



FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Two Button Remote

Model: IC2020TX

Trade Name: Instant Care

Issued to

**Instant Care, Inc.
2310 Cousteau Ct
Vista, CA 92081, USA**

Issued by

**Compliance Certification Services Inc.
No. 81-1, Lane 210, Pa-De 2nd Rd., Luchu Hsiang,
Taoyuan Shien, (338) Taiwan, R.O.C.
TEL: 886-3-324-0332
FAX: 886-3-324-5235
<http://www.ccsrf.com>
service@ccsrf.com**



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Revision History

| Rev. | Issue Date | Revisions | Effect Page | Revised By |
|------|--------------------|---------------|-------------|------------|
| 00 | September 10, 2009 | Initial Issue | ALL | Jill Shiau |
| | | | | |
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TABLE OF CONTENTS

1 TEST RESULT CERTIFICATION..... 4

2 EUT DESCRIPTION 5

3 TEST METHODOLOGY 6

3.1. EUT CONFIGURATION 6

3.2. EUT EXERCISE 6

3.3. GENERAL TEST PROCEDURES 6

3.4. FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS 7

3.5. DESCRIPTION OF TEST MODES 7

4 INSTRUMENT CALIBRATION..... 8

4.1. MEASURING INSTRUMENT CALIBRATION 8

4.2. MEASUREMENT EQUIPMENT USED 8

4.3. MEASUREMENT UNCERTAINTY 8

5 FACILITIES AND ACCREDITATIONS..... 9

5.1 FACILITIES..... 9

5.2 EQUIPMENT 9

5.3 TABLE OF ACCREDITATIONS AND LISTINGS..... 10

6 SETUP OF EQUIPMENT UNDER TEST..... 11

6.1. SETUP CONFIGURATION OF EUT 11

6.2. SUPPORT EQUIPMENT 11

7 FCC PART 15.231 REQUIREMENTS 12

7.1. 20dB BANDWIDTH 12

7.2. LIMIT OF TRANSMISSION TIME..... 14

7.3. DUTY CYCLE 16

7.4. SPURIOUS EMISSIONS 18

7.5. POWERLINE CONDUCTED EMISSIONS 24

APPENDIX I PHOTOGRAPHS OF TEST SETUP..... 25



1 TEST RESULT CERTIFICATION

Applicant: Instant Care, Inc.
2310 Cousteau Ct Vista, CA 92081, USA

Manufacturer: CLIMAX TECHNOLOGY CO., LTD.
No. 258, Hsin Hu 2nd Road, Taipei 114, Taiwan

Equipment Under Test: Two Button Remote

Trade Name: Instant Care

Model: IC2020TX

Date of Test: August 27 ~ September 2, 2009

| APPLICABLE STANDARDS | |
|------------------------------|-------------------------|
| STANDARD | TEST RESULT |
| FCC 47 CFR Part 15 Subpart C | No non-compliance noted |

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.231(a).

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

 David Wang
 Director
 Compliance Certification Services Inc.

Reviewed by:

 Ethan Huang
 Section Manager
 Compliance Certification Services Inc.



2 EUT DESCRIPTION

| | |
|-----------------------------|-------------------|
| Product | Two Button Remote |
| Trade Name | Instant Care |
| Model Number | IC2020TX |
| EUT Power Rating | 3VDC from Battery |
| Frequency Range | 433MHz |
| Output Power | 77.8dBuV/m |
| Modulation Technique | ASK Modulation |
| Antenna Designation | PCB Antenna |

Remark:

1. The sample selected for test was production product and was provided by manufacturer.
2. This submittal(s) (test report) is intended for FCC ID: **XO82020TX1** filing to comply with Section 15.207, 15.209 and 15.231(a) of the FCC Part 15, Subpart C Rules.



3 TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 (2003) and FCC CFR 47 Part 2, 15.207, 15.209 and 15.231(a).

3.1. EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2. EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

3.3. GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 (2003) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4 (2003).



3.4. FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Table with 4 columns: MHz, MHz, MHz, GHz. It lists various frequency ranges such as 0.090 - 0.110, 16.42 - 16.423, 399.9 - 410, and 4.5 - 5.15.

