |       |
| 22.0              | 17.05                  | 18.52        | 18.32  | 17.61  | 17.41  | 17.49 | 17.69   | 18.04 | 18.40 | 18.32  | 18.24 | 14.53  | 75.00 |       |
| 26.0              | 19.84                  | <b>22.44</b> | 19.92  | 18.80  | 18.60  | 18.92 | 21.56   | 18.80 | 18.52 | 18.52  | 18.64 | 14.77  | 75.00 |       |



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Revised date : November 11, 2015

## Data of Modulation Characteristics (Audio Frequency Response)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation  
EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER  
MODEL ATW-T6001 S  
S/ N US002  
POWER DC 3 V  
MODE Transmitting

TEST DISTANCE -  
DATE April 24, 2015  
TEMPERATURE 25 deg.C  
HUMIDITY 49 %RH  
ENGINEER Kenichi Adachi

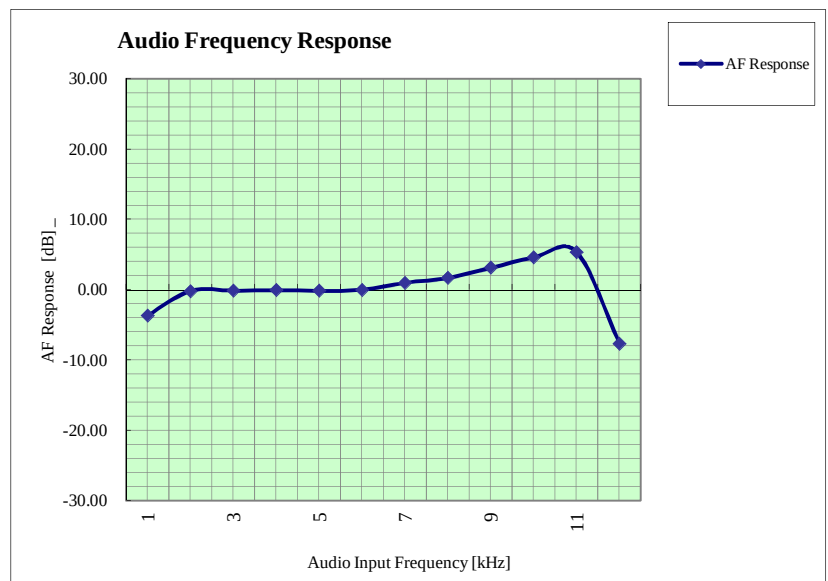
946.125 MHz, High power

\* CMS54 setting : filter OFF

| AF Freq. [Hz] | AF level [mV] | AF Response [dB] |
|---------------|---------------|------------------|
| 70            | 240.00        | -3.63            |
| 100           | 161.00        | -0.16            |
| 300           | 160.00        | -0.11            |
| 500           | 159.00        | -0.05            |
| 700           | 160.00        | -0.11            |
| 1000          | 158.00        | 0.00             |
| 2000          | 141.00        | 0.99             |
| 3000          | 130.00        | 1.69             |
| 5000          | 110.00        | 3.15             |
| 7000          | 93.00         | 4.60             |
| 10000         | 85.00         | 5.38             |
| 15000         | 380.00        | -7.62            |

Calculation formula:

$$\text{AF Response} = 20 \times \log (\text{AF Level of 1 kHz} / \text{AF Level})$$



\* The Audio input level was measured when frequency deviation indicates 50% modulation which measured with Radio communication service monitor.

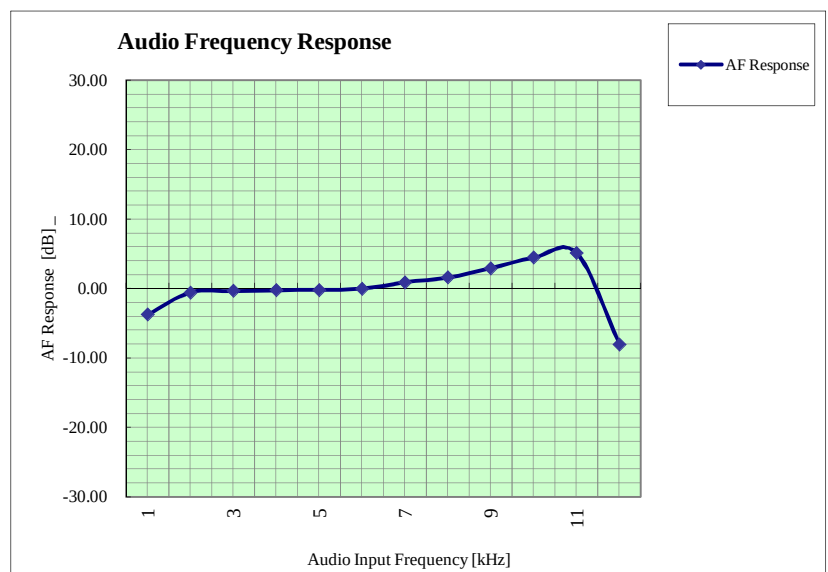
946.125 MHz, Low power

\* CMS54 setting : filter OFF

| AF Freq. [Hz] | AF level [mV] | AF Response [dB] |
|---------------|---------------|------------------|
| 70            | 244.00        | -3.72            |
| 100           | 169.00        | -0.53            |
| 300           | 165.00        | -0.32            |
| 500           | 163.00        | -0.22            |
| 700           | 162.00        | -0.16            |
| 1000          | 159.00        | 0.00             |
| 2000          | 143.00        | 0.92             |
| 3000          | 132.00        | 1.62             |
| 5000          | 113.00        | 2.97             |
| 7000          | 95.00         | 4.47             |
| 10000         | 88.00         | 5.14             |
| 15000         | 399.00        | -7.99            |

Calculation formula:

$$\text{AF Response} = 20 \times \log (\text{AF Level of 1 kHz} / \text{AF Level})$$



\* The Audio input level was measured when frequency deviation indicates 50% modulation which measured with Radio communication service monitor.

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Revised date : November 11, 2015

## Data of Modulation Characteristics (Audio Frequency Response)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation  
EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER  
MODEL ATW-T6001 S  
S/ N US002  
POWER DC 3 V  
MODE Transmitting

TEST DISTANCE -  
DATE April 27, 2015  
TEMPERATURE 26 deg.C  
HUMIDITY 46 %RH  
ENGINEER Kenichi Adachi

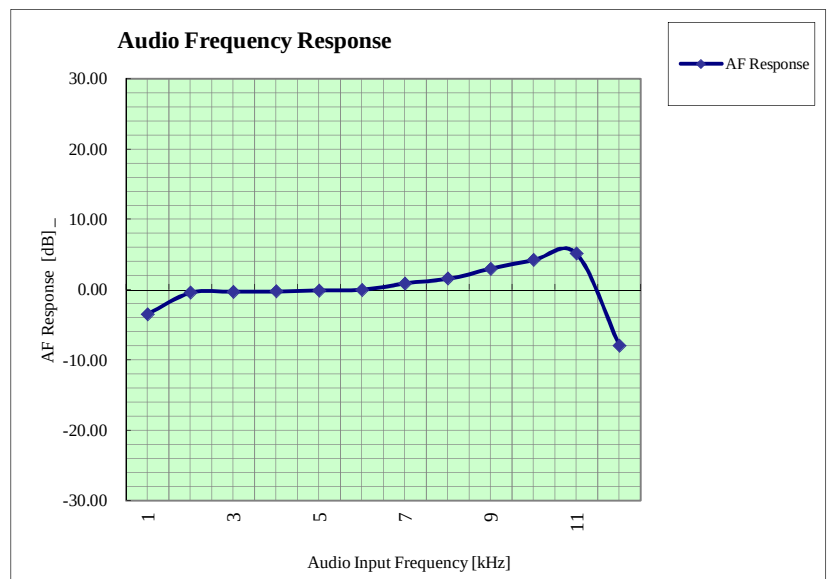
949.875 MHz, High power

\* CMS54 setting : filter OFF

| AF Freq. [Hz] | AF level [mV] | AF Response [dB] |
|---------------|---------------|------------------|
| 70            | 250.00        | -3.45            |
| 100           | 176.00        | -0.40            |
| 300           | 173.00        | -0.25            |
| 500           | 172.00        | -0.20            |
| 700           | 170.00        | -0.10            |
| 1000          | 168.00        | 0.00             |
| 2000          | 151.00        | 0.93             |
| 3000          | 140.00        | 1.58             |
| 5000          | 119.00        | 3.00             |
| 7000          | 103.00        | 4.25             |
| 10000         | 93.00         | 5.14             |
| 15000         | 420.00        | -7.96            |

Calculation formula:

$$\text{AF Response} = 20 \times \log (\text{AF Level of 1 kHz} / \text{AF Level})$$



\* The Audio input level was measured when frequency deviation indicates 50% modulation which measured with Radio communication service monitor.

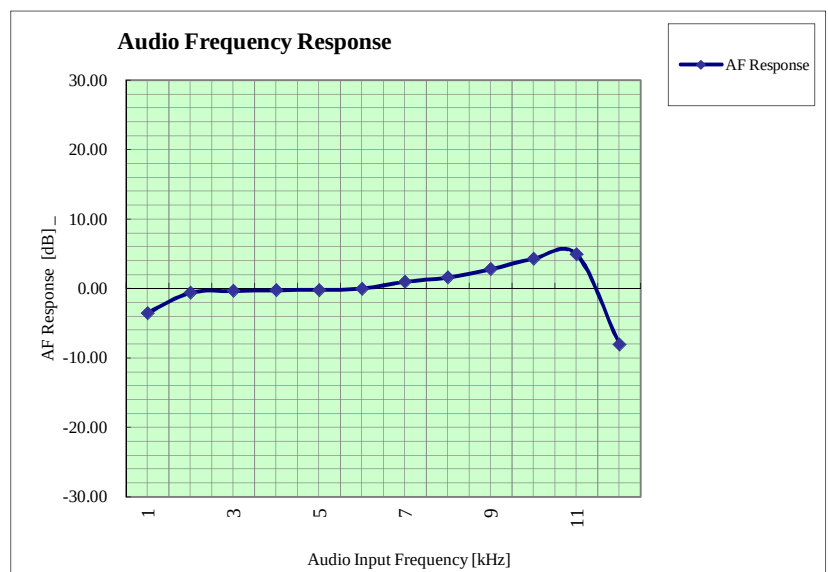
949.875 MHz, Low power

\* CMS54 setting : filter OFF

| AF Freq. [Hz] | AF level [mV] | AF Response [dB] |
|---------------|---------------|------------------|
| 70            | 248.00        | -3.49            |
| 100           | 177.00        | -0.56            |
| 300           | 172.00        | -0.31            |
| 500           | 170.00        | -0.21            |
| 700           | 169.00        | -0.16            |
| 1000          | 166.00        | 0.00             |
| 2000          | 148.00        | 1.00             |
| 3000          | 138.00        | 1.60             |
| 5000          | 120.00        | 2.82             |
| 7000          | 101.00        | 4.32             |
| 10000         | 94.00         | 4.94             |
| 15000         | 418.00        | -8.02            |

Calculation formula:

$$\text{AF Response} = 20 \times \log (\text{AF Level of 1 kHz} / \text{AF Level})$$



\* The Audio input level was measured when frequency deviation indicates 50% modulation which measured with Radio communication service monitor.

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## Data of Modulation Characteristics

