

FCC 47 CFR PART 15 SUBPART C ANSI C63.10: 2013

TEST REPORT

For

Halo Transmitter

Model: 900zTX

Data Applies To: N/A

Brand: 

Test Report Number:
TMTN2310001321NR

Issued to:

Instant Care, Inc.

2080 Wineridge Pl. Suite A, Escondido, California, United States, 92029

Issued by:

Compliance Certification Services Inc.

Tainan Lab.

**No. 168, Ln. 523, Sec. 3, Zhongzheng Rd.,
Rende Dist., Tainan City, 717017, Taiwan**

Issued Date: November 13, 2023

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REVISION HISTORY

| Rev. | Issue Date | Revisions | Effect Page | Revised By |
|------|-------------------|---------------|-------------|------------|
| 00 | November 13, 2023 | Initial Issue | ALL | Gina Lin |
| | | | | |
| | | | | |

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 | 9 |
| 5. FACILITIES AND ACCREDITATIONS | 10 |
| 5.1 FACILITIES | 10 |
| 5.2 EQUIPMENT | 10 |
| 5.3 LABORATORY ACCREDITATIONS LISTING..... | 10 |
| 5.4 TABLE OF ACCREDITATIONS AND LISTINGS..... | 11 |
| 6. SETUP OF EQUIPMENT UNDER TEST | 12 |
| 6.1 SETUP CONFIGURATION OF EUT | 12 |
| 6.2 SUPPORT EQUIPMENT | 12 |
| 6.3 CONFIGURATION OF SYSTEM UNDER TEST | 13 |
| 6.4 EUT OPERATING CONDITION | 13 |
| 7. FCC PART 15.249 REQUIREMENTS..... | 14 |
| 7.1 20 DB BANDWIDTH..... | 14 |
| 7.2 DUTY CYCLE..... | 18 |
| 7.3 SPURIOUS EMISSION | 22 |
| 7.4 POWERLINE CONDUCTED EMISSIONS | 41 |
| APPENDIX I - PHOTOGRAPHS OF TEST SETUP..... | 42 |
| APPENDIX II PHOTOGRPHS OF EUT | 48 |

Report No.: TMTN2310001321NR

1. TEST RESULT CERTIFICATION

| | |
|-------------------------|--|
| Product: | Halo Transmitter |
| Model: | 900zTX |
| Data Applies To: | N/A |
| Brand Name: |  |
| Applicant: | Instant Care, Inc. 2080 Wineridge Pl. Suite A, Escondido, California, United States, 92029 |
| Manufacturer: | Vision Automobile Electronics Industrial Co Ltd No.78, Gongye 3rd Rd., Technology Industrial Park, Tainan , Taiwan , 70955 |
| Tested: | October 16, 2023 ~ October 17, 2023 |

| APPLICABLE STANDARDS | |
|--|-------------------------|
| STANDARD | TEST RESULT |
| FCC 47 CFR Part 15 Subpart C ANSI C63.10: 2013 | No non-compliance noted |
| Statements of Conformity | |
| Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty. | |

| FCC Standard Section | Report Section | Test Item | Result |
|----------------------|----------------|-------------------------------|--------|
| 15.215(c) | 7.1 | 20dB BANDWIDTH | Pass |
| - | 7.3 | DUTY CYCLE | - |
| 15.249(a) | 7.4 | SPURIOUS EMISSION | Pass |
| 15.207(a) | 7.5 | POWERLINE CONDUCTED EMISSIONS | N/A |

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 C63.10: 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements emission limits of FCC Rules Part 15.107, 15.109, 15.207, 15.209 and 15.249.


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

Approved by:



John Chen
Supervisor

2. EUT DESCRIPTION

| | |
|-------------------------------|---|
| Product | Halo Transmitter |
| Model Number | 900zTX |
| Data Applies To | N/A |
| Brand Name |  |
| Received Date | October 16, 2023 |
| Reported Date | October 25, 2023 |
| Operation Frequency | 902.4MHz±200kHz 914.8MHz± 200kHz 927.6MHz±200kHz |
| Transmit Peak Power | 94.34dBuV/m |
| Transmit Data Rate | 4.8Kbps |
| Type of Modulation | 2FSK |
| Number of Channels | 3 Channel |
| Power Supply | DC 3V (Powered from battery) |
| Antenna Type | Type: PCB Antenna Model: 900zTX Manufacturer: N/A Gain: -3.2 dBi |
| MCU CHIP Brand /Model | (U1) Microchip / PIC16LF1825-I/ML |
| RF Module Brand /Model | (U2) Silicon-Labs / SI4060-C2A-GM |
| Hardware Version | Rev.0 |
| Software Version | Rev.0 |
| Temperature Range | -20°C ~ +60°C |

Remark:

1. Client consigns only one model sample to test (Model Number: **900zTX**). Therefore, the testing Lab. just guarantees the unit, which has been tested.
2. This submittal(s) (test report) is intended for FCC ID: **XO8-900ZTX** filing to comply with Section 15.207, 15.209, 15.249.
3. For more details, please refer to the User's manual of the EUT.

Report No.: TMTN2310001321NR

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057, 15.207, 15.209 and 15.249.

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.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209, 15.249 under the FCC Rules Part 15 Subpart C.

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 6.2.2 of ANSI C63.10 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 and 1.5 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 6.5.4 and Section 6.6.4.2 of ANSI C63.10.

Report No.: TMTN2310001321NR

3.4 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

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

| MHz | MHz | MHz | GHz |
|----------------------------|---------------------|-----------------|------------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.52525 | 2655 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 156.7 - 156.9 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 162.0125 - 167.17 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 167.72 - 173.2 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 240 - 285 | 3600 - 4400 | (²) |
| 13.36 - 13.41 | 322 - 335.4 | | |

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

² Above 38.6

2. 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: 900zTX**) had been tested under engineering test mode condition and the EUT staying in continuous transmitting mode.