1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

2 Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

3.5. DESCRIPTION OF TEST MODES

The EUT(model: IC2020TX) had been tested under engineering test mode condition and the EUT staying in continuous transmitting mode.



4 INSTRUMENT CALIBRATION

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

4.2. MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Remark: Each piece of equipment is scheduled for calibration once a year.

| Conducted Emission Test Site | | | | |
|-------------------------------------|---------------------|--------------|----------------------|------------------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum Analyzer | Agilnet | E4446A | MY48250064 | 10/28/2009 |
| Spectrum Analyzer | R&S | FSEB | 825829/011 | 10/29/2009 |
| USB Power Sensor | BOONTON | 52012 | 2061194 | 06/08/2010 |

| 3M Chamber Test Site | | | | |
|-----------------------------|--|--------------|----------------------|------------------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum Analyzer | R&S | FSEB | 825829/011 | 10/29/2009 |
| Pre-Amplifier | HP | 8447D | 2944A06530 | 12/31/2009 |
| Pre-Amplifier | HP | 8449B | 3008A01738 | 04/17/2010 |
| EMI Test Receiver | SCHAFFNER | SCR 3501 | 436 | 01/21/2010 |
| Loop Antenna | EMCO | 6502 | 2356 | 05/28/2010 |
| Bilog Antenna | SCHWAZBECK | VULB9160 | 3084 | 09/08/2009 |
| Horn Antenna | EMCO | 3115 | 00022250 | 05/08/2010 |
| Turn Table | CCS | CC-T-1F | N/A | N.C.R |
| Antenna Tower | CCS | CC-A-1F | N/A | N.C.R |
| Controller | CCS | CC-C-1F | N/A | N.C.R |
| Test S/W | LabVIEW 6.1 (Wugu Chamber EMI Test V1_4.5.3) | | | |

4.3. MEASUREMENT UNCERTAINTY

| Parameter | Uncertainty |
|---|--------------------|
| Powerline Conducted Emission | ± 1.7983 |
| 3M Semi Anechoic Chamber / 30MHz ~ 1GHz | ± 3.8856 |
| 3M Semi Anechoic Chamber / Above 1GHz | ± 3.8721 |

Remark: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



5 FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

- No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

- No.11, Wugong 6th Rd., Wugu Industrial Park, Taipei Hsien 248, Taiwan
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

- No. 81-1, Lane 210, Pa-De 2nd Rd., Luchu Hsiang, Taoyuan Shien, (338) Taiwan,
R.O.C. Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2003) and CISPR Publication 22.

5.2 EQUIPMENT


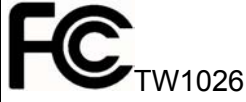


Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3 TABLE OF ACCREDITATIONS AND LISTINGS

| Country | Agency | Scope of Accreditation | Logo |
|---------|-----------------|--|---|
| USA | A2LA | CFR 47, FCC Part15/18, CISPR 22, EN 55022, ICES-003, AS/NZS CISPR 22, VCCI V-3, EN 55011, CISPR 11, IEC/EN 61000-4-2/3/4/5/6/8/11, EN 61000-6-1/2/3/4, EN 55024, CISPR 24, AS/NZS CISPR 24, AS/NZS 61000.6.2, EN 55014-1/-2, ETSI EN 300 386 v1.3.2/v1.3.3, IEC/EN 61000-3-2, AS/NZS 61000.3.2, IEC/EN 61000-3-3, AS/NZS 61000.3.3 |  ACCREDITED No. 0824-01 |
| USA | FCC MRA | 3/10 meter Open Area Test Sites to perform FCC Part 15/18 measurements |  FC TW1026 |
| Japan | VCCI | 3/10 meter Open Area Test Sites and conducted test sites to perform radiated/conducted measurements | VCCI R-2882/2541/2798/725/1868 C-402/747/912 T-321/325 |
| Taiwan | TAF | EN 55014-1, CISPR 14, CNS 13781-1, EN 55013, CISPR 13, CNS 13439, EN 55011, CISPR 11, CNS 13803, PLMN09, IS2045-0, LP0002 FCC Part 27/90, Part 15B/C/D/E, RSS-192/193/210/310 ETSI EN 300 328/ 300 220-1/ 300 220-2/ 301 893/ 301 489-01/ 301 489-03/ 301 489-07 / 301 489-17/ 300 440-1/ 300 440-2 AS/NZS 4268, AS/NZS 4771 CISPR 22, EN 55022, CNS 13438, AS/NZS CISPR 22, VCCI, IEC/EN 61000-4-2/3/4/5/6/8/11, CNS 14676-2/3/4/5/6/8, CNS 14934-2/3, CNS 13783-1, CNS 13439, CNS 13803 |  Testing Laboratory 0363 |
| Taiwan | BSMI | CNS 13438, CNS 13783-1, CNS 13439, CNS 14115 | SL2-IS-E-0014 / IN-E-0014 /A1-E-0014 /R1-E-0014 /R2-E-0014 /L1-E-0014 |
| Canada | Industry Canada | RSS212, Issue 1 |  IC 2324C-3 IC 2324C-5 |