### (Transmitter Deviation for Input Frequency Response)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

MODEL ATW-T6001 S

S/ N US002

POWER DC 3 V

MODE Transmitting

946.125 MHz High power

\* CMS54 setting : filter OFF

TEST DISTANCE

-

DATE

April 24, 2015

TEMPERATURE

25 deg.C

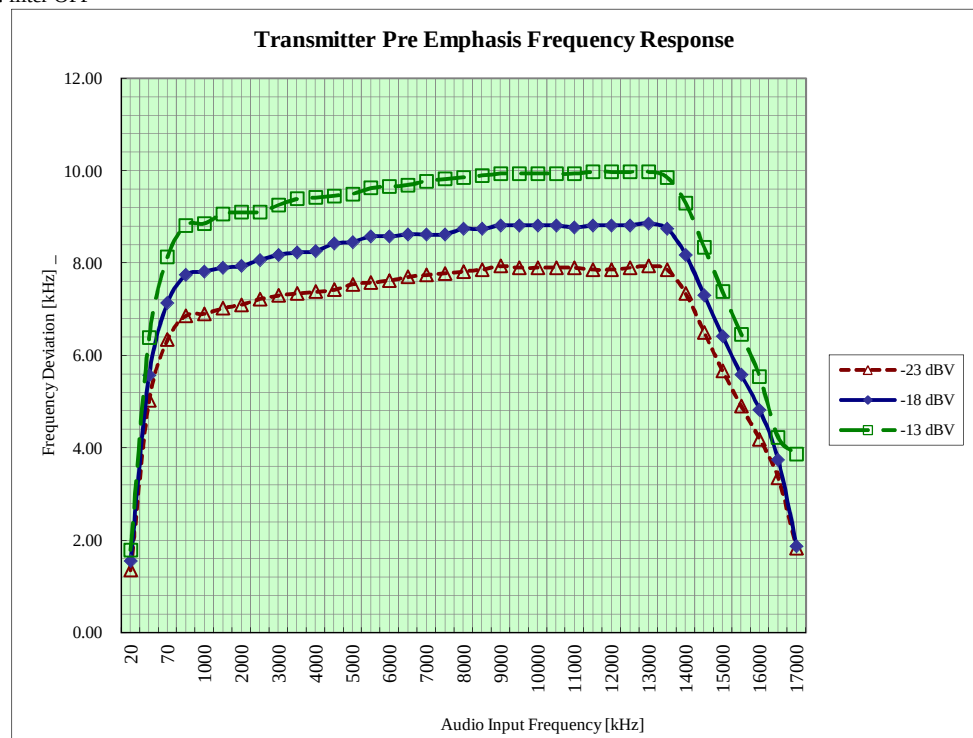
HUMIDITY

49 %RH

ENGINEER

Kenichi Adachi

| Input Freq | Deviation [kHz] (Peak) |         |         |
|------------|------------------------|---------|---------|
|            | -23 dBV                | -18 dBV | -13 dBV |
| 20         | 1.36                   | 1.56    | 1.80    |
| 50         | 5.03                   | 5.57    | 6.39    |
| 70         | 6.35                   | 7.15    | 8.14    |
| 500        | 6.87                   | 7.75    | 8.82    |
| 1000       | 6.91                   | 7.82    | 8.86    |
| 1500       | 7.03                   | 7.90    | 9.07    |
| 2000       | 7.11                   | 7.94    | 9.10    |
| 2500       | 7.23                   | 8.07    | 9.11    |
| 3000       | 7.31                   | 8.18    | 9.26    |
| 3500       | 7.35                   | 8.23    | 9.39    |
| 4000       | 7.39                   | 8.26    | 9.42    |
| 4500       | 7.43                   | 8.43    | 9.46    |
| 5000       | 7.55                   | 8.46    | 9.50    |
| 5500       | 7.59                   | 8.58    | 9.63    |
| 6000       | 7.63                   | 8.58    | 9.66    |
| 6500       | 7.71                   | 8.62    | 9.69    |
| 7000       | 7.75                   | 8.62    | 9.78    |
| 7500       | 7.78                   | 8.63    | 9.82    |
| 8000       | 7.82                   | 8.74    | 9.86    |
| 8500       | 7.86                   | 8.74    | 9.90    |
| 9000       | 7.94                   | 8.82    | 9.94    |
| 9500       | 7.90                   | 8.82    | 9.94    |
| 10000      | 7.90                   | 8.82    | 9.94    |
| 10500      | 7.90                   | 8.82    | 9.94    |
| 11000      | 7.90                   | 8.78    | 9.94    |
| 11500      | 7.86                   | 8.82    | 9.98    |
| 12000      | 7.86                   | 8.82    | 9.98    |
| 12500      | 7.90                   | 8.82    | 9.98    |
| 13000      | 7.94                   | 8.86    | 9.98    |
| 13500      | 7.86                   | 8.74    | 9.86    |
| 14000      | 7.35                   | 8.18    | 9.30    |
| 14500      | 6.51                   | 7.31    | 8.34    |
| 15000      | 5.67                   | 6.43    | 7.39    |
| 15500      | 4.91                   | 5.59    | 6.47    |
| 16000      | 4.19                   | 4.83    | 5.55    |
| 16500      | 3.35                   | 3.75    | 4.23    |
| 17000      | 1.84                   | 1.88    | 3.87    |



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## Data of Modulation Characteristics

### (Transmitter Deviation for Input Frequency Response)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

MODEL ATW-T6001 S

S/ N US002

POWER DC 3 V

MODE Transmitting

946.125 MHz Low power

\* CMS54 setting : filter OFF

TEST DISTANCE

-

DATE

April 27, 2015

TEMPERATURE

26 deg.C

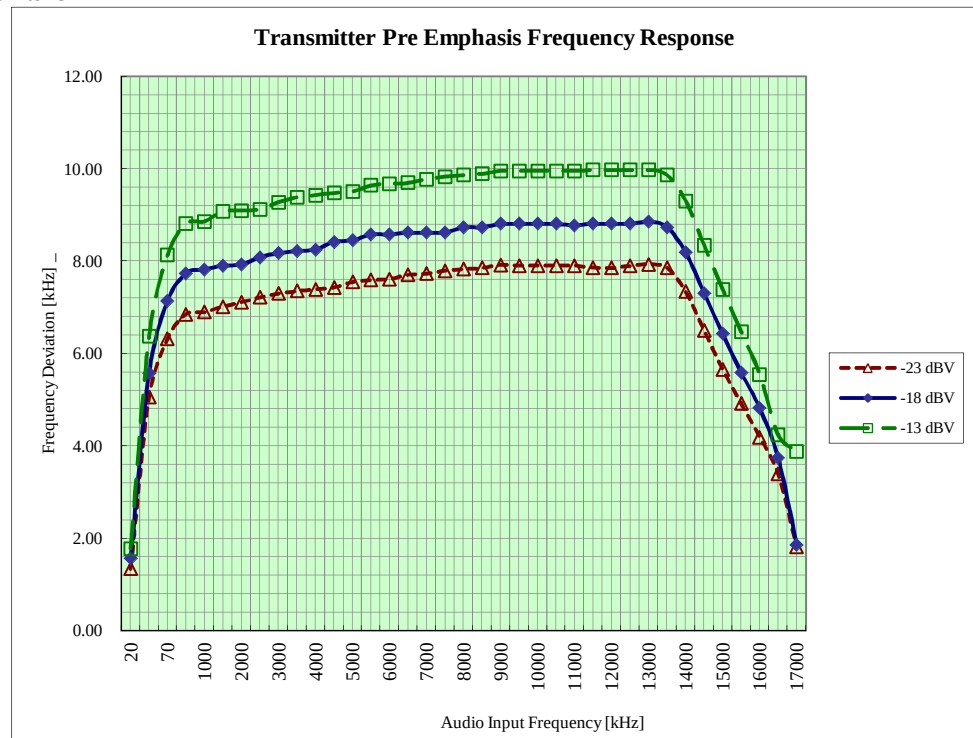
HUMIDITY

46 %RH

ENGINEER

Kenichi Adachi

| Input Freq | Deviation [kHz] (Peak) |         |         |
|------------|------------------------|---------|---------|
|            | -23 dBV                | -18 dBV | -13 dBV |
| 20         | 1.34                   | 1.57    | 1.78    |
| 50         | 5.06                   | 5.58    | 6.38    |
| 70         | 6.32                   | 7.14    | 8.13    |
| 500        | 6.86                   | 7.74    | 8.81    |
| 1000       | 6.90                   | 7.82    | 8.87    |
| 1500       | 7.02                   | 7.91    | 9.09    |
| 2000       | 7.11                   | 7.93    | 9.10    |
| 2500       | 7.22                   | 8.09    | 9.12    |
| 3000       | 7.30                   | 8.18    | 9.28    |
| 3500       | 7.36                   | 8.23    | 9.39    |
| 4000       | 7.39                   | 8.26    | 9.43    |
| 4500       | 7.43                   | 8.42    | 9.48    |
| 5000       | 7.55                   | 8.46    | 9.51    |
| 5500       | 7.59                   | 8.58    | 9.64    |
| 6000       | 7.61                   | 8.58    | 9.68    |
| 6500       | 7.71                   | 8.62    | 9.70    |
| 7000       | 7.73                   | 8.62    | 9.78    |
| 7500       | 7.80                   | 8.62    | 9.83    |
| 8000       | 7.83                   | 8.74    | 9.87    |
| 8500       | 7.86                   | 8.74    | 9.89    |
| 9000       | 7.92                   | 8.81    | 9.96    |
| 9500       | 7.91                   | 8.81    | 9.96    |
| 10000      | 7.91                   | 8.81    | 9.96    |
| 10500      | 7.91                   | 8.81    | 9.96    |
| 11000      | 7.91                   | 8.78    | 9.96    |
| 11500      | 7.87                   | 8.81    | 9.98    |
| 12000      | 7.86                   | 8.81    | 9.98    |
| 12500      | 7.90                   | 8.81    | 9.98    |
| 13000      | 7.93                   | 8.86    | 9.98    |
| 13500      | 7.86                   | 8.74    | 9.86    |
| 14000      | 7.34                   | 8.19    | 9.31    |
| 14500      | 6.50                   | 7.31    | 8.35    |
| 15000      | 5.66                   | 6.43    | 7.39    |
| 15500      | 4.92                   | 5.59    | 6.48    |
| 16000      | 4.20                   | 4.82    | 5.55    |
| 16500      | 3.39                   | 3.75    | 4.24    |
| 17000      | 1.82                   | 1.87    | 3.89    |



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## Data of Modulation Characteristics

### (Transmitter Deviation for Input Frequency Response)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

MODEL ATW-T6001 S

S/ N US002

POWER DC 3 V

MODE Transmitting

949.875 MHz High power

\* CMS54 setting : filter OFF

TEST DISTANCE -

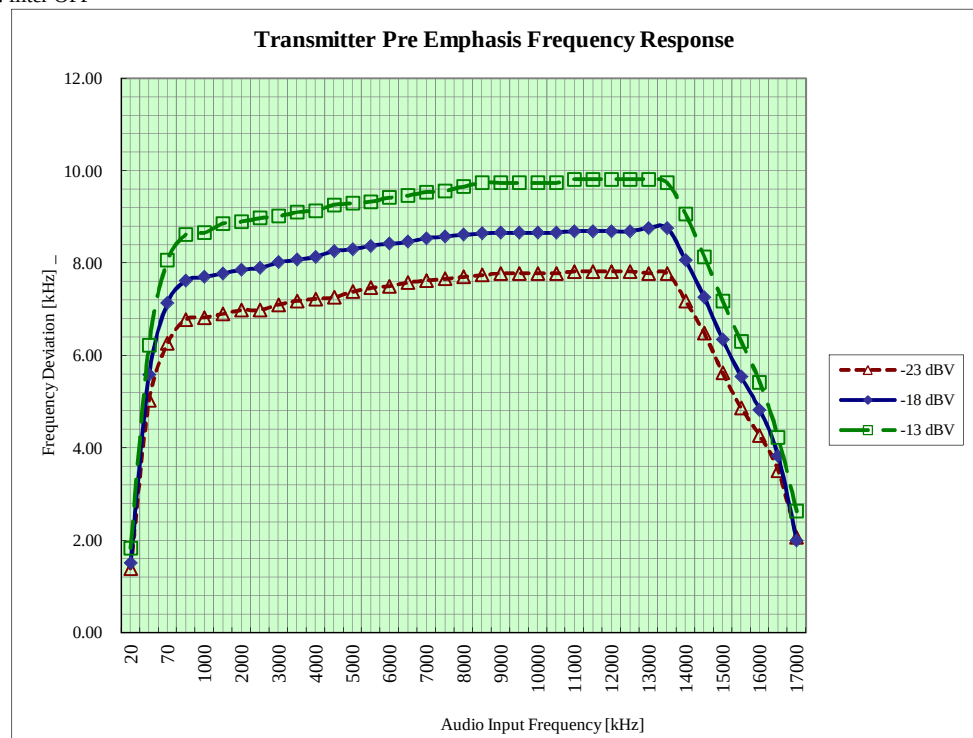
DATE April 27, 2015

TEMPERATURE 26 deg.C

HUMIDITY 46 %RH

ENGINEER Kenichi Adachi

| Input Freq | Deviation [kHz] (Peak) |         |         |
|------------|------------------------|---------|---------|
|            | -23 dBV                | -18 dBV | -13 dBV |
| 20         | 1.40                   | 1.52    | 1.84    |
| 50         | 5.03                   | 5.59    | 6.23    |
| 70         | 6.27                   | 7.15    | 8.06    |
| 500        | 6.79                   | 7.63    | 8.62    |
| 1000       | 6.83                   | 7.71    | 8.66    |
| 1500       | 6.91                   | 7.78    | 8.86    |
| 2000       | 6.99                   | 7.86    | 8.90    |
| 2500       | 6.99                   | 7.90    | 8.98    |
| 3000       | 7.11                   | 8.02    | 9.02    |
| 3500       | 7.19                   | 8.08    | 9.11    |
| 4000       | 7.23                   | 8.14    | 9.14    |
| 4500       | 7.27                   | 8.27    | 9.27    |
| 5000       | 7.39                   | 8.30    | 9.30    |
| 5500       | 7.47                   | 8.38    | 9.34    |
| 6000       | 7.51                   | 8.42    | 9.42    |
| 6500       | 7.59                   | 8.47    | 9.47    |
| 7000       | 7.63                   | 8.54    | 9.54    |
| 7500       | 7.67                   | 8.58    | 9.57    |
| 8000       | 7.71                   | 8.62    | 9.66    |
| 8500       | 7.75                   | 8.65    | 9.74    |
| 9000       | 7.78                   | 8.66    | 9.74    |
| 9500       | 7.78                   | 8.66    | 9.74    |
| 10000      | 7.78                   | 8.66    | 9.74    |
| 10500      | 7.78                   | 8.66    | 9.74    |
| 11000      | 7.82                   | 8.70    | 9.82    |
| 11500      | 7.82                   | 8.70    | 9.82    |
| 12000      | 7.82                   | 8.70    | 9.82    |
| 12500      | 7.82                   | 8.70    | 9.82    |
| 13000      | 7.78                   | 8.77    | 9.82    |
| 13500      | 7.78                   | 8.77    | 9.74    |
| 14000      | 7.19                   | 8.06    | 9.06    |
| 14500      | 6.49                   | 7.27    | 8.14    |
| 15000      | 5.63                   | 6.35    | 7.19    |
| 15500      | 4.87                   | 5.55    | 6.31    |
| 16000      | 4.27                   | 4.83    | 5.43    |
| 16500      | 3.51                   | 3.83    | 4.23    |
| 17000      | 2.08                   | 2.00    | 2.63    |

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## Data of Modulation Characteristics

### (Transmitter Deviation for Input Frequency Response)

UL Japan, Inc. Shonan EMC Lab.