Note :

The field strength of spurious emission was measured in the following position:

- 1) The field strength of spurious emission was measured in the following position: EUT stand-up position (Y axis), lie-down position (X, Z axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

Report No.: TMTN2310001321NR

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

| Chamber Room #1166 | | | | | |
|-----------------------------------|---|--------------|--------------------|------------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due |
| Active Loop Antenna | ETS-LINDREN | 6502 | 8905-2356 | 09/04/2023 | 09/03/2024 |
| Band Reject Filter | MICRO-TRONICS | HPM13525 | 006 | 01/19/2023 | 01/18/2024 |
| Bilog Antenna with 6dB Attenuator | SUNOL SCIENCES & EMCI | JB1 & N-6-06 | A021306 & AT-N0682 | 10/03/2023 | 10/02/2024 |
| Cable | EMCI | EM102-KMKM | CB1166-01 | 06/17/2023 | 06/16/2024 |
| Double Ridged Guide Horn Antenna | ETS-LINDGREN | 3116 | 00078900 | 03/25/2023 | 03/24/2024 |
| EMI Test Receiver | R&S | ESCI 7 | 100856 | 06/15/2023 | 06/14/2024 |
| EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY54430216 | 07/25/2023 | 07/24/2024 |
| Double Ridged Guide Horn Antenna | SCHWARZBECK | BBHA 9120D | 9120D-788(98006) | 04/18/2023 | 04/17/2024 |
| Pre-Amplifier | EMCI | EMC012645 | 980098 | 01/19/2023 | 01/18/2024 |
| Pre-Amplifier | Com-Power | PAM-840A | 461378 | 06/07/2023 | 06/06/2024 |
| Software | Excel(ccs-o6-2020 v1.1) , e3(v6.101222) | | | | |

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

Report No.: TMTN2310001321NR

4.3 MEASUREMENT UNCERTAINTY

| Parameter | Uncertainty |
|---|-------------|
| Radiated Emission, 9kHz~30MHz Test Site : CB1166 | ±2.7dB |
| Radiated Emission, 30 MHz ~1GHz Test Site : CB1166 | ±3.76dB |
| Radiated Emission, 1GHz ~18GHz Test Site : CB1166 | ±4.43dB |
| Radiated Emission, 18GH~26.5GHz Test Site : CB1166 | ±4.79dB |
| Radiated Emission, 26.5GH~40GHz Test Site : CB1166 | ±4.72dB |
| Power Line Conducted Emission, 9kHz~30MHz | ±1.83dB |

Uncertainty figures are valid to a confidence level of 95%, k=2

Report No.: TMTN2310001321NR

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

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

No.8, Jiucengling, Xinhua Dist., Tainan City 712, Taiwan

No. 168, Ln. 523, Sec. 3, Zhongzheng Rd., Rende Dist., Tainan City 717017, Taiwan
Tel: 886-6-580-2201 / Fax: 886-6-580-2202

The sites are constructed in conformance with the requirements of ANSI C63.7:1992, ANSI C63.10: 2013 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 LABORATORY ACCREDITATIONS LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by Taiwan Accreditation Foundation for the specific scope of accreditation under Lab Code: 1109 to perform Electromagnetic Interference tests according to FCC PART 15 AND CISPR 22 requirements. No part of this report may be used to claim or imply product endorsement by TAF or any agency of the Government. In addition, the test facilities are listed with Federal Communications Commission (registration no: TW1109).

Report No.: TMTN2310001321NR

5.4 TABLE OF ACCREDITATIONS AND LISTINGS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

| | |
|---------------|-----|
| Taiwan | TAF |
|---------------|-----|

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

| | |
|----------------|-----------------|
| Canada | Industry Canada |
| Germany | TUV NORD |
| Taiwan | BSMI |
| USA | FCC |

6. SETUP OF EQUIPMENT UNDER TEST

6.1 SETUP CONFIGURATION OF EUT

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

6.2 SUPPORT EQUIPMENT

【RF】

| No. | Product | Manufacturer | Model No. | Certify No. | Signal cable |
|-----|---------|--------------|-----------|-------------|--------------|
| 1 | N/A | N/A | N/A | N/A | N/A |

| No. | Signal cable description | |
|-----|--------------------------|-----|
| A | N/A | N/A |

【EMC】

| No. | Product | Manufacturer | Model No. | Certify No. | Signal cable |
|-----|---------|--------------|-----------|-------------|--------------|
| 1 | N/A | N/A | N/A | N/A | N/A |

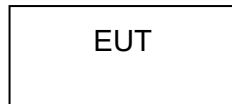
| No. | Signal cable description | |
|-----|--------------------------|-----|
| A | N/A | N/A |

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

6.3 CONFIGURATION OF SYSTEM UNDER TEST

【RF】



6.4 EUT OPERATING CONDITION

RF Setup

1. Set up a whole system as the setup diagram.
2. Turn on power.

Report No.: TMTN2310001321NR

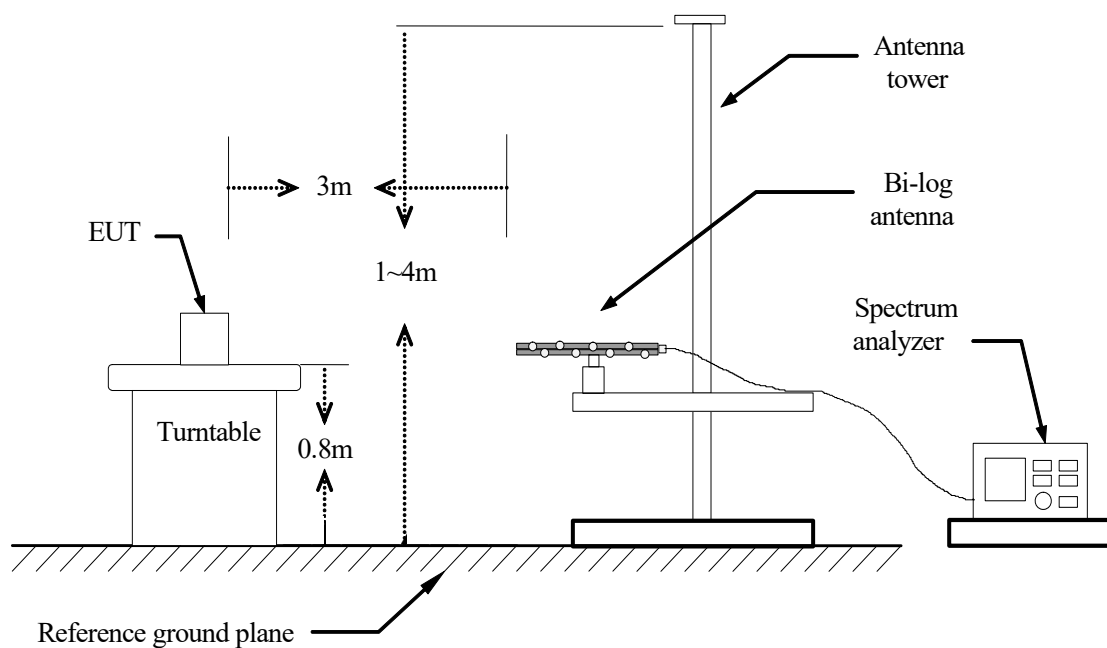
7. FCC PART 15.249 REQUIREMENTS

7.1 20 dB BANDWIDTH

LIMIT

None; for reporting purposes only.