Note: No part of this report may be used to claim or imply product endorsement by A2LA, TAF or other government agency.



6 SETUP OF EQUIPMENT UNDER TEST

6.1. SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

6.2. SUPPORT EQUIPMENT

| No. | Device Type | Brand | Model | Series No. | FCC ID | Data Cable | Power Cord |
|-----|-------------|-------|-------|------------|--------|------------|------------|
| | N/A | | | | | | |

****No any support equipment during the test.**

Remark: *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*



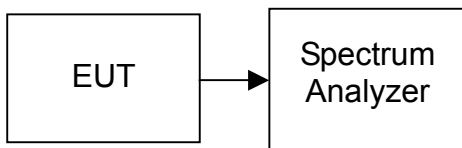
7 FCC PART 15.231 REQUIREMENTS

7.1. 20dB BANDWIDTH

LIMIT

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The spectrum analyzer center frequency is set to the transmitter frequency. The RBW is set to 10 kHz and VBW is set 30kHz.

TEST RESULTS

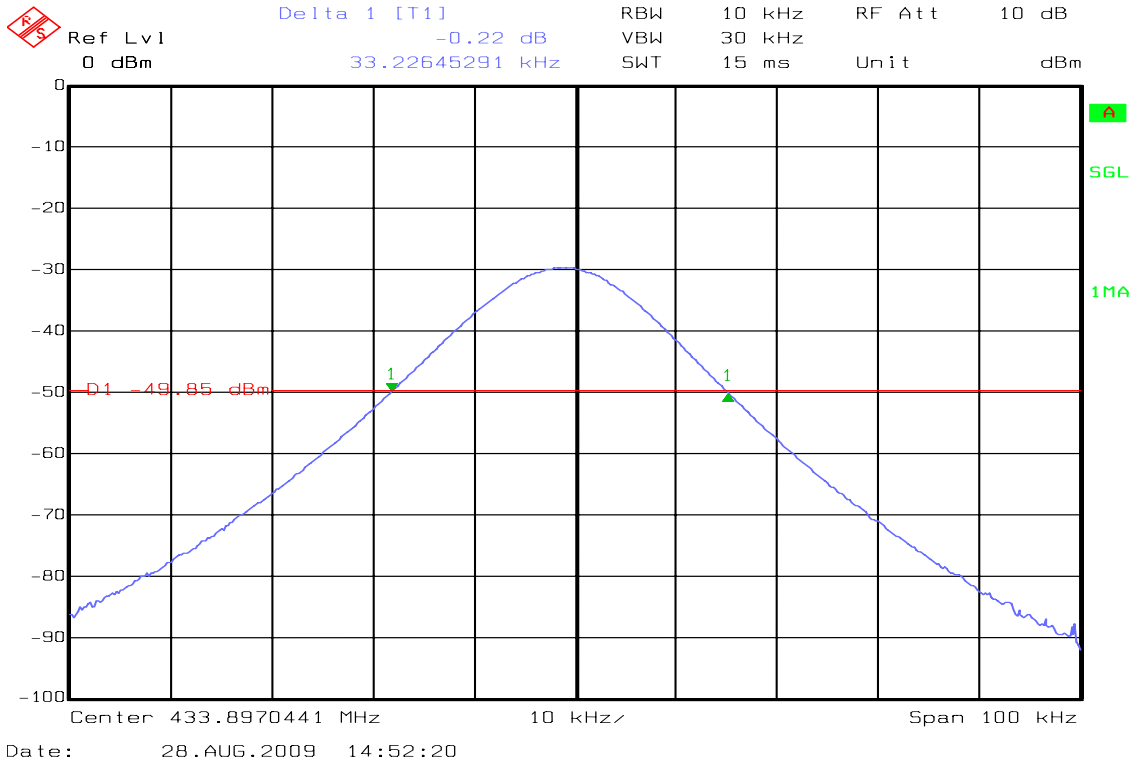
No non-compliance noted

TEST DATA

| Frequency (MHz) | 20 dB Bandwidth (kHz) | Limit (MHz) | Result |
|------------------------|------------------------------|--------------------|---------------|
| 433.897 | 33.226 | 1.0847 | PASS |



Test Plot



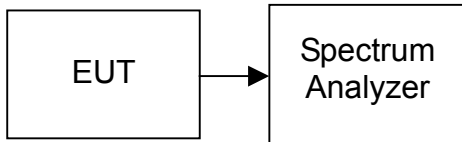


7.2. LIMIT OF TRANSMISSION TIME

LIMIT

According to 15.231 (a)(1), a manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The spectrum analyzer center frequency is set to the transmitter frequency. The RBW and VBW are set to 100kHz.

TEST RESULTS

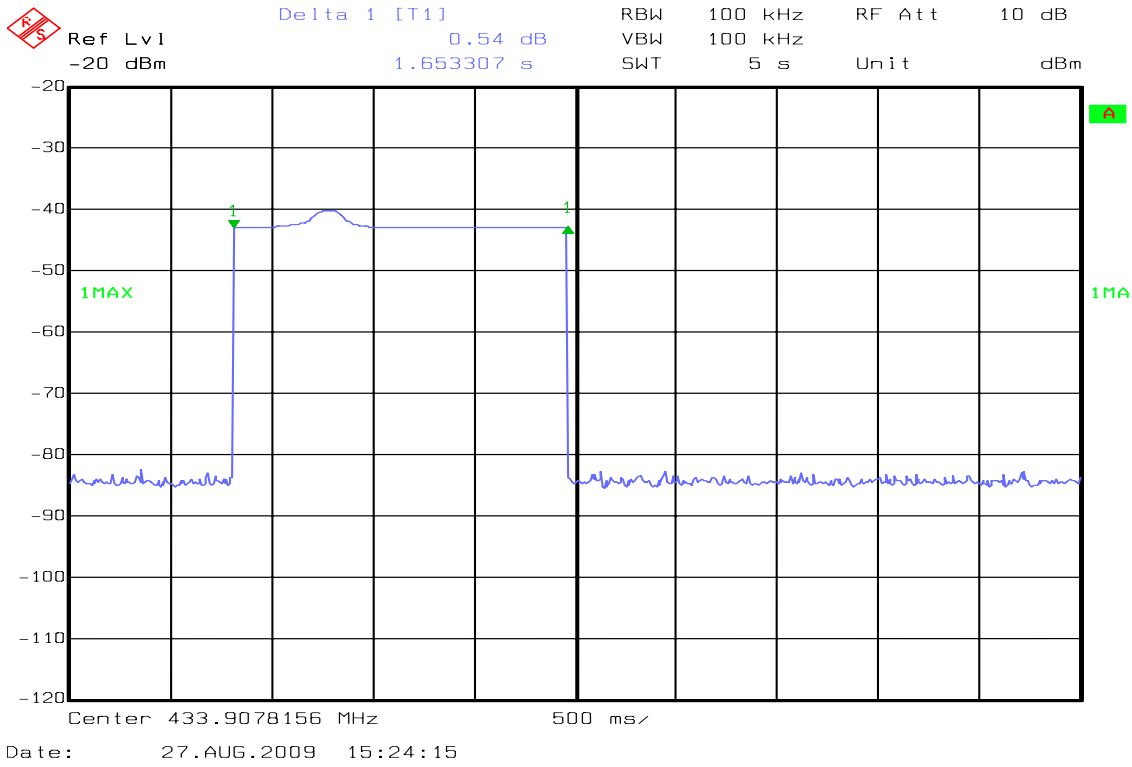
No non-compliance noted

TEST DATA

| Frequency (MHz) | Transmission time (s) | Limit (Second) | Result |
|------------------------|------------------------------|-----------------------|---------------|
| 433.908 | 1.653 | 5.00 | PASS |