No.5 Shielded Room

REGULATION

FCC part 2, section 2.1047

COMPANY Audio-Technica Corporation

EQUIPMENT UHF SYNTHESIZED WIRELESS TRANSMITTER

MODEL ATW-T6001 S

S/ N US002

POWER DC 3 V

MODE Transmitting

949.875 MHz Low power

\* CMS54 setting : filter OFF

TEST DISTANCE -

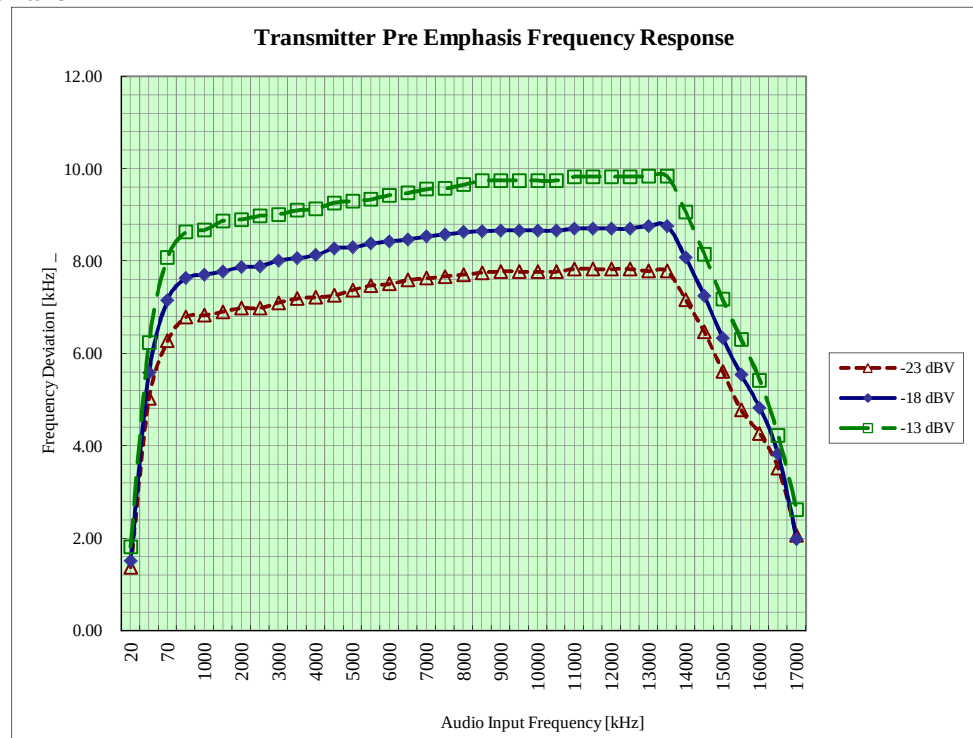
DATE April 27, 2015

TEMPERATURE 26 deg.C

HUMIDITY 46 %RH

ENGINEER Kenichi Adachi

| Input Freq | Deviation [kHz] (Peak) |         |         |
|------------|------------------------|---------|---------|
|            | -23 dBV                | -18 dBV | -13 dBV |
| 20         | 1.38                   | 1.52    | 1.82    |
| 50         | 5.03                   | 5.59    | 6.23    |
| 70         | 6.28                   | 7.16    | 8.08    |
| 500        | 6.79                   | 7.63    | 8.63    |
| 1000       | 6.83                   | 7.71    | 8.68    |
| 1500       | 6.91                   | 7.78    | 8.88    |
| 2000       | 6.99                   | 7.88    | 8.90    |
| 2500       | 6.99                   | 7.89    | 8.99    |
| 3000       | 7.10                   | 8.02    | 9.02    |
| 3500       | 7.19                   | 8.07    | 9.10    |
| 4000       | 7.22                   | 8.13    | 9.14    |
| 4500       | 7.26                   | 8.28    | 9.27    |
| 5000       | 7.38                   | 8.30    | 9.31    |
| 5500       | 7.48                   | 8.39    | 9.34    |
| 6000       | 7.51                   | 8.43    | 9.43    |
| 6500       | 7.59                   | 8.48    | 9.48    |
| 7000       | 7.63                   | 8.53    | 9.56    |
| 7500       | 7.67                   | 8.58    | 9.57    |
| 8000       | 7.71                   | 8.63    | 9.66    |
| 8500       | 7.75                   | 8.65    | 9.74    |
| 9000       | 7.78                   | 8.67    | 9.75    |
| 9500       | 7.78                   | 8.67    | 9.75    |
| 10000      | 7.78                   | 8.67    | 9.75    |
| 10500      | 7.78                   | 8.67    | 9.75    |
| 11000      | 7.83                   | 8.71    | 9.83    |
| 11500      | 7.83                   | 8.71    | 9.83    |
| 12000      | 7.83                   | 8.71    | 9.83    |
| 12500      | 7.83                   | 8.71    | 9.83    |
| 13000      | 7.79                   | 8.77    | 9.84    |
| 13500      | 7.79                   | 8.77    | 9.84    |
| 14000      | 7.17                   | 8.08    | 9.07    |
| 14500      | 6.48                   | 7.26    | 8.16    |
| 15000      | 5.62                   | 6.34    | 7.18    |
| 15500      | 4.78                   | 5.54    | 6.31    |
| 16000      | 4.27                   | 4.83    | 5.43    |
| 16500      | 3.52                   | 3.83    | 4.23    |
| 17000      | 2.07                   | 1.99    | 2.63    |

**UL Japan, Inc.****Shonan EMC Lab.**

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## Emission Bandwidth

Company Audio-Technica Corporation  
 Equipment UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model ATW-T6001 S  
 Serial No. US002  
 Power DC 3 V  
 Mode Transmitting  
 modulation at 2.5kHz at 16dB over 50%

UL Japan, Inc. Shonan EMC Lab.  
 No.5 Shielded Room

Regulation FCC part 74, section 74.861(e)(5)  
 Date May 1, 2015  
 Temperature 25 deg.C  
 Humidity 47 %RH  
 ENGINEER Kenichi Adachi

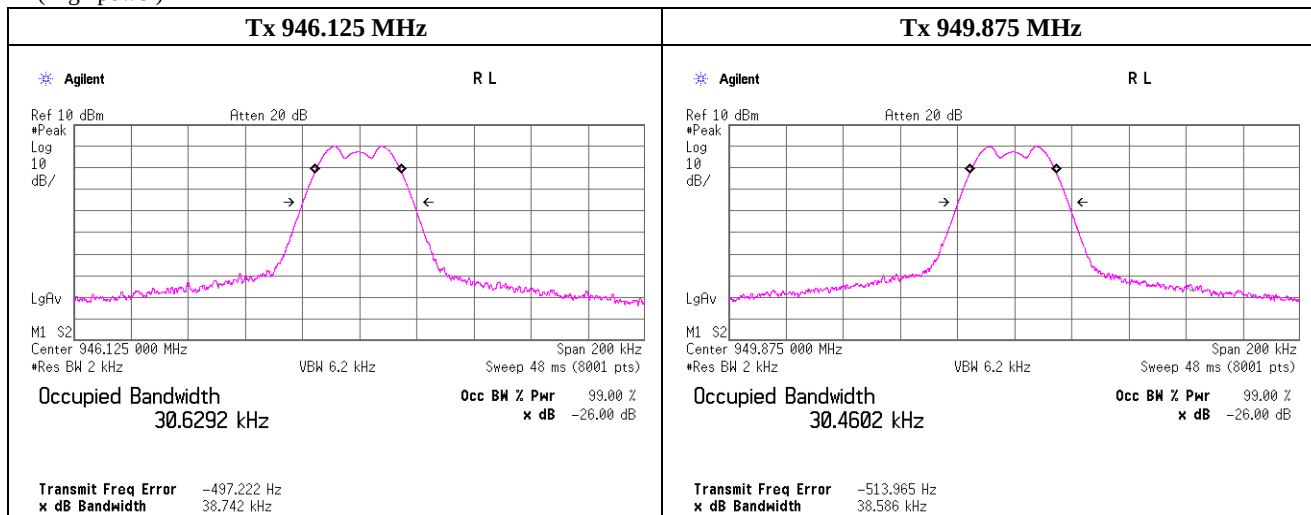
| Freq.<br>[MHz] | 99% Occupied bandwidth |                 | Limit<br>[kHz] |
|----------------|------------------------|-----------------|----------------|
|                | High power [kHz]       | Low power [kHz] |                |
| 946.1250       | 30.6291                | 30.6207         | < 200.0        |
| 949.8750       | 30.4602                | 30.4282         | < 200.0        |

(reference)

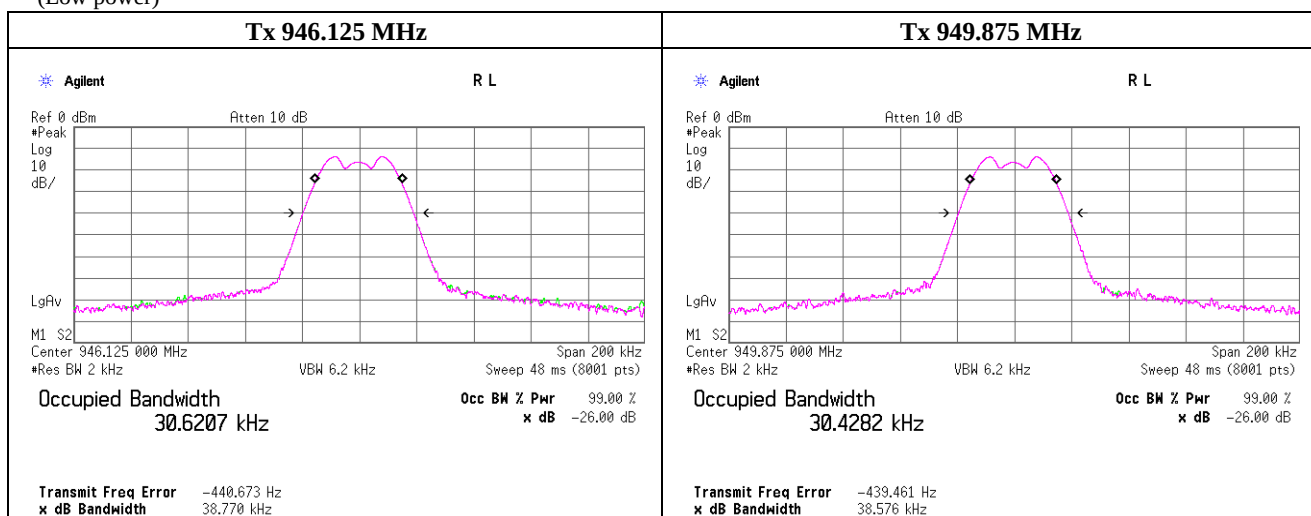
Necessary bandwidth (  $B_n = 2M + 2D$  )

|          |         |         |
|----------|---------|---------|
| Bn [kHz] | M [kHz] | D [kHz] |
| 62.5     | 15      | 16.25   |

(High power)



(Low power)



UL Japan, Inc.

Shonan EMC Lab.

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Revised date : November 11, 2015

**Spurious emission at antenna terminal**UL Japan, Inc. Shonan EMC Lab.  
No.5 Shielded Room

|            |                                       |             |                                   |
|------------|---------------------------------------|-------------|-----------------------------------|
| Company    | Audio-Technica Corporation            | Regulation  | FCC part 74, section 74.861(e)(6) |
| Equipment  | UHF SYNTHESIZED WIRELESS TRANSMITTER  |             |                                   |
| Model      | ATW-T6001 S                           |             |                                   |
| Serial No. | US002                                 | Date        | May 1, 2015                       |
| Power      | DC 3 V                                | Temperature | 25 deg.C                          |
| Mode       | Transmitting                          | Humidity    | 47 %RH                            |
|            | modulation at 2.5kHz at 16dB over 50% | ENGINEER    | Kenichi Adachi                    |

(Freq. = Frequency)

| Power setting | Channel | Tested Freq. [MHz] | Reading Freq. [MHz] | Level [dBm] | Cable loss [dB] | Attenuator loss [dB] | Reult [dBm] | Limit [dBm] | Margin [dB] |
|---------------|---------|--------------------|---------------------|-------------|-----------------|----------------------|-------------|-------------|-------------|
| High power    | Low     | 946.125            | 0.136               | -83.16      | 0.01            | 9.50                 | -73.65      | -13.00      | 60.65       |
|               |         |                    | 0.150               | -88.73      | 0.01            | 9.50                 | -79.22      | -13.00      | 66.22       |
|               |         |                    | 295.650             | -70.91      | 0.47            | 9.53                 | -60.90      | -13.00      | 47.90       |
|               |         |                    | 650.525             | -64.93      | 0.67            | 9.54                 | -54.72      | -13.00      | 41.72       |
|               |         |                    | 1892.200            | -53.78      | 1.10            | 9.57                 | -43.11      | -13.00      | 30.11       |
|               |         |                    | 7091.875            | -64.32      | 2.31            | 9.26                 | -52.75      | -13.00      | 39.75       |
|               | High    | 949.875            | 0.136               | -83.06      | 0.01            | 9.50                 | -73.55      | -13.00      | 60.55       |
|               |         |                    | 0.150               | -86.76      | 0.01            | 9.50                 | -77.25      | -13.00      | 64.25       |
|               |         |                    | 296.900             | -70.48      | 0.48            | 9.53                 | -60.47      | -13.00      | 47.47       |
|               |         |                    | 653.000             | -64.90      | 0.67            | 9.54                 | -54.69      | -13.00      | 41.69       |
|               |         |                    | 1899.800            | -53.99      | 1.11            | 9.57                 | -43.32      | -13.00      | 30.32       |
|               |         |                    | 7113.125            | -65.10      | 2.31            | 9.26                 | -53.53      | -13.00      | 40.53       |
| Low power     | Low     | 946.125            | 0.136               | -83.94      | 0.01            | 9.50                 | -74.43      | -13.00      | 61.43       |
|               |         |                    | 0.150               | -89.18      | 0.01            | 9.50                 | -79.67      | -13.00      | 66.67       |
|               |         |                    | 295.650             | -81.98      | 0.47            | 9.53                 | -71.97      | -13.00      | 58.97       |
|               |         |                    | 3206.000            | -67.60      | 2.06            | 9.54                 | -56.00      | -13.00      | 43.00       |
|               |         |                    | 7035.625            | -66.00      | 2.50            | 9.57                 | -53.93      | -13.00      | 40.93       |
|               |         |                    |                     |             |                 |                      |             |             |             |
|               | High    | 949.875            | 0.136               | -83.98      | 0.01            | 9.50                 | -74.47      | -13.00      | 61.47       |
|               |         |                    | 0.150               | -88.44      | 0.01            | 9.50                 | -78.93      | -13.00      | 65.93       |
|               |         |                    | 296.860             | -81.35      | 0.48            | 9.53                 | -71.34      | -13.00      | 58.34       |
|               |         |                    | 3089.500            | -67.31      | 2.00            | 9.54                 | -55.77      | -13.00      | 42.77       |
|               |         |                    | 7073.125            | -65.51      | 2.51            | 9.57                 | -53.43      | -13.00      | 40.43       |
|               |         |                    |                     |             |                 |                      |             |             |             |