TEST CONFIGURATION



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Set center frequency of spectrum analyzer = operating frequency.
3. Set the spectrum analyzer as RBW=10kHz, VBW=30kHz, Span = 200kHz, a suitable Sweep Time.
4. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

No non-compliance noted.

TEST DATA

Operation Mode: TX

Test Date: 2023/10/16

Temperature: 24°C

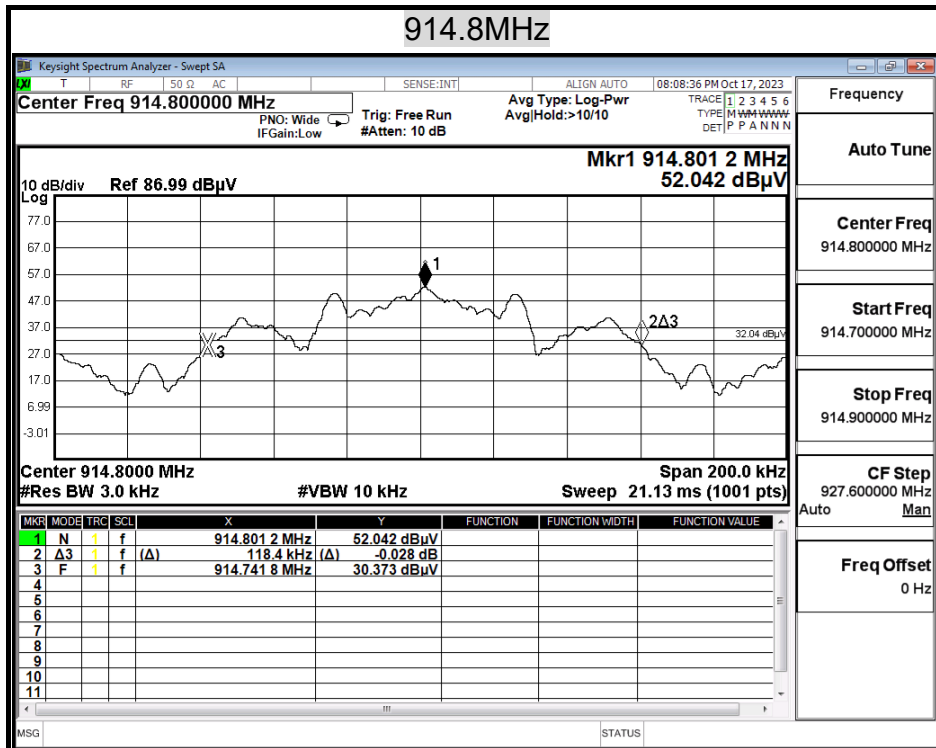
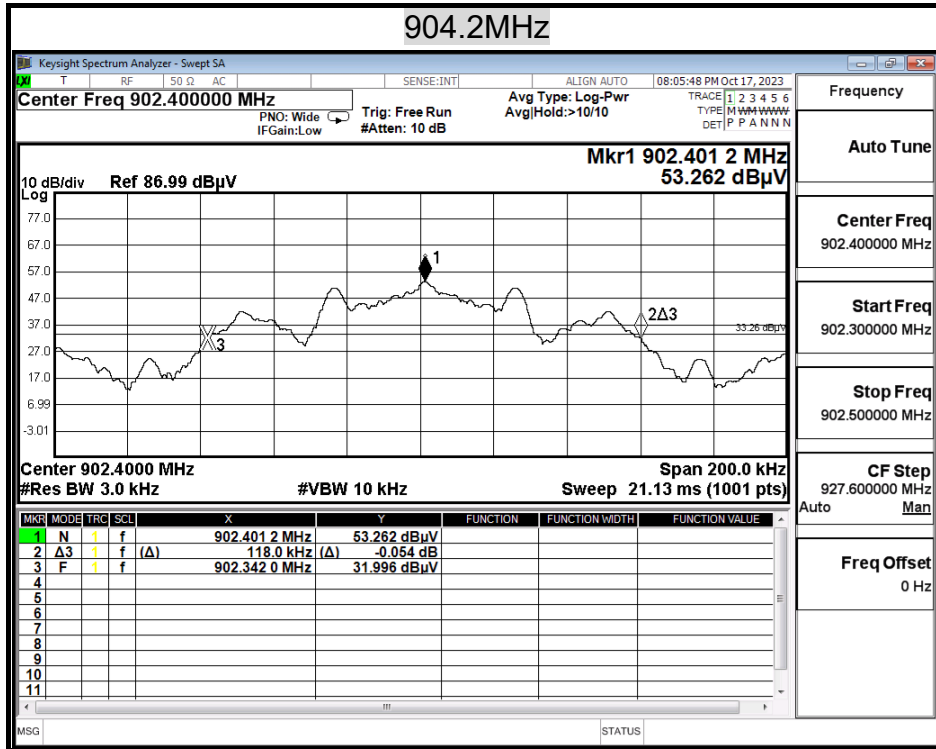
Tested by: Peter Chu

Humidity: 46% RH

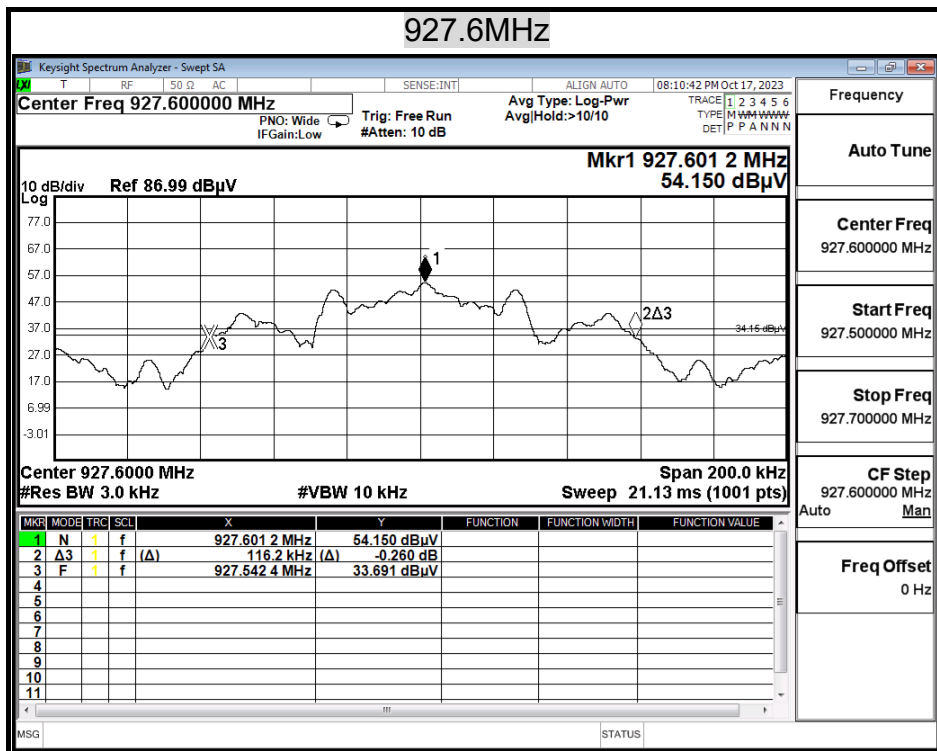
Polarity: Ver. / Hor.