Test Plot



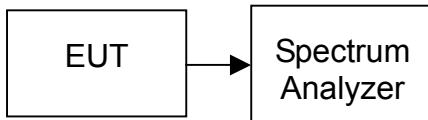


7.3. DUTY CYCLE

LIMIT

Nil (No dedicated limit specified in the Rules)

TEST CONFIGURATION



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = operating frequency.
4. Set the spectrum analyzer as RBW, VBW=100KHz, Span = 0Hz, Adjust Sweep = 30s.
5. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

No non-compliance noted

TEST DATA

$T_p = 1.782\text{ms}$

$T_{on} = 1.310\text{ms}$

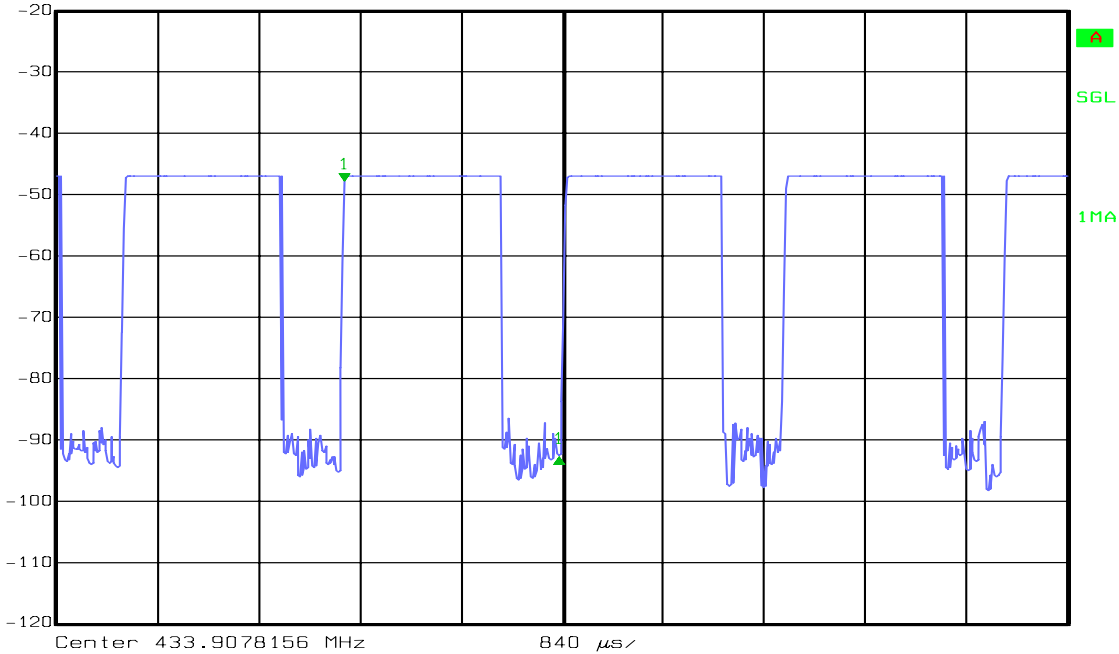
$\text{Factor} = 20 * \log(T_{on} / T_p) = 20 * \log(1.310/1.782) = -2.67\text{dB}$