Calculation formula:

Result = Reading + Cable loss + Attenuator loss

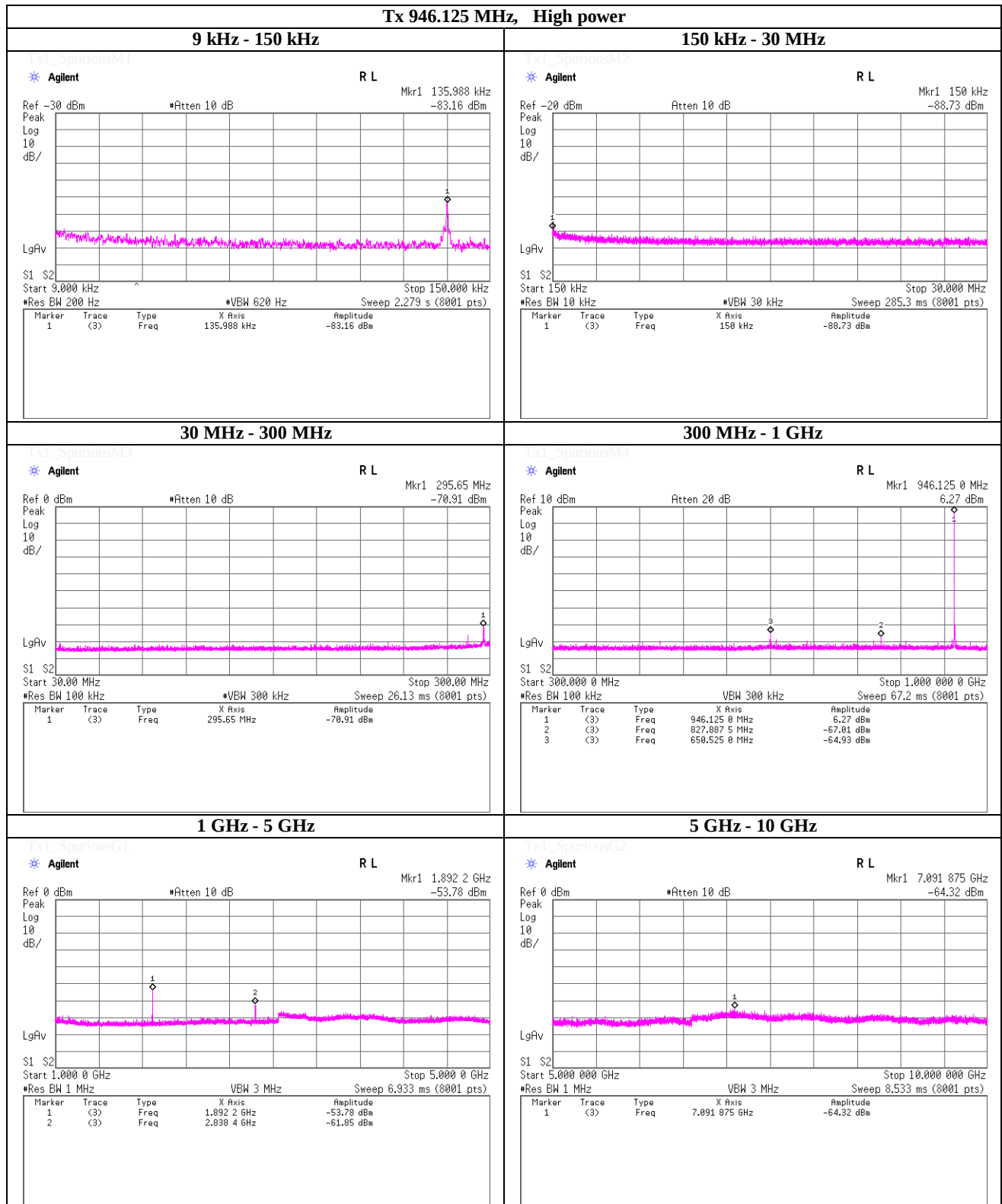
Limit = mean output power in dBm - ( 43 + 10 log10 ( mean output power in watts ) ) dB = -13 dBm

There might be some 0.01 dB difference between plots and above table due to the calculation to two decimal places.

**UL Japan, Inc.****Shonan EMC Lab.****1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN****Telephone : +81 463 50 6400****Facsimile : +81 463 50 6401**

Test place UL Japan, Inc. Shonan EMC Lab. No.5 Shielded Room  
 Date May 1, 2015 (Serial No. US002)  
 Temperature / Humidity 25 deg.C , 47 %RH  
 Engineer Kenichi Adachi

## Spurious emission at antenna terminal



**UL Japan, Inc.**

**Shonan EMC Lab.**

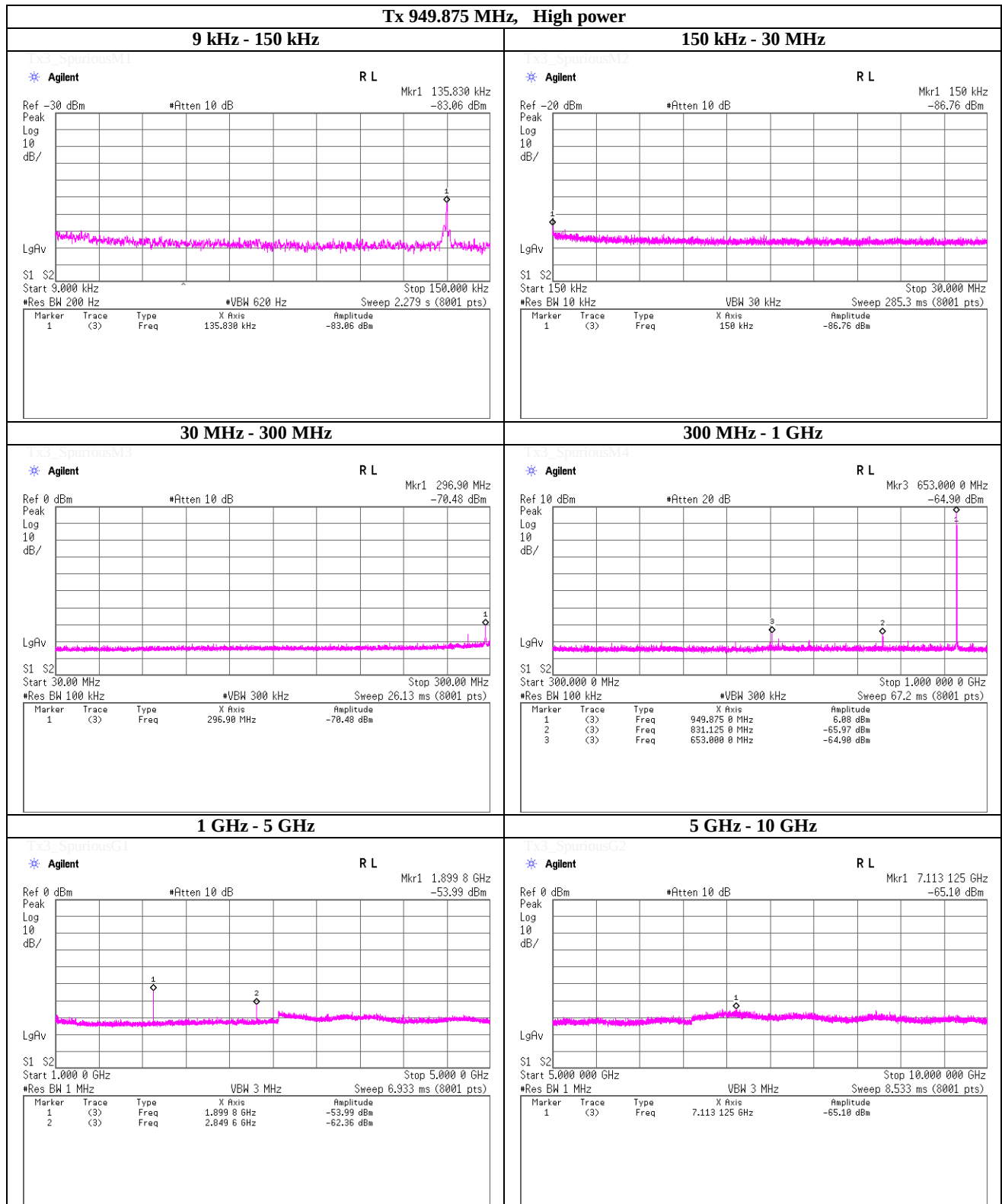
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

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## Spurious emission at antenna terminal



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**Shonan EMC Lab.**

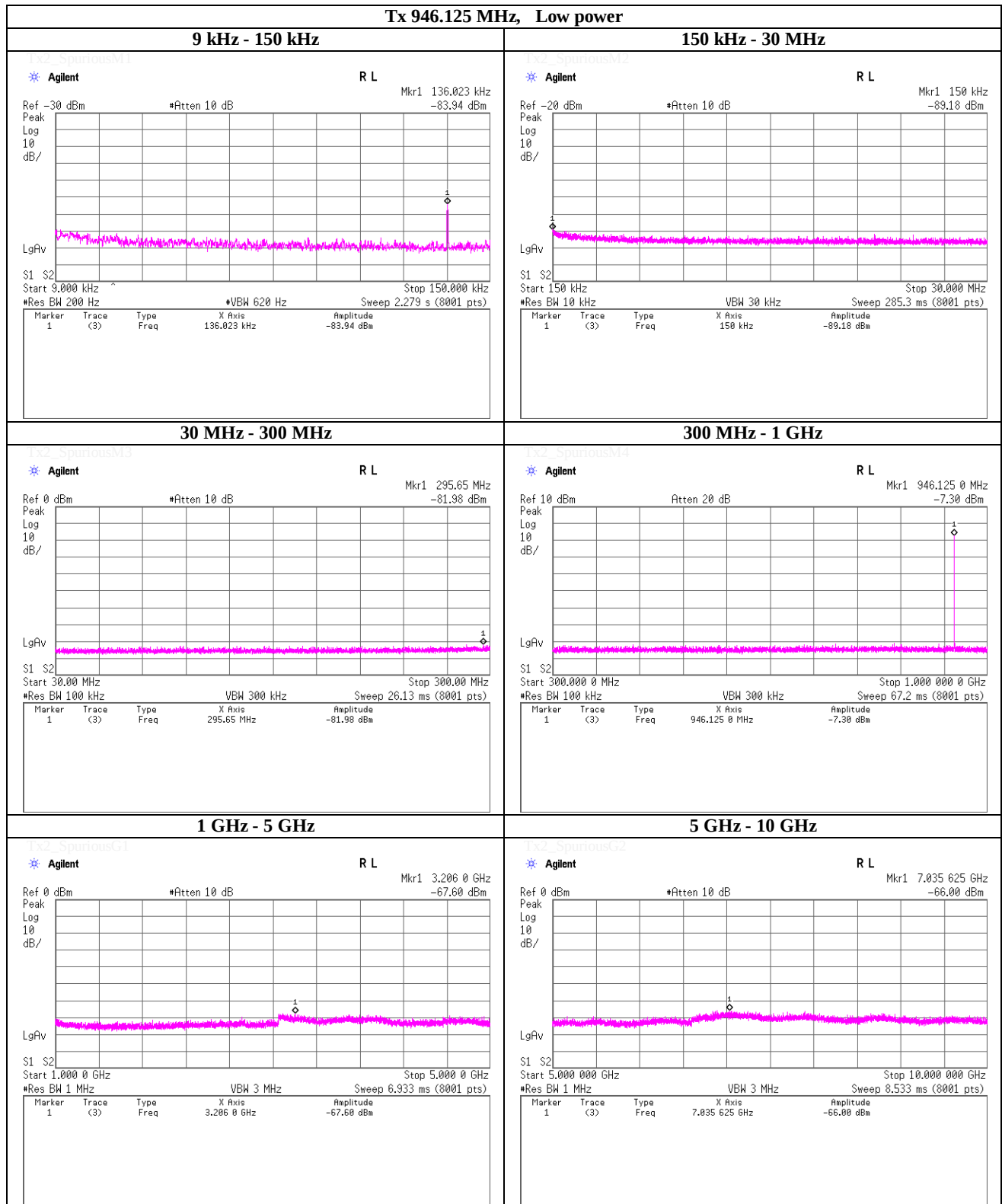
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## Spurious emission at antenna terminal