| Frequency (MHz) | 20 dB Bandwidth (MHz) |
|-----------------|-----------------------|
| 904.2 | 0.118 |
| 914.8 | 0.118 |
| 927.6 | 0.116 |

TEST PLOT



Report No.: TMTN2310001321NR

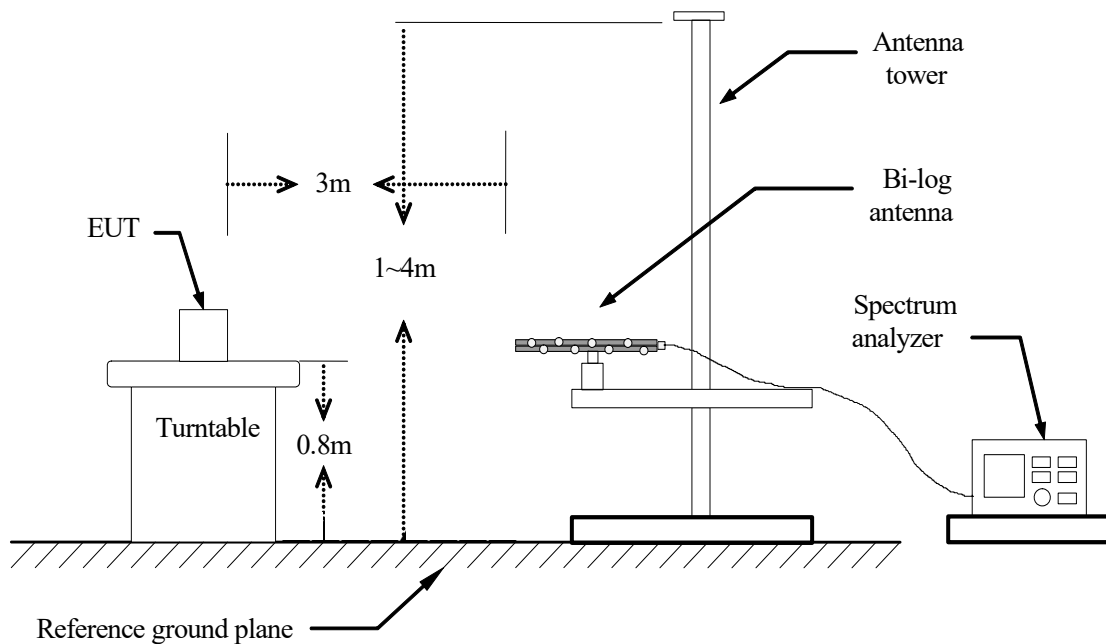


7.2 DUTY CYCLE

LIMIT

Nil (No dedicated limit specified in the Rules)

TEST CONFIGURATION



TEST PROCEDURE

5. Place the EUT on the table and set it in transmitting mode.
6. Set center frequency of spectrum analyzer = operating frequency.
7. Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span = 0Hz, a suitable Sweep Time.
8. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

No non-compliance noted.

TEST DATA

Operation Mode: TX

Test Date: 2023/10/16

Temperature: 24°C

Tested by: Peter Chu

Humidity: 46% RH

Polarity: Ver. / Hor.

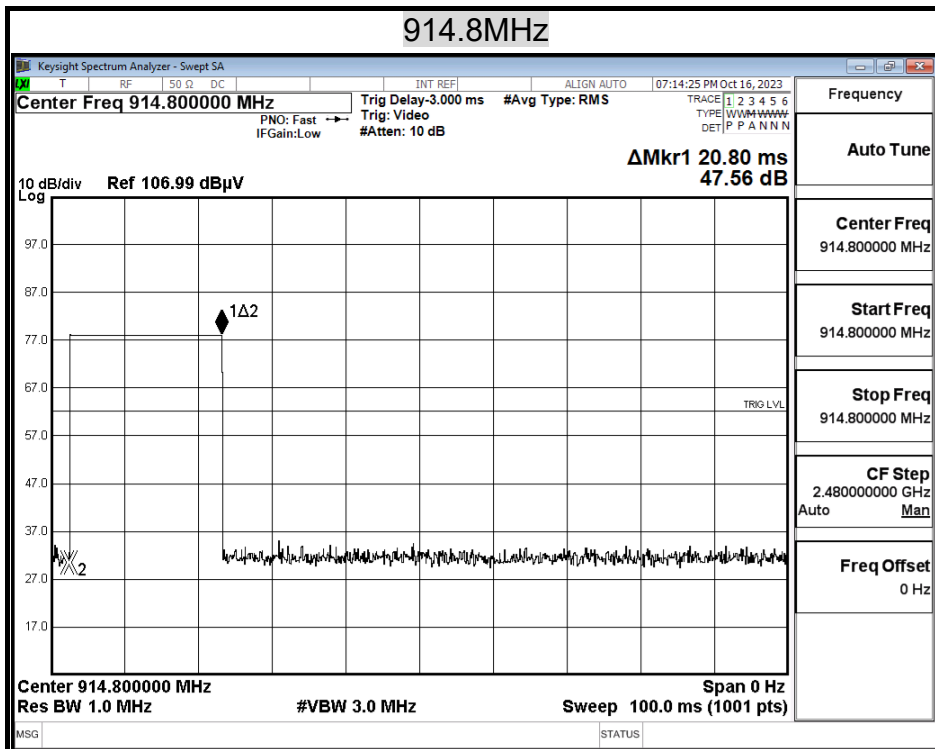
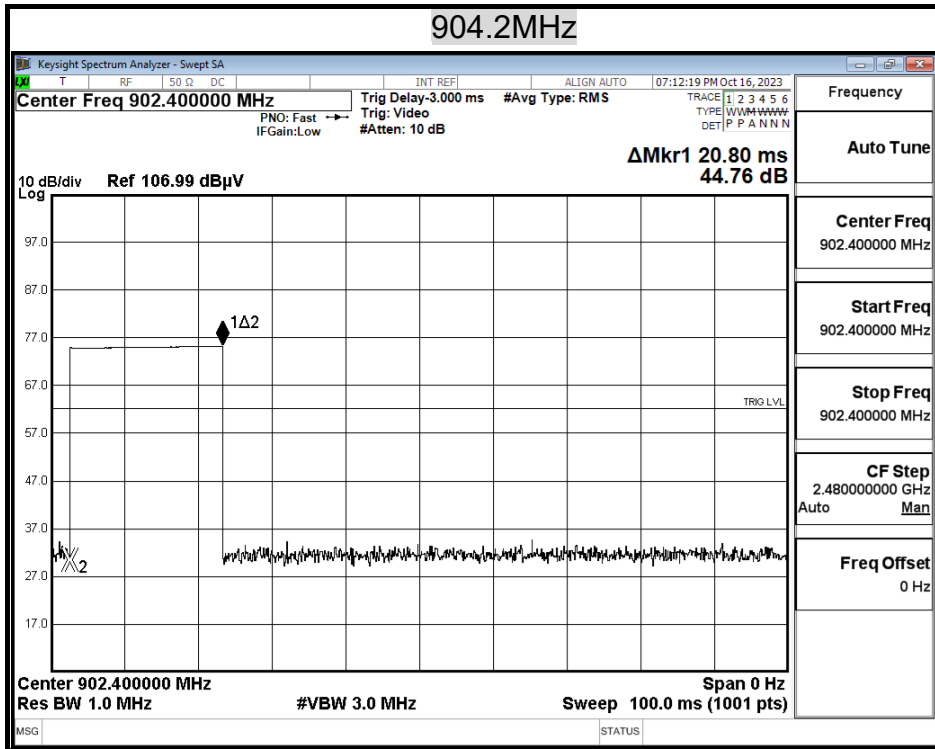
908 MHz