Test Plot



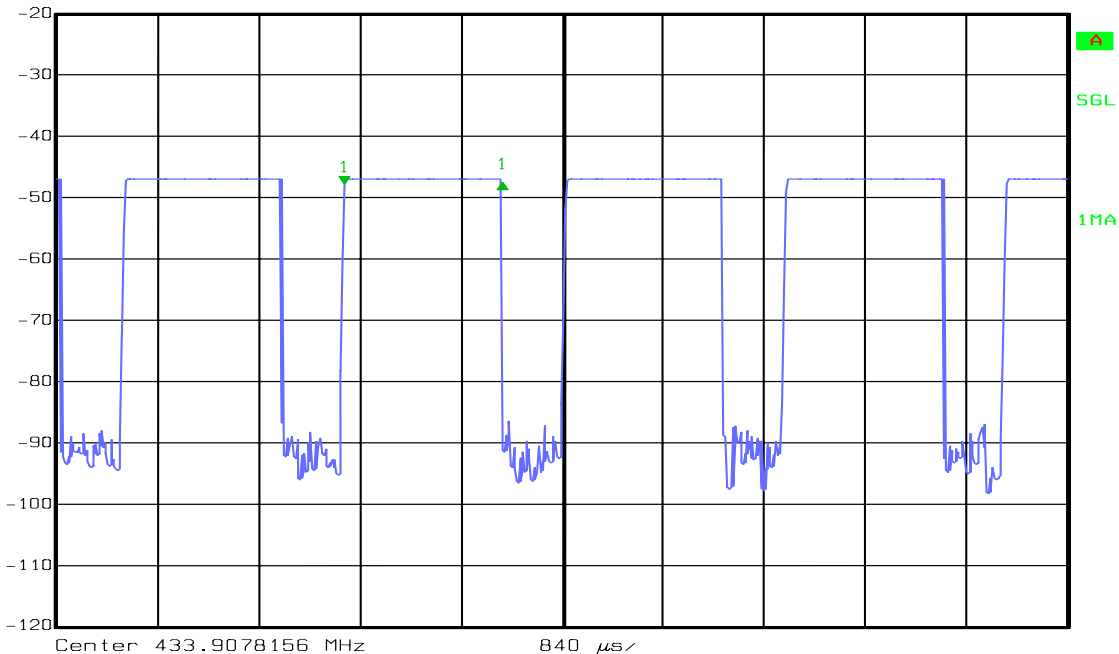
Ref Lvl -20 dBm
Delta 1 [T1] -44.59 dB
1.781804 ms
RBW 100 kHz
VBW 100 kHz
SWT 8.4 ms
RF Att 10 dB
Unit dBm



Date: 27.AUG.2009 15:21:35



Ref Lvl -20 dBm
Delta 1 [T1] 0.74 dB
1.310461 ms
RBW 100 kHz
VBW 100 kHz
SWT 8.4 ms
RF Att 10 dB
Unit dBm



Date: 27.AUG.2009 15:20:53



7.4. SPURIOUS EMISSIONS

RADIATED EMISSIONS

LIMIT

1. In the section 15.231(b): In addition to the provisions of Section 15.205, the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

| Fundamental Frequency (MHz) | Field Strength of Fundamental (microvolts/meter) | Field Strength of Spurious Emissions (microvolts/meter) |
|-----------------------------|--|---|
| 40.66 - 40.70 | 2250 | 225 |
| 70 - 130 | 1250 | 125 |
| 130 - 174 | 1250 to 3750* | 125 to 375* |
| 174 - 260 | 3750 | 375 |
| 260 - 470 | 3750 to 12500* | 375 to 1250* |
| Above 470 | 12500 | 1250 |

2. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

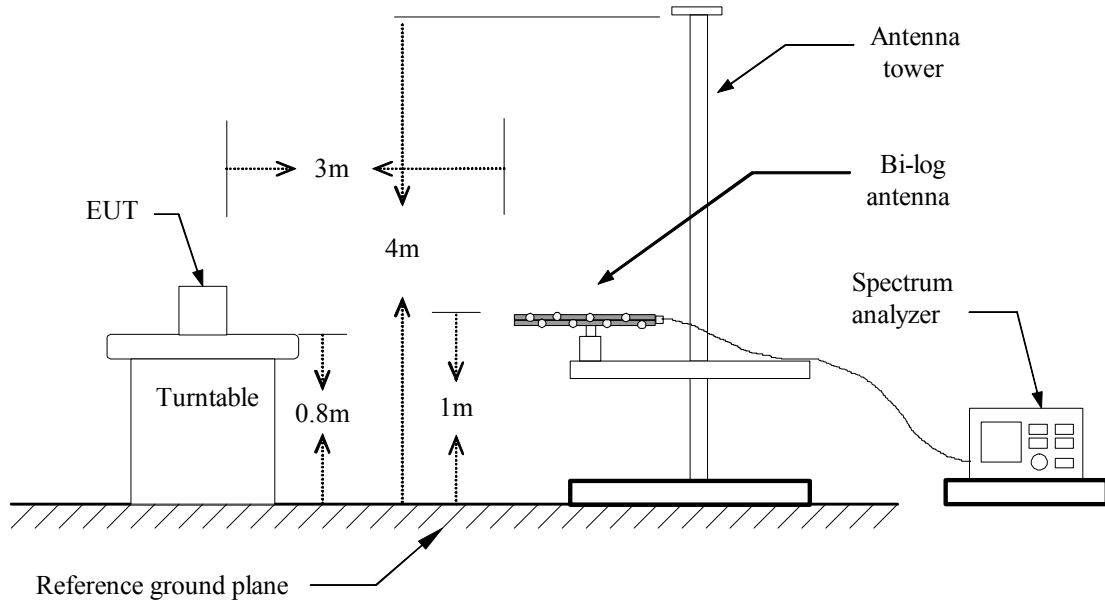
| Frequency (MHz) | Field Strength (µV/m) | Measurement Distance (m) |
|-----------------|-----------------------|--------------------------|
| 30-88 | 100* | 3 |
| 88-216 | 150* | 3 |
| 216-960 | 200* | 3 |
| Above 960 | 500 | 3 |

Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

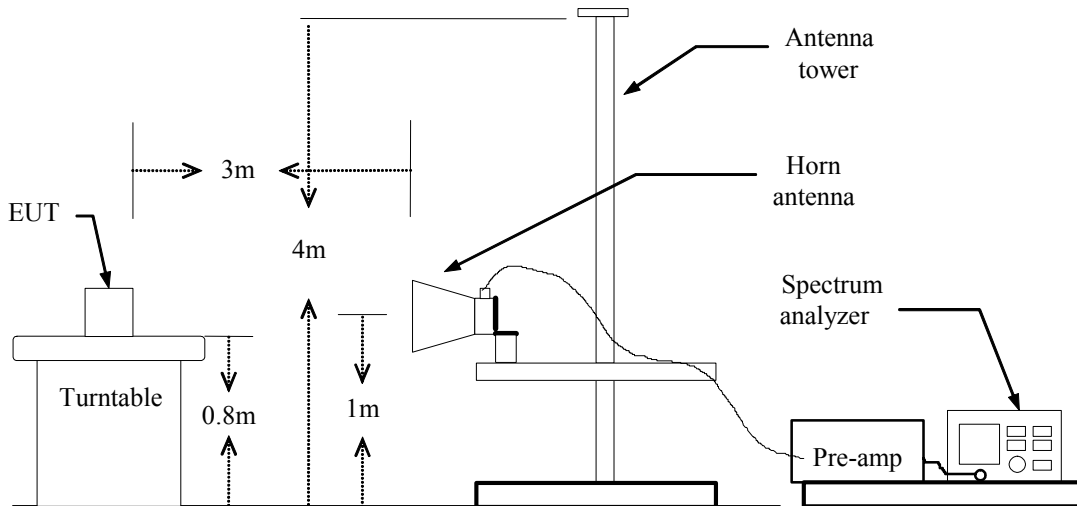
3. In the emission table above, the tighter limit applies at the band edges.

TEST CONFIGURATION

Below 1 GHz



Above 1 GHz





TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

Below 1GHz:

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Above 1GHz:

(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

7. Repeat above procedures until the measurements for all frequencies are complete.

TEST RESULTS

No non-compliance noted.