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**Shonan EMC Lab.**

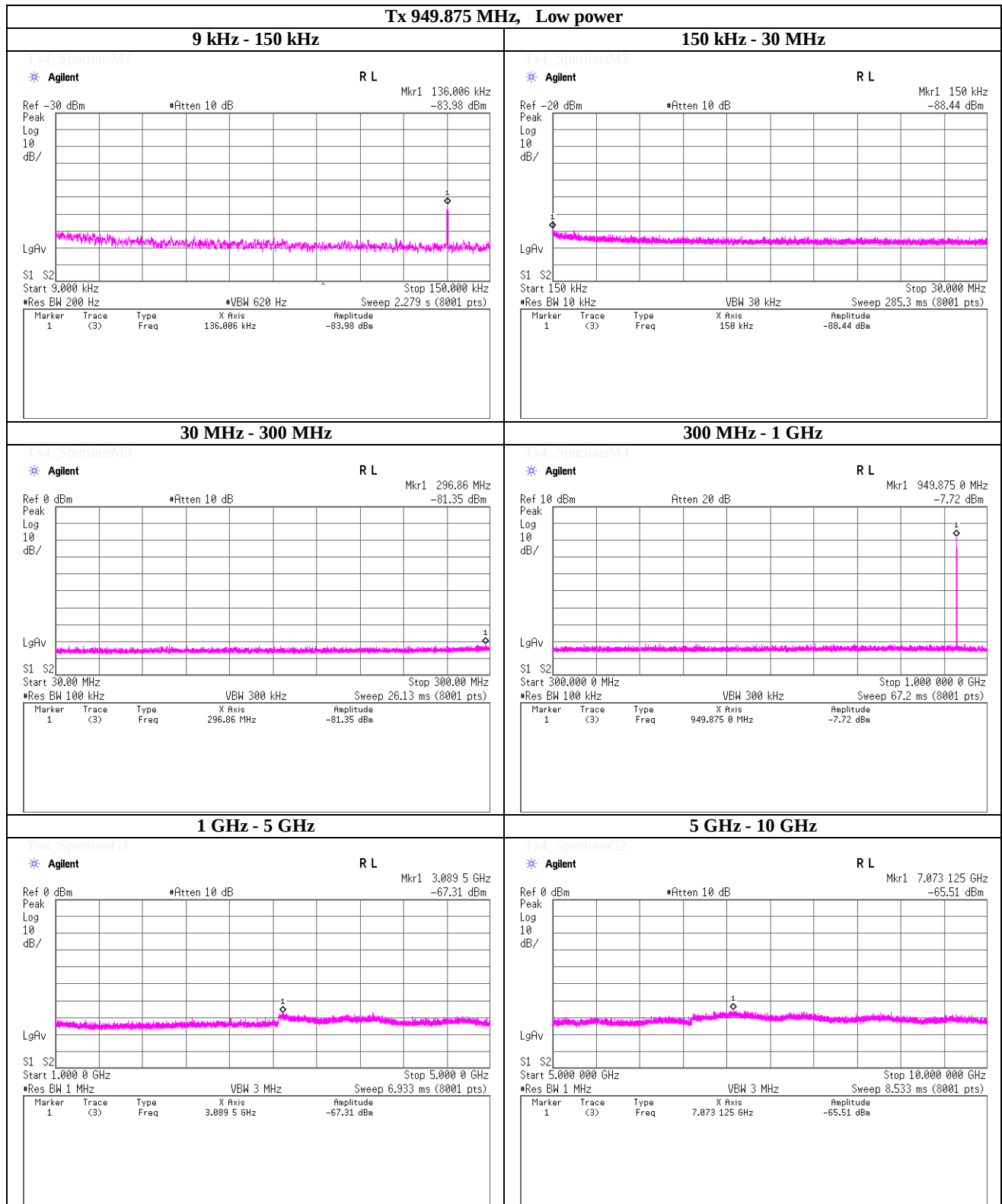
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## Spurious emission at antenna terminal



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**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber  
Date : 2015/04/28

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 946.125 MHz (High power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 49 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |         |
| 1   | 174.417        | 29.4                      | -65.2             | 2.2                      | 12.9               | -78.1           | -13.0          | 65.1           | Hori. | 186            | 225            | Dipol           | RMS-av  |
| 2   | 650.500        | 36.0                      | -43.7             | 2.2                      | 16.1               | -59.8           | -13.0          | 46.8           | Hori. | 148            | 231            | Dipol           | RMS-av  |
| 3   | 827.875        | 33.4                      | -42.8             | 2.2                      | 17.1               | -59.9           | -13.0          | 46.9           | Hori. | 110            | 260            | Dipol           | RMS-av  |
| 4   | 942.808        | 21.9                      | -52.0             | 2.2                      | 17.6               | -69.6           | -13.0          | 56.6           | Hori. | 100            | 247            | Dipol           | RMS-av  |
| 5   | 944.000        | 16.9                      | -58.7             | 2.2                      | 17.6               | -76.3           | -13.0          | 63.3           | Hori. | 100            | 247            | Dipol           | RMS-av  |
| 6   | 952.000        | 15.4                      | -59.8             | 2.2                      | 17.7               | -77.5           | -13.0          | 64.5           | Hori. | 100            | 247            | Dipol           | RMS-av  |
| 7   | 184.790        | 16.1                      | -86.0             | 2.2                      | 13.0               | -99.0           | -13.0          | 86.0           | Vert. | 184            | 158            | Dipol           | RMS-av  |
| 8   | 650.500        | 33.1                      | -44.3             | 2.2                      | 16.1               | -60.4           | -13.0          | 47.4           | Vert. | 100            | 240            | Dipol           | RMS-av  |
| 9   | 827.875        | 31.5                      | -41.9             | 2.2                      | 17.1               | -59.0           | -13.0          | 46.0           | Vert. | 134            | 228            | Dipol           | RMS-av  |
| 10  | 942.808        | 18.5                      | -54.0             | 2.2                      | 17.6               | -71.6           | -13.0          | 58.6           | Vert. | 113            | 206            | Dipol           | RMS-av  |
| 11  | 944.000        | 16.2                      | -58.9             | 2.2                      | 17.6               | -76.5           | -13.0          | 63.5           | Vert. | 113            | 206            | Dipol           | RMS-av  |
| 12  | 952.000        | 15.2                      | -59.1             | 2.2                      | 17.7               | -76.8           | -13.0          | 63.8           | Vert. | 113            | 206            | Dipol           | RMS-av  |

**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.3 Semi-Anechoic Chamber  
Date : 2015/05/07

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 946.125 MHz (High power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 42 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment                         |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------------------------------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |                                 |
| 1   | 1892.249       | 53.5                      | -38.8             | 9.7                      | 5.6                | -36.9           | -13.0          | 23.9           | Hori. | 100            | 284            | Horn            | X, Av:RMS-av                    |
| 2   | 2838.374       | 40.0                      | -52.3             | 10.8                     | 6.9                | -50.6           | -13.0          | 37.6           | Hori. | 100            | 287            | Horn            | X, Av:RMS-av                    |
| 3   | 3784.500       | 37.1                      | -55.0             | 12.0                     | 8.1                | -53.3           | -13.0          | 40.3           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 4   | 4730.625       | 37.0                      | -53.0             | 12.2                     | 9.1                | -52.1           | -13.0          | 39.1           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 5   | 5676.750       | 36.1                      | -50.0             | 12.3                     | 10.0               | -49.9           | -13.0          | 36.9           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 6   | 6622.875       | 36.2                      | -47.0             | 11.3                     | 10.8               | -48.7           | -13.0          | 35.7           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 7   | 7569.000       | 37.3                      | -45.0             | 10.4                     | 11.6               | -48.4           | -13.0          | 35.4           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 8   | 8515.125       | 37.9                      | -41.0             | 11.4                     | 12.4               | -44.2           | -13.0          | 31.2           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 9   | 9461.250       | 38.1                      | -39.0             | 11.0                     | 13.1               | -43.3           | -13.0          | 30.3           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 10  | 1892.249       | 52.0                      | -42.4             | 9.7                      | 5.6                | -40.5           | -13.0          | 27.5           | Vert. | 121            | 268            | Horn            | Y, Av:RMS-av                    |
| 11  | 2838.374       | 38.1                      | -59.0             | 10.8                     | 6.9                | -57.3           | -13.0          | 44.3           | Vert. | 120            | 264            | Horn            | Y, Av:RMS-av                    |
| 12  | 3784.500       | 37.0                      | -55.0             | 12.0                     | 8.1                | -53.3           | -13.0          | 40.3           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 13  | 4730.625       | 36.9                      | -54.0             | 12.2                     | 9.1                | -53.1           | -13.0          | 40.1           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 14  | 5676.750       | 36.0                      | -50.0             | 12.3                     | 10.0               | -49.9           | -13.0          | 36.9           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 15  | 6622.875       | 36.1                      | -47.0             | 11.3                     | 10.8               | -48.7           | -13.0          | 35.7           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 16  | 7569.000       | 37.2                      | -45.0             | 10.4                     | 11.6               | -48.4           | -13.0          | 35.4           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 17  | 8515.125       | 38.0                      | -42.0             | 11.4                     | 12.4               | -45.2           | -13.0          | 32.2           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 18  | 9461.250       | 38.0                      | -40.0             | 11.0                     | 13.1               | -44.3           | -13.0          | 31.3           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |

Calculation: Result [dBm] = SG level [dB] + Tx Ant Gain [dBi] - Tx Loss (Cable) [dB] - 2.15 [dB]  
 Tx Antenna: Horn (1G-40G) / Rx-Antenna: Horn (1G-40G)

**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber  
Date : 2015/04/29

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 949.875 MHz (High power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 49 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |         |
| 1   | 174.726        | 28.6                      | -66.2             | 2.2                      | 12.9               | -79.1           | -13.0          | 66.1           | Hori. | 184            | 223            | Dipol           | RMS-av  |
| 2   | 653.000        | 31.0                      | -48.8             | 2.2                      | 16.1               | -64.9           | -13.0          | 51.9           | Hori. | 149            | 209            | Dipol           | RMS-av  |
| 3   | 831.124        | 27.8                      | -47.7             | 2.2                      | 17.1               | -64.8           | -13.0          | 51.8           | Hori. | 108            | 233            | Dipol           | RMS-av  |
| 4   | 871.874        | 28.0                      | -47.6             | 2.2                      | 17.3               | -64.9           | -13.0          | 51.9           | Hori. | 108            | 233            | Dipol           | RMS-av  |
| 5   | 944.000        | 15.5                      | -59.7             | 2.2                      | 17.6               | -77.3           | -13.0          | 64.3           | Hori. | 100            | 245            | Dipol           | RMS-av  |
| 6   | 952.000        | 16.4                      | -57.5             | 2.2                      | 17.7               | -75.2           | -13.0          | 62.2           | Hori. | 100            | 245            | Dipol           | RMS-av  |
| 7   | 975.874        | 21.4                      | -52.5             | 2.2                      | 17.8               | -70.3           | -13.0          | 57.3           | Hori. | 100            | 245            | Dipol           | RMS-av  |
| 8   | 183.789        | 16.0                      | -86.3             | 2.2                      | 13.0               | -99.3           | -13.0          | 86.3           | Vert. | 182            | 156            | Dipol           | RMS-av  |
| 9   | 653.000        | 31.1                      | -47.7             | 2.2                      | 16.1               | -63.8           | -13.0          | 50.8           | Vert. | 124            | 224            | Dipol           | RMS-av  |
| 10  | 831.124        | 25.5                      | -46.6             | 2.2                      | 17.1               | -63.7           | -13.0          | 50.7           | Vert. | 133            | 228            | Dipol           | RMS-av  |
| 11  | 871.874        | 25.7                      | -46.5             | 2.2                      | 17.3               | -63.8           | -13.0          | 50.8           | Vert. | 133            | 228            | Dipol           | RMS-av  |
| 12  | 944.000        | 15.4                      | -58.9             | 2.2                      | 17.6               | -76.5           | -13.0          | 63.5           | Vert. | 115            | 253            | Dipol           | RMS-av  |
| 13  | 952.000        | 16.2                      | -56.8             | 2.2                      | 17.7               | -74.5           | -13.0          | 61.5           | Vert. | 115            | 253            | Dipol           | RMS-av  |
| 14  | 975.874        | 21.1                      | -51.7             | 2.2                      | 17.8               | -69.5           | -13.0          | 56.5           | Vert. | 115            | 253            | Dipol           | RMS-av  |

**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.3 Semi-Anechoic Chamber  
Date : 2015/05/07

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 949.875 MHz (High power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 42 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment                         |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------------------------------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |                                 |
| 1   | 1899.749       | 58.6                      | -33.9             | 9.7                      | 5.6                | -32.0           | -13.0          | 19.0           | Hori. | 100            | 289            | Horn            | X, Av:RMS-av                    |
| 2   | 2849.624       | 45.3                      | -47.0             | 10.8                     | 6.9                | -45.3           | -13.0          | 32.3           | Hori. | 100            | 292            | Horn            | X, Av:RMS-av                    |
| 3   | 3799.500       | 37.4                      | -55.0             | 12.0                     | 8.1                | -53.3           | -13.0          | 40.3           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 4   | 4749.375       | 36.9                      | -53.0             | 12.2                     | 9.1                | -52.1           | -13.0          | 39.1           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 5   | 5699.250       | 35.9                      | -50.0             | 12.3                     | 10.1               | -50.0           | -13.0          | 37.0           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 6   | 6649.125       | 35.8                      | -47.0             | 11.3                     | 10.9               | -48.8           | -13.0          | 35.8           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 7   | 7599.000       | 37.1                      | -45.0             | 10.4                     | 11.6               | -48.4           | -13.0          | 35.4           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 8   | 8548.875       | 38.4                      | -41.0             | 11.4                     | 12.4               | -44.2           | -13.0          | 31.2           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 9   | 9498.750       | 38.3                      | -39.0             | 11.0                     | 13.1               | -43.3           | -13.0          | 30.3           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 10  | 1899.749       | 57.0                      | -37.4             | 9.7                      | 5.6                | -35.5           | -13.0          | 22.5           | Vert. | 121            | 271            | Horn            | Y, Av:RMS-av                    |
| 11  | 2849.624       | 42.3                      | -54.9             | 10.8                     | 6.9                | -53.2           | -13.0          | 40.2           | Vert. | 122            | 268            | Horn            | Y, Av:RMS-av                    |
| 12  | 3799.500       | 37.3                      | -55.0             | 12.0                     | 8.1                | -53.3           | -13.0          | 40.3           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 13  | 4749.375       | 36.8                      | -54.0             | 12.2                     | 9.1                | -53.1           | -13.0          | 40.1           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 14  | 5699.250       | 35.8                      | -50.0             | 12.3                     | 10.1               | -50.0           | -13.0          | 37.0           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 15  | 6649.125       | 35.7                      | -47.0             | 11.3                     | 10.9               | -48.8           | -13.0          | 35.8           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 16  | 7599.000       | 37.0                      | -45.0             | 10.4                     | 11.6               | -48.4           | -13.0          | 35.4           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 17  | 8548.875       | 38.5                      | -42.0             | 11.4                     | 12.4               | -45.2           | -13.0          | 32.2           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 18  | 9498.750       | 38.4                      | -40.0             | 11.0                     | 13.1               | -44.3           | -13.0          | 31.3           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |

Calculation: Result [dBm] = SG level [dB] + Tx Ant Gain [dBi] - Tx Loss (Cable) [dB] - 2.15 [dB]  
 Tx Antenna: Horn (1G-40G) / Rx-Antenna: Horn (1G-40G)

**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber  
Date : 2015/04/29

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 946.125 MHz (Low power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 49 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |         |
| 1   | 174.437        | 28.8                      | -65.8             | 2.2                      | 12.9               | -78.7           | -13.0          | 65.7           | Hori. | 185            | 224            | Dipol           | RMS-av  |
| 2   | 650.500        | 20.4                      | -58.3             | 2.2                      | 16.1               | -74.4           | -13.0          | 61.4           | Hori. | 149            | 228            | Dipol           | RMS-av  |
| 3   | 184.785        | 15.7                      | -87.2             | 2.2                      | 13.0               | -100.2          | -13.0          | 87.2           | Vert. | 183            | 155            | Dipol           | RMS-av  |
| 4   | 650.500        | 19.4                      | -59.0             | 2.2                      | 16.1               | -75.1           | -13.0          | 62.1           | Vert. | 100            | 237            | Dipol           | RMS-av  |

**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.3 Semi-Anechoic Chamber  
Date : 2015/05/07

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 946.125 MHz (Low power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 42 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment                         |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------------------------------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |                                 |
| 1   | 1892.249       | 65.9                      | -46.9             | 9.7                      | 5.6                | -45.0           | -13.0          | 32.0           | Hori. | 100            | 291            | Horn            | X, Av:RMS-av                    |
| 2   | 2838.374       | 54.4                      | -54.3             | 10.8                     | 6.9                | -52.6           | -13.0          | 39.6           | Hori. | 100            | 292            | Horn            | X, Av:RMS-av                    |
| 3   | 3784.500       | 37.3                      | -76.0             | 12.0                     | 8.1                | -74.3           | -13.0          | 61.3           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 4   | 4730.625       | 37.2                      | -76.0             | 12.2                     | 9.1                | -75.1           | -13.0          | 62.1           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 5   | 5676.750       | 36.2                      | -70.0             | 12.3                     | 10.0               | -69.9           | -13.0          | 56.9           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 6   | 6622.875       | 36.4                      | -66.0             | 11.3                     | 10.8               | -67.7           | -13.0          | 54.7           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 7   | 7569.000       | 37.4                      | -65.0             | 10.4                     | 11.6               | -68.4           | -13.0          | 55.4           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 8   | 8515.125       | 38.0                      | -64.0             | 11.4                     | 12.4               | -67.2           | -13.0          | 54.2           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 9   | 9461.250       | 38.2                      | -61.5             | 11.0                     | 13.1               | -65.8           | -13.0          | 52.8           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 10  | 1892.249       | 64.4                      | -50.4             | 9.7                      | 5.6                | -48.5           | -13.0          | 35.5           | Vert. | 120            | 269            | Horn            | Y, Av:RMS-av                    |
| 11  | 2838.374       | 51.6                      | -53.5             | 10.8                     | 6.9                | -51.8           | -13.0          | 38.8           | Vert. | 122            | 271            | Horn            | Y, Av:RMS-av                    |
| 12  | 3784.500       | 37.2                      | -76.5             | 12.0                     | 8.1                | -74.8           | -13.0          | 61.8           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 13  | 4730.625       | 37.1                      | -76.0             | 12.2                     | 9.1                | -75.1           | -13.0          | 62.1           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 14  | 5676.750       | 36.1                      | -70.0             | 12.3                     | 10.0               | -69.9           | -13.0          | 56.9           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 15  | 6622.875       | 36.3                      | -66.0             | 11.3                     | 10.8               | -67.7           | -13.0          | 54.7           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 16  | 7569.000       | 37.3                      | -65.0             | 10.4                     | 11.6               | -68.4           | -13.0          | 55.4           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 17  | 8515.125       | 37.9                      | -65.0             | 11.4                     | 12.4               | -68.2           | -13.0          | 55.2           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 18  | 9461.250       | 38.1                      | -63.0             | 11.0                     | 13.1               | -67.3           | -13.0          | 54.3           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |

Calculation: Result [dBm] = SG level [dB] + Tx Ant Gain [dBi] - Tx Loss (Cable) [dB] - 2.15 [dB]  
 Tx Antenna: Horn (1G-40G) / Rx-Antenna: Horn (1G-40G)

**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.1 Semi-Anechoic Chamber  
Date : 2015/04/29

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 949.875 MHz (Low power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 49 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |         |
| 1   | 174.427        | 28.7                      | -66.0             | 2.2                      | 12.9               | -78.9           | -13.0          | 65.9           | Hori. | 184            | 222            | Dipol           | RMS-av  |
| 2   | 653.000        | 20.3                      | -58.6             | 2.2                      | 16.1               | -74.7           | -13.0          | 61.7           | Hori. | 148            | 232            | Dipol           | RMS-av  |
| 3   | 184.449        | 15.9                      | -87.1             | 2.2                      | 13.0               | -100.1          | -13.0          | 87.1           | Vert. | 182            | 157            | Dipol           | RMS-av  |
| 4   | 653.000        | 19.3                      | -58.9             | 2.2                      | 16.1               | -75.0           | -13.0          | 62.0           | Vert. | 100            | 230            | Dipol           | RMS-av  |

**DATA OF RADIATED EMISSION (SUBSTITUTION) TEST**UL Japan, Inc. Shonan EMC Lab. No.3 Semi-Anechoic Chamber  
Date : 2015/05/07

Company : Audio-Technica Corporation  
 Kind of EUT : UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model No. : ATW-T6001 S  
 Serial No. : US002  
 Remarks : EUT axis: H: X, V: Y

Mode : Tx, CW, 949.875 MHz (Low power)  
 Order No. : 10762851S  
 Power : DC 3 V (battery)  
 Temp./Humi. : 25 deg.C / 42 %RH

Limit : FCC 74.861 (e) (6) -13dBm ERP

Engineer : Kenichi Adachi

## &lt;&lt; ERP DATA &gt;&gt;

| No. | Freq.<br>[MHz] | Reading<br><AV><br>[dBuV] | SG Level<br>[dBm] | TX<br>Ant. Gain<br>[dBi] | TX<br>Loss<br>[dB] | ERP             |                | Margin<br>[dB] | Pola. | Height<br>[cm] | Angle<br>[deg] | TX<br>Ant. Type | Comment                         |
|-----|----------------|---------------------------|-------------------|--------------------------|--------------------|-----------------|----------------|----------------|-------|----------------|----------------|-----------------|---------------------------------|
|     |                |                           |                   |                          |                    | Result<br>[dBm] | Limit<br>[dBm] |                |       |                |                |                 |                                 |
| 1   | 1899.749       | 71.6                      | -40.7             | 9.7                      | 5.6                | -38.8           | -13.0          | 25.8           | Hori. | 100            | 290            | Horn            | X, Av:RMS-av                    |
| 2   | 2849.624       | 61.5                      | -47.2             | 10.8                     | 6.9                | -45.5           | -13.0          | 32.5           | Hori. | 100            | 291            | Horn            | X, Av:RMS-av                    |
| 3   | 3799.500       | 37.5                      | -76.0             | 12.0                     | 8.1                | -74.3           | -13.0          | 61.3           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 4   | 4749.375       | 37.0                      | -76.0             | 12.2                     | 9.1                | -75.1           | -13.0          | 62.1           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 5   | 5699.250       | 36.0                      | -70.0             | 12.3                     | 10.1               | -70.0           | -13.0          | 57.0           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 6   | 6649.125       | 35.9                      | -66.0             | 11.3                     | 10.9               | -67.8           | -13.0          | 54.8           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 7   | 7599.000       | 37.2                      | -65.0             | 10.4                     | 11.6               | -68.4           | -13.0          | 55.4           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 8   | 8548.875       | 38.5                      | -64.0             | 11.4                     | 12.4               | -67.2           | -13.0          | 54.2           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 9   | 9498.750       | 38.4                      | -61.0             | 11.0                     | 13.1               | -65.3           | -13.0          | 52.3           | Hori. | 100            | 0              | Horn            | X, Av:RMS-av, noise floor level |
| 10  | 1899.749       | 70.5                      | -41.8             | 9.7                      | 5.6                | -39.9           | -13.0          | 26.9           | Vert. | 119            | 269            | Horn            | Y, Av:RMS-av                    |
| 11  | 2849.624       | 60.6                      | -44.5             | 10.8                     | 6.9                | -42.8           | -13.0          | 29.8           | Vert. | 120            | 271            | Horn            | Y, Av:RMS-av                    |
| 12  | 3799.500       | 37.4                      | -76.5             | 12.0                     | 8.1                | -74.8           | -13.0          | 61.8           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 13  | 4749.375       | 36.9                      | -76.0             | 12.2                     | 9.1                | -75.1           | -13.0          | 62.1           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 14  | 5699.250       | 35.9                      | -70.0             | 12.3                     | 10.1               | -70.0           | -13.0          | 57.0           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 15  | 6649.125       | 35.8                      | -66.0             | 11.3                     | 10.9               | -67.8           | -13.0          | 54.8           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 16  | 7599.000       | 37.1                      | -65.0             | 10.4                     | 11.6               | -68.4           | -13.0          | 55.4           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 17  | 8548.875       | 38.4                      | -64.5             | 11.4                     | 12.4               | -67.7           | -13.0          | 54.7           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |
| 18  | 9498.750       | 38.3                      | -63.0             | 11.0                     | 13.1               | -67.3           | -13.0          | 54.3           | Vert. | 100            | 0              | Horn            | Y, Av:RMS-av, noise floor level |

Calculation: Result [dBm] = SG level [dB] + Tx Ant Gain [dBi] - Tx Loss (Cable) [dB] - 2.15 [dB]  
 Tx Antenna: Horn (1G-40G) / Rx-Antenna: Horn (1G-40G)

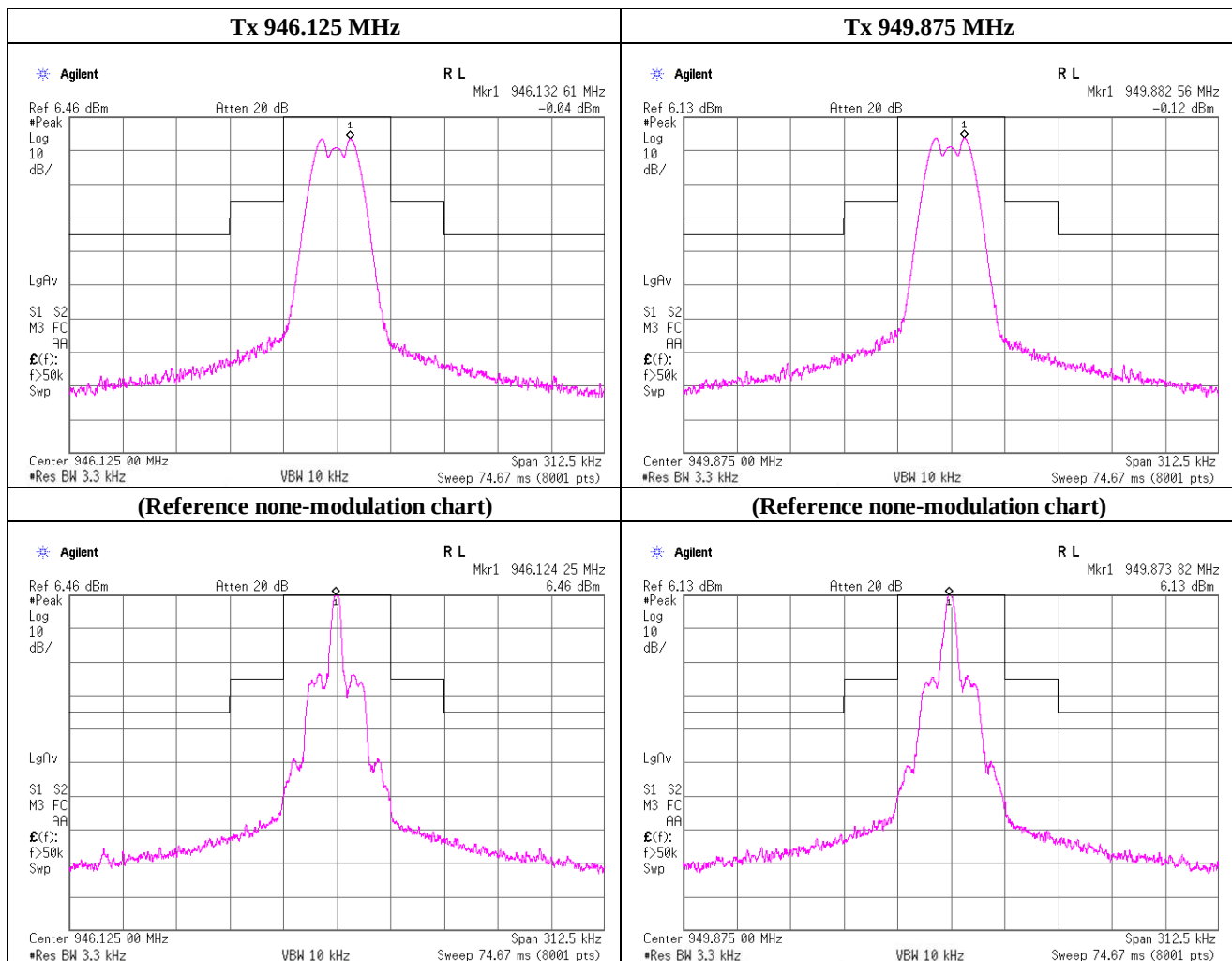


## Field strength of spurious radiation (Emission masks)

Company Audio-Technica Corporation  
 Equipment UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model ATW-T6001 S  
 Serial No. US002  
 Power DC 3 V  
 Mode Transmitting High power  
 modulation at 2.5kHz at 16dB over 50%