| | us | Times | Ton | Total Ton time(ms) |
|------|-----------|-------|-----------|--------------------|
| Ton1 | 20800.000 | 1 | 20800.000 | |
| Ton2 | | 0 | 0.000 | |
| Ton3 | | 0 | 0.000 | 20.800 |
| TP | | | | 100.000 |

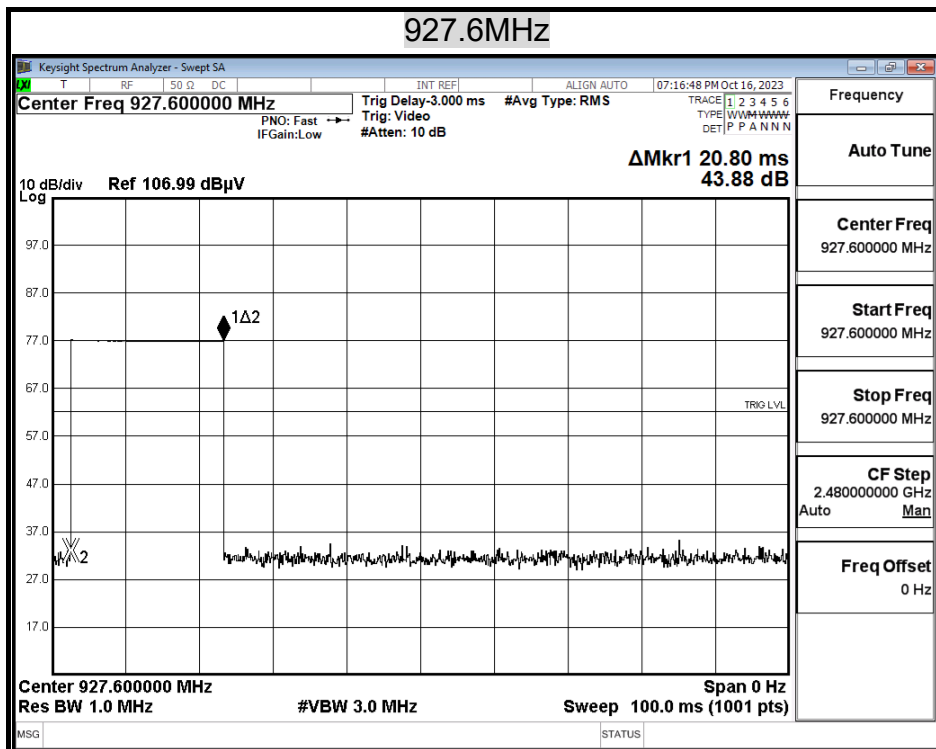
| | |
|--------------|---------|
| Ton | 20.800 |
| TP(Ton+Toff) | 100.000 |
| Duty Cycle | 0.208 |
| Duty Factor | -13.639 |

Report No.: TMTN2310001321NR

TEST PLOT



Report No.: TMTN2310001321NR



Report No.: TMTN2310001321NR

7.3 SPURIOUS EMISSION

LIMIT

1. In the section 15.249(a):

Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

| Fundamental Frequency (MHz) | Field Strength of Fundamental Field Strength (mV/m) | Field Strength of Harmonics (µV/m) |
|-----------------------------|---|------------------------------------|
| 902-928 MHz | 50 | 500 |
| 2400 - 2483.5 MHz | 50 | 500 |
| 5725 - 5875 MHz | 50 | 500 |
| 24.0 - 24.25 GHz | 250 | 2500 |

2. 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 |

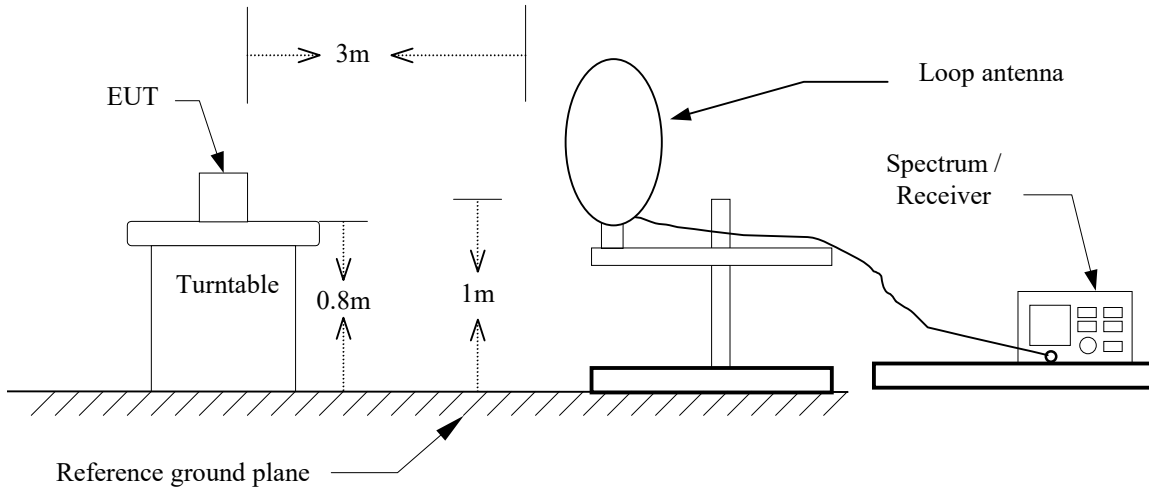
Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of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