TEST DATA

Below 1 GHz

Operation Mode: TX / Fundament

Test Date: September 2, 2009

Temperature: 23°C

Tested by: Alonso Lu

Humidity: 53% RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Ant.Pol. (H/V) | Detector Mode (PK/AVG.) | Reading (dBuV) | Correction Factor (dB/m) | Result (dBuV/m) | Limit 3m (dBuV/m) | Margin (dB) |
|-----------------|----------------|-------------------------|----------------|--------------------------|-----------------|-------------------|-------------|
| 433.93 | V | AVG | 67.10 | -5.83 | 61.27 | 80.11 | -18.84 |
| 433.93 | H | AVG | 83.63 | -5.83 | 77.80 | 80.11 | -2.31 |

Remark:

1. No emission found between lowest internal used / generated frequency to 30 MHz. (9kHz ~ 30MHz)
2. Measuring frequencies from 30 MHz to the 1GHz.
3. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.

**Operation Mode:** TX / Harmonics**Test Date:** September 2, 2009**Temperature:** 23°C**Tested by:** Alonso Lu**Humidity:** 53% RH**Polarity:** Ver. / Hor.

| Frequency (MHz) | Ant.Pol. (H/V) | Detector Mode (PK/QP) | Reading (dBuV) | Correction Factor (dB/m) | Result (dBuV/m) | Limit 3m (dBuV/m) | Margin (dB) |
|-----------------|----------------|-----------------------|----------------|--------------------------|-----------------|-------------------|-------------|
| 89.82 | V | QP | 46.21 | -15.57 | 30.64 | 43.50 | -12.86 |
| 405.07 | V | QP | 31.90 | -6.02 | 25.88 | 46.00 | -20.12 |
| 647.57 | V | QP | 28.66 | -2.30 | 26.36 | 46.00 | -19.64 |
| 728.40 | V | QP | 29.29 | -1.05 | 28.24 | 46.00 | -17.76 |
| 867.43 | V | QP | 41.61 | 0.41 | 42.02 | 46.00 | -3.98 |
| 898.15 | V | QP | 28.68 | 0.60 | 29.29 | 46.00 | -16.71 |
| 30.00 | H | QP | 17.50 | -1.33 | 16.18 | 40.00 | -23.82 |
| 89.82 | H | QP | 39.82 | -15.57 | 24.25 | 43.50 | -19.25 |
| 135.08 | H | QP | 23.87 | -9.02 | 14.85 | 43.50 | -28.65 |
| 296.75 | H | QP | 31.08 | -8.53 | 22.55 | 46.00 | -23.45 |
| 867.43 | H | QP | 43.00 | 0.41 | 43.41 | 46.00 | -2.59 |
| 898.15 | H | QP | 29.02 | 0.60 | 29.62 | 46.00 | -16.38 |

Remark:

1. No emission found between lowest internal used / generated frequency to 30 MHz. (9kHz ~ 30MHz)
2. Measuring frequencies from 30 MHz to the 1GHz.
3. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using QP detector mode.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.



Compliance Certification Services Inc.

Report No: 90824007-RP1

FCC ID: XO82020TX1

Date of Issue: Sep. 10, 2009

Above 1 GHz

Operation Mode: TX / Harmonics

Test Date: September 2, 2009

Temperature: 18°C

Tested by: Alonso Lu

Humidity: 52% RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Ant.Pol. (H/V) | Reading (Peak) (dBuV) | Reading (Average) (dBuV) | Correction Factor (dB/m) | Result (Peak) (dBuV/m) | Result (Average) (dBuV/m) | Limit (Peak) (dBuV/m) | Limit (Average) (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|--------------------------|--------------------------|------------------------|---------------------------|-----------------------|--------------------------|-------------|--------|
| 1300.00 | V | 54.50 | --- | -7.40 | 47.10 | --- | 74.00 | 54.00 | -6.90 | Peak |
| N/A | | | | | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



7.5. POWERLINE CONDUCTED EMISSIONS

LIMIT

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

| Frequency Range (MHz) | Limits (dB μ V) | |
|-----------------------|---------------------|-----------|
| | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56* | 56 to 46* |
| 0.50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

TEST CONFIGURATION

See test photographs attached in Appendix II for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

TEST DATA

Not applicable (Since the EUT is powered by battery)