UL Japan, Inc. Shonan EMC Lab.  
 No.5 Shielded Room

Regulation FCC part 74, section 74.861(e)(6)  
 Date May 1, 2015  
 Temperature 25 deg.C  
 Humidity 47 %RH  
 ENGINEER Kenichi Adachi



**UL Japan, Inc.**

**Shonan EMC Lab.**

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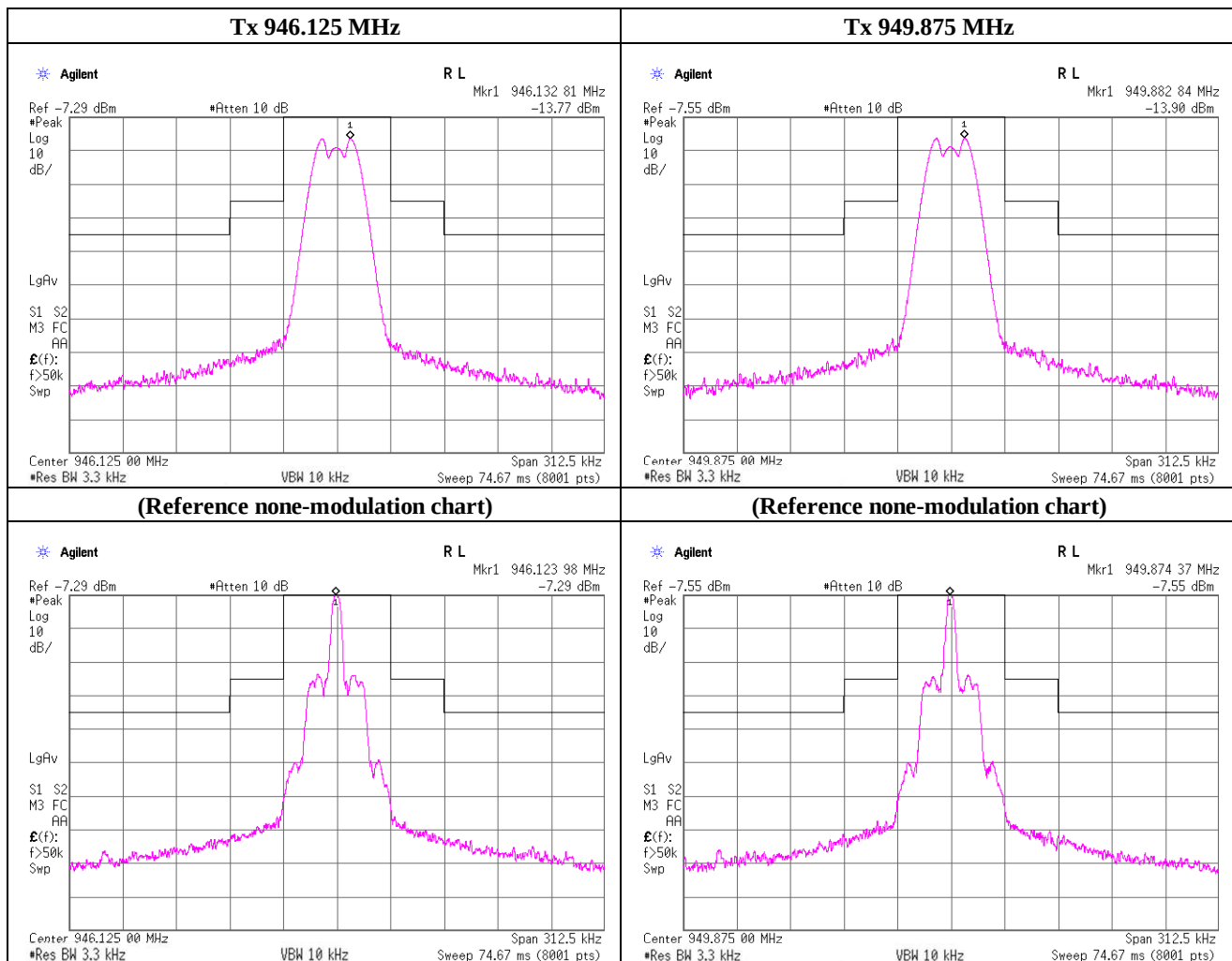
Facsimile : +81 463 50 6401

## Field strength of spurious radiation (Emission masks)

Company Audio-Technica Corporation  
 Equipment UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model ATW-T6001 S  
 Serial No. US002  
 Power DC 3 V  
 Mode Transmitting Low power  
 modulation at 2.5kHz at 16dB over 50%

UL Japan, Inc. Shonan EMC Lab.  
 No.5 Shielded Room

Regulation FCC part 74, section 74.861(e)(6)  
 Date May 1, 2015  
 Temperature 25 deg.C  
 Humidity 47 %RH  
 ENGINEER Kenichi Adachi



**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

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Revised date : November 11, 2015

## Frequency Stability

Company Audio-Technica Corporation  
 Equipment UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model ATW-T6001 S  
 Serial No. US002  
 Power DC 3 V  
 Mode Transmitting 946.125 MHz

UL Japan, Inc.  
 Shonan EMC Lab. No.5 Shielded room  
 Regulation FCC part 74 section 74.861(e)(4)

Date May 11, 2015  
 Temperature 25 deg.C  
 Humidity 32 %RH  
 ENGINEER Yosuke Ishikawa

High power (\*High power mode and Low power mode same tolerance)

### Temperature Variation: -30 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124636              | -0.000364             | -0.00004                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124562              | -0.000438             | -0.00005                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124728              | -0.000272             | -0.00003                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124856              | -0.000144             | -0.00002                | 0.005     |

(reference)

difference by  
data of normal  
condition

0.0486 ppm

-0.0211 ppm

0.1564 ppm

0.2928 ppm

### Temperature Variation: -20 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124391              | -0.000609             | -0.00006                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124324              | -0.000676             | -0.00007                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124352              | -0.000648             | -0.00007                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124340              | -0.000660             | -0.00007                | 0.005     |

-0.2103 ppm

-0.2727 ppm

-0.2410 ppm

-0.2526 ppm

### Temperature Variation: -10 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124240              | -0.000760             | -0.00008                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124234              | -0.000766             | -0.00008                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124234              | -0.000766             | -0.00008                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124234              | -0.000766             | -0.00008                | 0.005     |

-0.3699 ppm

-0.3678 ppm

-0.3657 ppm

-0.3646 ppm

### Temperature Variation: 0 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124313              | -0.000687             | -0.00007                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124326              | -0.000674             | -0.00007                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124369              | -0.000631             | -0.00007                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124374              | -0.000626             | -0.00007                | 0.005     |

-0.2928 ppm

-0.2706 ppm

-0.2230 ppm

-0.2167 ppm

### Temperature Variation: 10 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124517              | -0.000483             | -0.00005                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124590              | -0.000410             | -0.00004                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124592              | -0.000408             | -0.00004                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124596              | -0.000404             | -0.00004                | 0.005     |

-0.0772 ppm

0.0085 ppm

0.0127 ppm

0.0180 ppm

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## Frequency Stability

### Temperature Variation: 20 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124590              | -0.000410             | -0.00004                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124582              | -0.000418             | -0.00004                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124580              | -0.000420             | -0.00004                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124579              | -0.000421             | -0.00004                | 0.005     |

(reference)  
difference by  
data of normal  
condition

### Temperature Variation: 30 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124478              | -0.000522             | -0.00006                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124433              | -0.000567             | -0.00006                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124423              | -0.000577             | -0.00006                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124422              | -0.000578             | -0.00006                | 0.005     |

-0.1184 ppm  
-0.1575 ppm  
-0.1659 ppm  
-0.1659 ppm

### Temperature Variation: 40 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124218              | -0.000782             | -0.00008                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124185              | -0.000815             | -0.00009                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124186              | -0.000814             | -0.00009                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124185              | -0.000815             | -0.00009                | 0.005     |

-0.3932 ppm  
-0.4196 ppm  
-0.4164 ppm  
-0.4164 ppm

### Temperature Variation: 50 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124016              | -0.000984             | -0.00010                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.123957              | -0.001043             | -0.00011                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.123947              | -0.001053             | -0.00011                | 0.005     |
| after 10 minutes | 946.1250                 | 946.123941              | -0.001059             | -0.00011                | 0.005     |

-0.6067 ppm  
-0.6606 ppm  
-0.6690 ppm  
-0.6743 ppm

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Revised date : November 11, 2015

## Frequency Stability

Company Audio-Technica Corporation  
 Equipment UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model ATW-T6001 S  
 Serial No. US002  
 Power DC 3 V  
 Mode Transmitting 949.875 MHz

UL Japan, Inc.  
 Shonan EMC Lab. No.5 Shielded room  
 Regulation FCC part 74 section 74.861(e)(4)  
 Date May 11, 2015  
 Temperature 25 deg.C  
 Humidity 32 %RH  
 ENGINEER Yosuke Ishikawa

High power (\*High power mode and Low power mode same tolerance)

**Temperature Variation: -30 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874852              | -0.000148             | -0.00002                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874873              | -0.000127             | -0.00001                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874879              | -0.000121             | -0.00001                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874897              | -0.000103             | -0.00001                | 0.005     |

(reference)  
 difference by  
 data of normal  
 condition  
 0.2579 ppm  
 0.2958 ppm  
 0.3085 ppm  
 0.3316 ppm

**Temperature Variation: -20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874442              | -0.000558             | -0.00006                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874339              | -0.000661             | -0.00007                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874346              | -0.000654             | -0.00007                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874326              | -0.000674             | -0.00007                | 0.005     |

-0.1737 ppm  
 -0.2664 ppm  
 -0.2527 ppm  
 -0.2695 ppm

**Temperature Variation: -10 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874236              | -0.000764             | -0.00008                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874234              | -0.000766             | -0.00008                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874226              | -0.000774             | -0.00008                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874227              | -0.000773             | -0.00008                | 0.005     |

-0.3906 ppm  
 -0.3769 ppm  
 -0.3790 ppm  
 -0.3737 ppm

**Temperature Variation: 0 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874332              | -0.000668             | -0.00007                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874346              | -0.000654             | -0.00007                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874325              | -0.000675             | -0.00007                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874316              | -0.000684             | -0.00007                | 0.005     |

-0.2895 ppm  
 -0.2590 ppm  
 -0.2748 ppm  
 -0.2800 ppm

**Temperature Variation: 10 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874573              | -0.000427             | -0.00004                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874593              | -0.000407             | -0.00004                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874594              | -0.000406             | -0.00004                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874592              | -0.000408             | -0.00004                | 0.005     |

-0.0358 ppm  
 0.0011 ppm  
 0.0084 ppm  
 0.0105 ppm

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## Frequency Stability

### Temperature Variation: 20 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874607              | -0.000393             | -0.00004                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874592              | -0.000408             | -0.00004                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874586              | -0.000414             | -0.00004                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874582              | -0.000418             | -0.00004                | 0.005     |

(reference)  
difference by  
data of normal  
condition

### Temperature Variation: 30 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874438              | -0.000562             | -0.00006                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874423              | -0.000577             | -0.00006                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874426              | -0.000574             | -0.00006                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874426              | -0.000574             | -0.00006                | 0.005     |

-0.1779 ppm  
-0.1779 ppm  
-0.1684 ppm  
-0.1642 ppm

### Temperature Variation: 40 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874276              | -0.000724             | -0.00008                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874207              | -0.000793             | -0.00008                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874194              | -0.000806             | -0.00008                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874185              | -0.000815             | -0.00009                | 0.005     |

-0.3485 ppm  
-0.4053 ppm  
-0.4127 ppm  
-0.4179 ppm

### Temperature Variation: 50 deg.C

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.873960              | -0.001040             | -0.00011                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.873940              | -0.001060             | -0.00011                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.873938              | -0.001062             | -0.00011                | 0.005     |
| after 10 minutes | 949.8750                 | 949.873939              | -0.001061             | -0.00011                | 0.005     |

-0.6811 ppm  
-0.6864 ppm  
-0.6822 ppm  
-0.6769 ppm

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Revised date : November 11, 2015

## Frequency Stability

Company Audio-Technica Corporation  
 Equipment UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model ATW-T6001 S  
 Serial No. US002  
 Power DC 3 V  
 Mode Transmitting 946.125 MHz

UL Japan, Inc.  
 Shonan EMC Lab. No.5 Shielded room  
 Regulation FCC part 74 section 74.861(e)(4)  
 Date May 10, 2015  
 Temperature 25 deg.C  
 Humidity 47 %RH  
 ENGINEER Kenichi Adachi

High power (\*High power mode and Low power mode same tolerance)

**Voltage Variation: DC 3.45 V (Reference data)****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) | (reference) difference by data of normal condition |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|----------------------------------------------------|
| startup          | 946.1250                 | 946.124457              | -0.000543             | -0.00006                | 0.005     | -0.0815 ppm                                        |
| after 2 minutes  | 946.1250                 | 946.124452              | -0.000548             | -0.00006                | 0.005     | -0.0656 ppm                                        |
| after 5 minutes  | 946.1250                 | 946.124451              | -0.000549             | -0.00006                | 0.005     | -0.0499 ppm                                        |
| after 10 minutes | 946.1250                 | 946.124449              | -0.000551             | -0.00006                | 0.005     | -0.0303 ppm                                        |