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

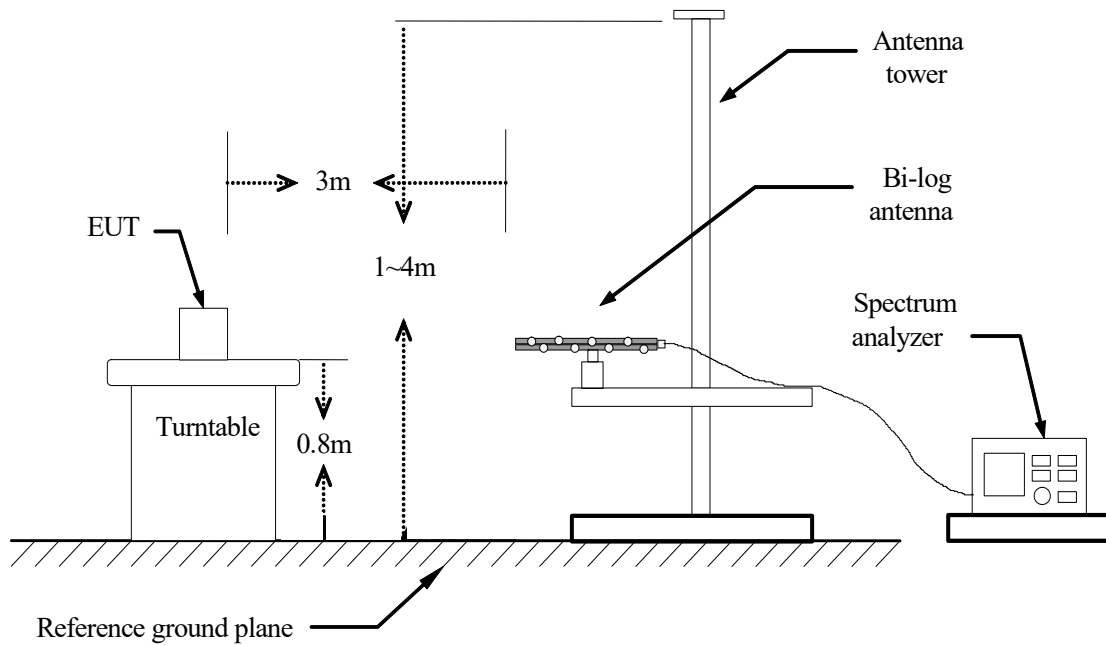
| Frequency (MHz) | Field Strength (µV/m at 3-meter) | Field Strength (dBµV/m at 3-meter) |
|-----------------|----------------------------------|------------------------------------|
| 30-88 | 100 | 40 |
| 88-216 | 150 | 43.5 |
| 216-960 | 200 | 46 |
| Above 960 | 500 | 54 |

TEST CONFIGURATION

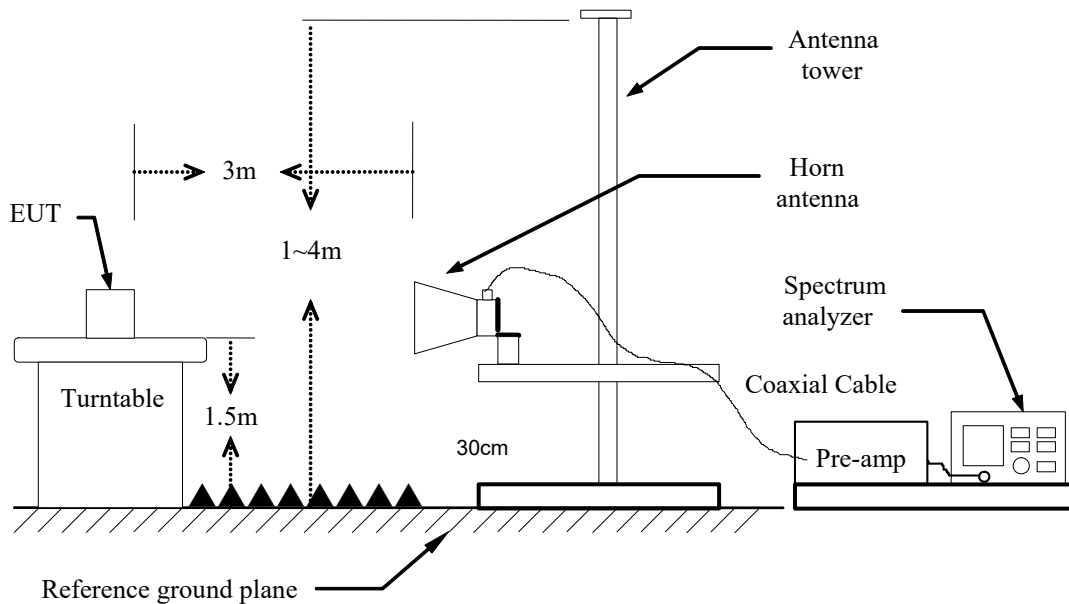
9kHz ~ 30MHz



30MHz ~ 1GHz



Report No.: TMTN2310001321NR
Above 1 GHz



TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8/1.5m 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 in 9kHz to 30MHz.
4. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions in 30MHz to 10GHz.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. Set the spectrum analyzer in the following setting as:
 - 9kHz -150kHz
RBW=200Hz / VBW=600Hz / Sweep=AUTO
 - 0.15MHz -30MHz
RBW=9kHz / VBW=30kHz / Sweep=AUTO
 - Below 1GHz:
RBW=100kHz / VBW=300kHz / Sweep=AUTO
 - Above 1GHz:
 - (a) PEAK: RBW=1MHz / VBW=3MHz / Sweep=AUTO / Detector=Peak
 - (b) AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO / Detector=Average
8. Repeat above procedures until the measurements for all frequencies are complete.