**Voltage Variation: DC 3 V****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 946.1250                 | 946.124534              | -0.000466             | -0.00005                | 0.005     |
| after 2 minutes  | 946.1250                 | 946.124515              | -0.000485             | -0.00005                | 0.005     |
| after 5 minutes  | 946.1250                 | 946.124498              | -0.000502             | -0.00005                | 0.005     |
| after 10 minutes | 946.1250                 | 946.124478              | -0.000522             | -0.00006                | 0.005     |

**Voltage Variation: DC 2.55 V (Reference data)****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |             |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|-------------|
| startup          | 946.1250                 | 946.124472              | -0.000528             | -0.00006                | 0.005     | -0.0657 ppm |
| after 2 minutes  | 946.1250                 | 946.124463              | -0.000537             | -0.00006                | 0.005     | -0.0547 ppm |
| after 5 minutes  | 946.1250                 | 946.124461              | -0.000539             | -0.00006                | 0.005     | -0.0391 ppm |
| after 10 minutes | 946.1250                 | 946.124460              | -0.000540             | -0.00006                | 0.005     | -0.0193 ppm |

**Voltage Variation (end point voltage) : DC 1.8 V****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance Limit | Limit |             |
|------------------|--------------------------|-------------------------|-----------------------|---------------------------|-------|-------------|
| startup          | 946.1250                 | 946.124464              | -0.000536             | -0.00006                  | 0.005 | -0.0737 ppm |
| after 2 minutes  | 946.1250                 | 946.124451              | -0.000549             | -0.00006                  | 0.005 | -0.0670 ppm |
| after 5 minutes  | 946.1250                 | 946.124457              | -0.000543             | -0.00006                  | 0.005 | -0.0437 ppm |
| after 10 minutes | 946.1250                 | 946.124457              | -0.000543             | -0.00006                  | 0.005 | -0.0219 ppm |

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Revised date : November 11, 2015

## Frequency Stability

Company Audio-Technica Corporation  
 Equipment UHF SYNTHESIZED WIRELESS TRANSMITTER  
 Model ATW-T6001 S  
 Serial No. US002  
 Power DC 3 V  
 Mode Transmitting 949.875 MHz

UL Japan, Inc.

Shonan EMC Lab. No.5 Shielded room

Regulation FCC part 74 section 74.861(e)(4)

Date May 10, 2015

Temperature 25 deg.C

Humidity 47 %RH

ENGINEER Kenichi Adachi

High power (\*High power mode and Low power mode same tolerance)

**Voltage Variation: DC 3.45 V (Reference data)****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) | (reference) difference by data of normal condition |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|----------------------------------------------------|
| startup          | 949.8750                 | 949.874473              | -0.000527             | -0.00006                | 0.005     | -0.0127 ppm                                        |
| after 2 minutes  | 949.8750                 | 949.874465              | -0.000535             | -0.00006                | 0.005     | -0.0152 ppm                                        |
| after 5 minutes  | 949.8750                 | 949.874460              | -0.000540             | -0.00006                | 0.005     | -0.0159 ppm                                        |
| after 10 minutes | 949.8750                 | 949.874456              | -0.000544             | -0.00006                | 0.005     | -0.0106 ppm                                        |

**Voltage Variation: DC 3 V****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|
| startup          | 949.8750                 | 949.874485              | -0.000515             | -0.00005                | 0.005     |
| after 2 minutes  | 949.8750                 | 949.874480              | -0.000520             | -0.00005                | 0.005     |
| after 5 minutes  | 949.8750                 | 949.874475              | -0.000525             | -0.00006                | 0.005     |
| after 10 minutes | 949.8750                 | 949.874466              | -0.000534             | -0.00006                | 0.005     |

**Voltage Variation: DC 2.55 V (Reference data)****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance (%) | Limit (%) |             |
|------------------|--------------------------|-------------------------|-----------------------|-------------------------|-----------|-------------|
| startup          | 949.8750                 | 949.874460              | -0.000540             | -0.00006                | 0.005     | -0.0260 ppm |
| after 2 minutes  | 949.8750                 | 949.874456              | -0.000544             | -0.00006                | 0.005     | -0.0250 ppm |
| after 5 minutes  | 949.8750                 | 949.874455              | -0.000545             | -0.00006                | 0.005     | -0.0209 ppm |
| after 10 minutes | 949.8750                 | 949.874456              | -0.000544             | -0.00006                | 0.005     | -0.0105 ppm |

**Voltage Variation (end point voltage) : DC 1.8 V****Temperature Variation: 20 deg.C**

| Test Conditions  | Original Frequency (MHz) | Measure Frequency (MHz) | Frequency Error (MHz) | Frequency tolerance Limit | Limit |             |
|------------------|--------------------------|-------------------------|-----------------------|---------------------------|-------|-------------|
| startup          | 949.8750                 | 949.874486              | -0.000514             | -0.00005                  | 0.005 | 0.0007 ppm  |
| after 2 minutes  | 949.8750                 | 949.874470              | -0.000530             | -0.00006                  | 0.005 | -0.0105 ppm |
| after 5 minutes  | 949.8750                 | 949.874466              | -0.000534             | -0.00006                  | 0.005 | -0.0095 ppm |
| after 10 minutes | 949.8750                 | 949.874462              | -0.000538             | -0.00006                  | 0.005 | -0.0043 ppm |

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## APPENDIX 2

### Test Instruments

#### EMI test equipment (1/2)

| Control No.                    | Instrument                         | Manufacturer                                | Model No                                   | Serial No               | Test Item | Calibration Date<br>* Interval(month) |
|--------------------------------|------------------------------------|---------------------------------------------|--------------------------------------------|-------------------------|-----------|---------------------------------------|
| MRS-01                         | Radiocommunication Service Monitor | Rohde & Schwarz                             | CMS54                                      | 840.0009.54             | AT        | 2015/03/10 * 12                       |
| KFG-02                         | Programmable Function Generator    | Thurlby Thandar                             | TG1304                                     | 156125                  | AT        | Pre Check                             |
| SPM-06                         | Power Meter                        | Anritsu                                     | ML2495A                                    | 0850009                 | AT        | 2015/04/07 * 12                       |
| SPSS-01                        | Power Sensor                       | Anritsu                                     | MA2444D                                    | 0738366                 | AT        | 2015/04/07 * 12                       |
| SSA-03                         | Spectrum Analyzer                  | Agilent                                     | E4448A                                     | MY48250152              | AT        | 2015/02/24 * 12                       |
| SAT10-09                       | Attenuator                         | Weinschel Corp.                             | 54A-10                                     | W5692                   | AT        | 2014/11/21 * 12                       |
| SCC-G13                        | Coaxial Cable                      | Suhner                                      | SUCOFLEX 102                               | 31599/2                 | AT        | 2015/03/11 * 12                       |
| SOS-09                         | Humidity Indicator                 | A&D                                         | AD-5681                                    | 4061484                 | AT        | 2014/12/24 * 12                       |
| SAEC-01(NSA)                   | Semi-Anechoic Chamber              | TDK                                         | SAEC-01(NSA)                               | 1                       | RE        | 2014/07/09 * 12                       |
| SBA-01                         | Biconical Antenna                  | Schwarzbeck                                 | BBA9106                                    | 91032664                | RE        | 2014/10/18 * 12                       |
| KAT6-04                        | Attenuator                         | INMET                                       | 18N-6dB                                    | -                       | RE        | 2014/12/19 * 12                       |
| SCC-A1/A3/A5/A7/A8/A13/SRSE-01 | Coaxial Cable&RF Selector          | Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO | 8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906 | -/0901-269(RF Selector) | RE        | 2015/04/17 * 12                       |
| SLA-01                         | Logperiodic Antenna                | Schwarzbeck                                 | UHALP9108A                                 | UHALP 9108-A 0888       | RE        | 2014/10/18 * 12                       |
| SAT10-01                       | Attenuator                         | JFW                                         | 50HF-010N                                  | -                       | RE        | 2015/02/18 * 12                       |
| SAT3-09                        | Attenuator                         | JFW                                         | 50HF-003N                                  | -                       | RE        | 2014/09/02 * 12                       |
| SCC-A2/A4/A6/A7/A8/A13/SRSE-01 | Coaxial Cable&RF Selector          | Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO | 8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906 | -/0901-269(RF Selector) | RE        | 2015/04/17 * 12                       |
| SAF-01                         | Pre Amplifier                      | SONOMA                                      | 310N                                       | 290211                  | RE        | 2015/02/18 * 12                       |
| STR-01                         | Test Receiver                      | Rohde & Schwarz                             | ESU40                                      | 100093                  | RE        | 2014/11/11 * 12                       |
| SOS-01                         | Humidity Indicator                 | A&D                                         | AD-5681                                    | 4062555                 | RE        | 2014/10/30 * 12                       |
| SJM-13                         | Measure                            | ASKUL                                       | -                                          | -                       | RE        | -                                     |
| COTS-SEMI-1                    | EMI Software                       | TSJ                                         | TEPTO-DV(RE,CE, RFLMF)                     | -                       | RE        | -                                     |
| SSG-02                         | Signal Generator                   | Agilent                                     | E8257D-540                                 | MY48051404              | RE        | 2015/03/02 * 12                       |
| SCC-07                         | Coaxial Cable                      | Fujikura                                    | 5D2W                                       | -                       | RE        | 2014/09/09 * 12                       |
| SDA-07                         | Dipole Antenna                     | Schwarzbeck                                 | VHAP                                       | 1177                    | RE        | 2015/03/11 * 12                       |
| SDA-08                         | Dipole Antenna                     | Schwarzbeck                                 | UHAP                                       | 1158                    | RE        | 2015/03/11 * 12                       |
| SAEC-03(NSA)                   | Semi-Anechoic Chamber              | TDK                                         | SAEC-03(NSA)                               | 3                       | RE        | 2014/07/14 * 12                       |
| SHA-03                         | Horn Antenna                       | Schwarzbeck                                 | BBHA9120D                                  | 9120D-739               | RE        | 2014/08/12 * 12                       |
| SCC-G04                        | Coaxial Cable                      | Junkosha                                    | J12J102207-00                              | JUN-12-14-018           | RE        | 2014/06/24 * 12                       |
| SAT20-01                       | Attenuator(above1GHz)              | Agilent                                     | 8493C-020                                  | 74889                   | RE        | 2014/11/21 * 12                       |
| SFL-01                         | Highpass Filter                    | MICRO-TRONICS                               | HPM50115                                   | 001                     | RE        | 2014/11/21 * 12                       |
| SAF-06                         | Pre Amplifier                      | TOYO Corporation                            | TPA0118-36                                 | 1440491                 | RE        | 2014/05/23 * 12                       |
| SCC-G23                        | Coaxial Cable                      | Suhner                                      | SUCOFLEX 104                               | 297342/4                | RE        | 2014/05/15 * 12                       |
| SSA-02                         | Spectrum Analyzer                  | Agilent                                     | E4448A                                     | MY48250106              | RE        | 2015/03/26 * 12                       |
| SOS-05                         | Humidity Indicator                 | A&D                                         | AD-5681                                    | 4062518                 | RE        | 2014/10/30 * 12                       |
| SJM-15                         | Measure                            | ASKUL                                       | -                                          | -                       | RE        | -                                     |
|                                |                                    |                                             |                                            |                         |           |                                       |
|                                |                                    |                                             |                                            |                         |           |                                       |

The expiration date of the calibration is the end of the expired month .

As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

All equipment is calibrated with valid calibrations . Each measurement data is traceable to the national or international standards .

Test Item :

RE: Radiated emission tests ,

AT: Antenna terminal conducted tests

## APPENDIX 2

### Test Instruments

#### EMI test equipment (2/2)

| Control No.                    | Instrument                       | Manufacturer                                | Model No                                   | Serial No               | Test Item | Calibration Date *<br>Interval(month) |
|--------------------------------|----------------------------------|---------------------------------------------|--------------------------------------------|-------------------------|-----------|---------------------------------------|
| SCC-G16                        | Coaxial Cable                    | Suhner                                      | SUCOFLEX 102                               | 32704/2                 | RE        | 2015/03/11 * 12                       |
| SHA-RS01                       | Horn Antenna                     | Schwarzbeck                                 | BBHA9120D                                  | 770                     | RE        | 2014/08/12 * 12                       |
| SLP-02                         | Loop Antenna                     | Rohde & Schwarz                             | HFH2-Z2                                    | 100218                  | RE        | 2014/11/30 * 12                       |
| SAT6-08                        | Attenuator                       | HIROSE ELECTRIC CO.,LTD.                    | AT-406(40)                                 | -                       | RE        | 2014/08/27 * 12                       |
| SCC-C1/C2/C3/C4/C5/C10/SRSE-03 | Coaxial Cable&RF Selector        | Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO | 8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906 | -/0901-271(RF Selector) | RE        | 2015/04/17 * 12                       |
| SAF-03                         | Pre Amplifier                    | SONOMA                                      | 310N                                       | 290213                  | RE        | 2015/02/18 * 12                       |
| STR-06                         | Test Receiver                    | Rohde & Schwarz                             | ESCI                                       | 101259                  | RE        | 2015/03/24 * 12                       |
| STS-05                         | Digital Hitester                 | Hioki                                       | 3805-50                                    | 080997828               | AT        | 2014/11/11 * 12                       |
| SCH-01                         | Temperature and Humidity Chamber | Espec                                       | PL-1KT                                     | 14020837                | AT        | 2015/04/22 * 12                       |
|                                |                                  |                                             |                                            |                         |           |                                       |
|                                |                                  |                                             |                                            |                         |           |                                       |

The expiration date of the calibration is the end of the expired month .

As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

All equipment is calibrated with valid calibrations . Each measurement data is traceable to the national or international standards .

Test Item :

RE: Radiated emission tests ,

AT: Antenna terminal conducted tests