Report No.: TMTN2310001321NR

**Below 1 GHz
9K-30M**

Operation Mode: TX

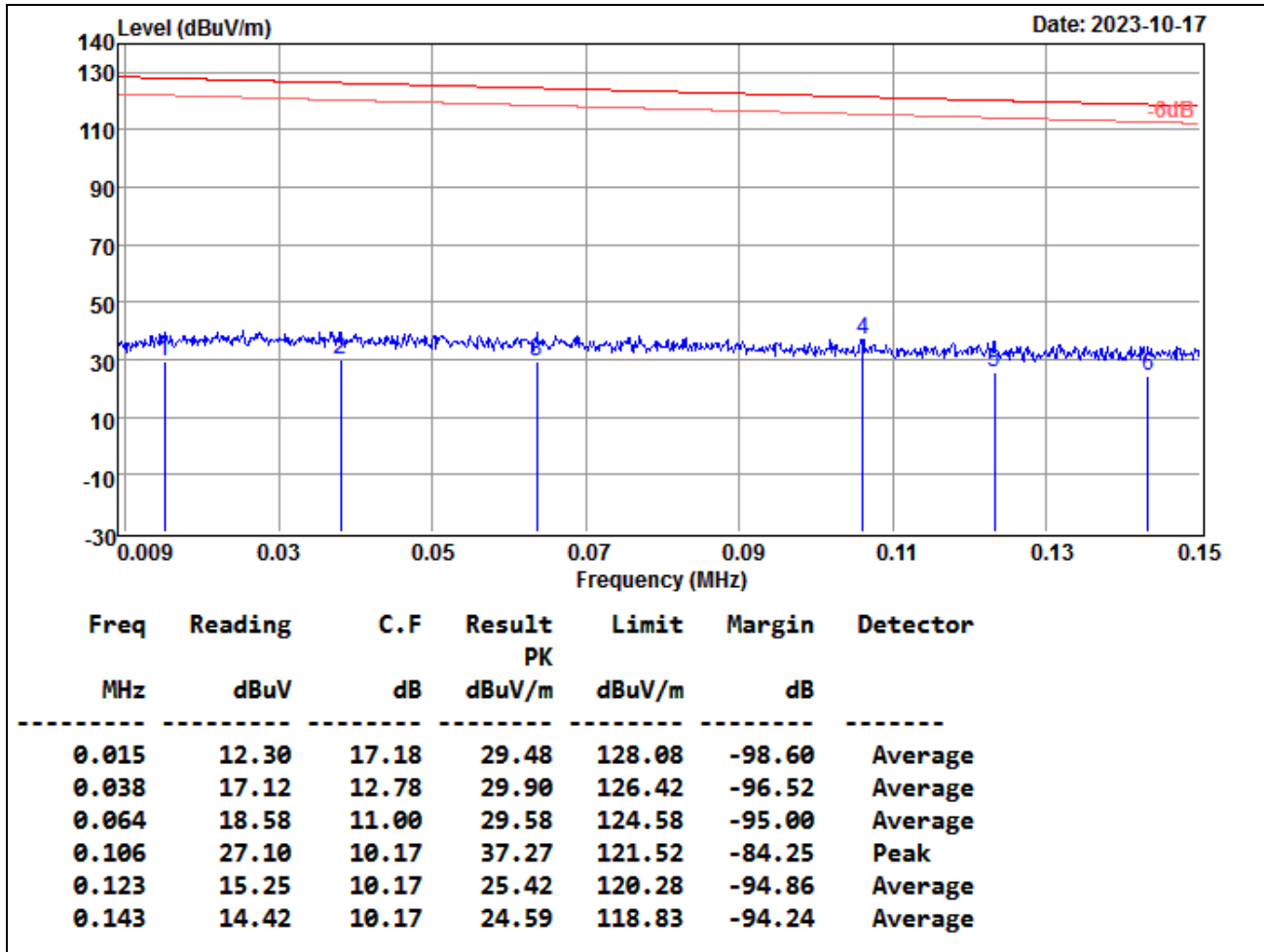
Test Date: 2023/10/17

Temperature: 24.2°C

Tested by: Peter Chu

Humidity: 49% RH

Polarity: Ver. / Hor.



Remark:

- Radiated emissions measured in frequency range from 9kHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
- Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
- 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.
- Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).
- C.F=Antenna Factor+Cable Loss
- That the limit for signals below 1GHz is a QP limit and peak readings are below the QP limit.
- The fundamental signal is not shown in the test data because measurements at fundamental frequency are shown separately and were ignored during the 30 – 1000 MHz scan.

Report No.: TMTN2310001321NR

Operation Mode: TX

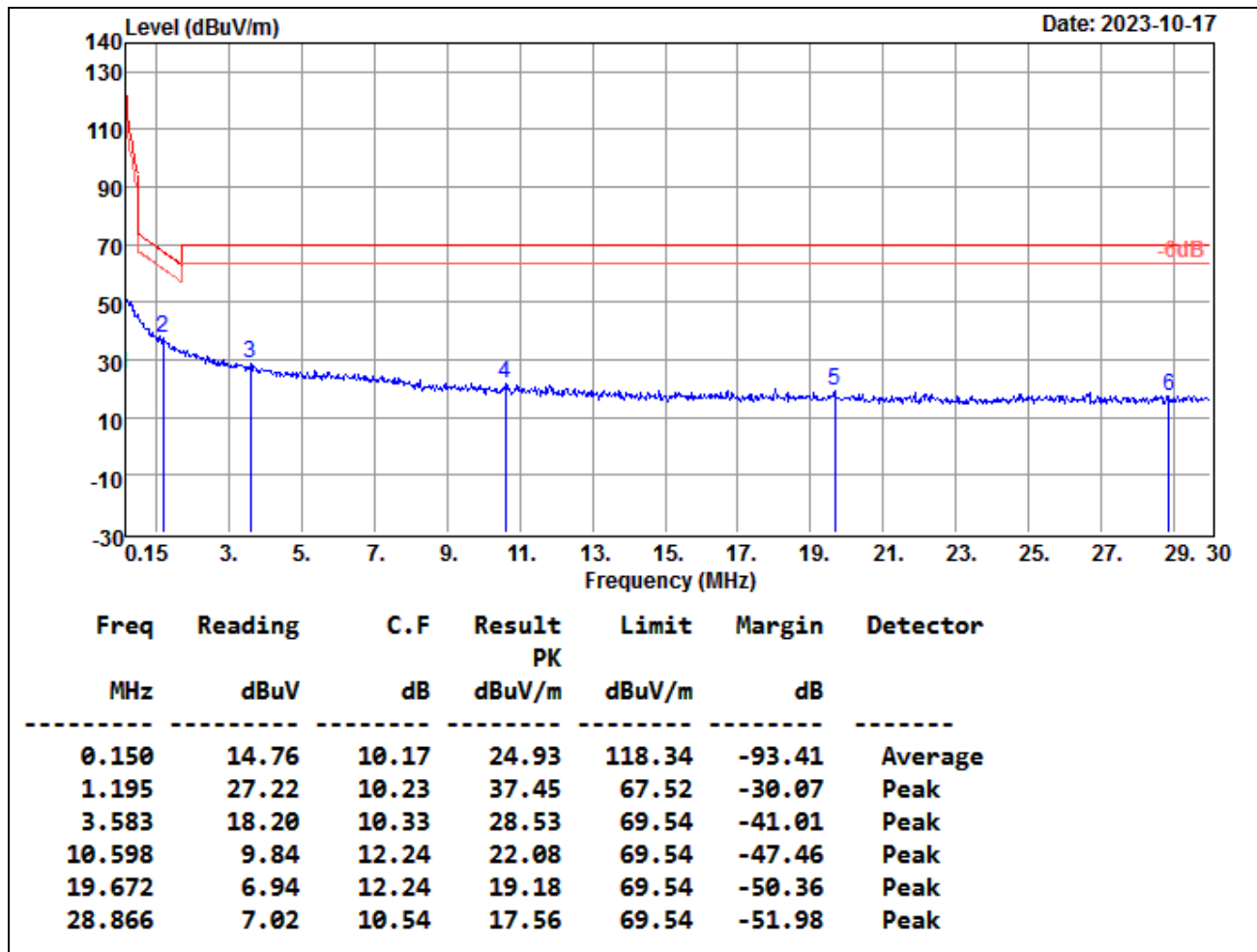
Test Date: 2023/10/17

Temperature: 24.2°C

Tested by: Peter Chu

Humidity: 49% RH

Polarity: Ver. / Hor.



Remark:

1. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
2. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
3. 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.
4. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).
5. C.F=Antenna Factor+Cable Loss
6. That the limit for signals below 1GHz is a QP limit and peak readings are below the QP limit.
7. The fundamental signal is not shown in the test data because measurements at fundamental frequency are shown separately and were ignored during the 30 – 1000 MHz scan.

Report No.: TMTN2310001321NR

30M-1G

Operation Mode: TX

Test Date: 2023/10/17

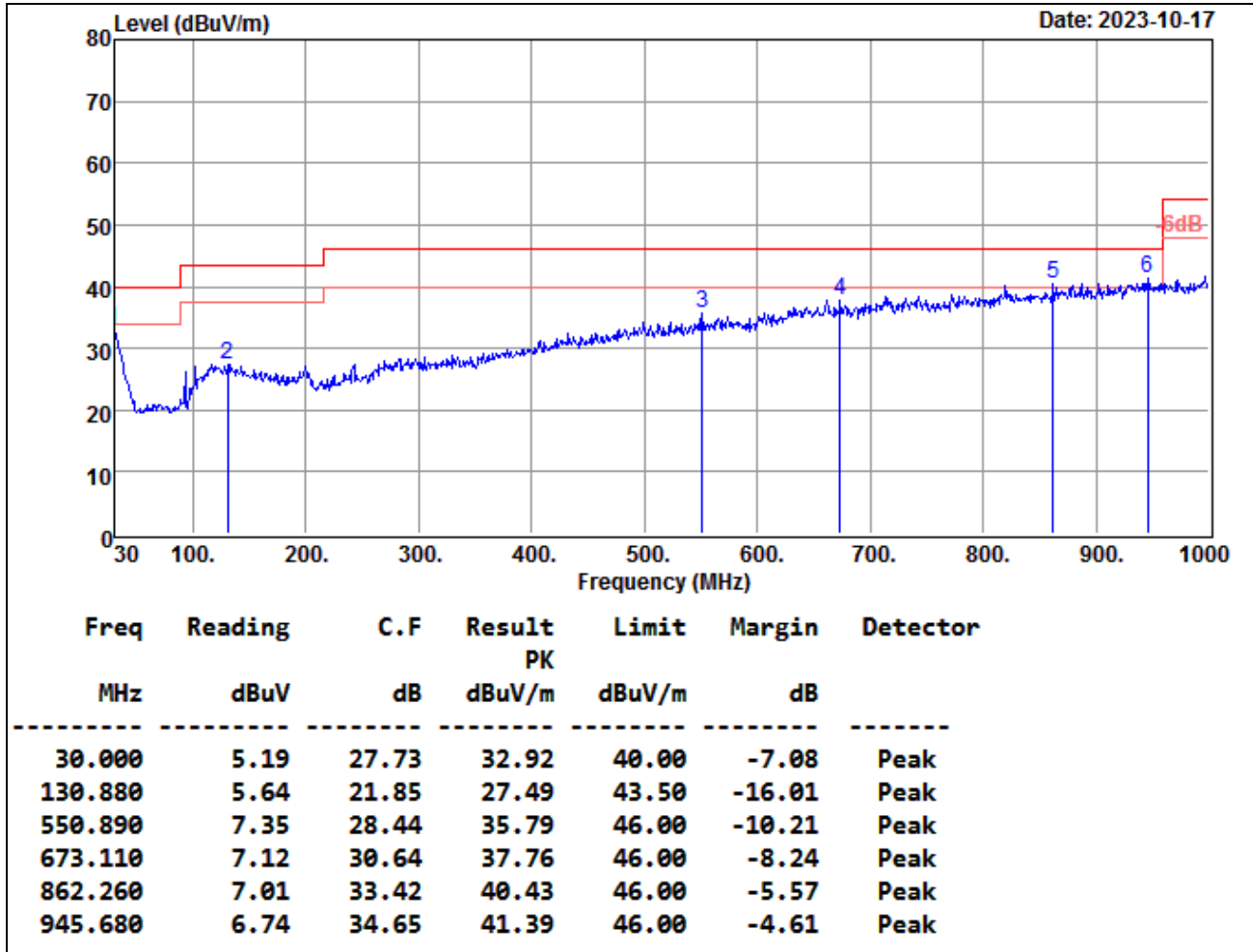
Temperature: 24.2°C

Tested by: Peter Chu

Humidity: 49% RH

Polarity: Ver. / Hor.

Vertical



Remark:

1. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
2. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
3. 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.
4. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).
5. C.F=Antenna Factor+Cable Loss
6. That the limit for signals below 1GHz is a QP limit and peak readings are below the QP limit.
7. The fundamental signal is not shown in the test data because measurements at fundamental frequency are shown separately and were ignored during the 30 – 1000 MHz scan.

Report No.: TMTN2310001321NR

Operation Mode: TX

Test Date: 2023/10/17

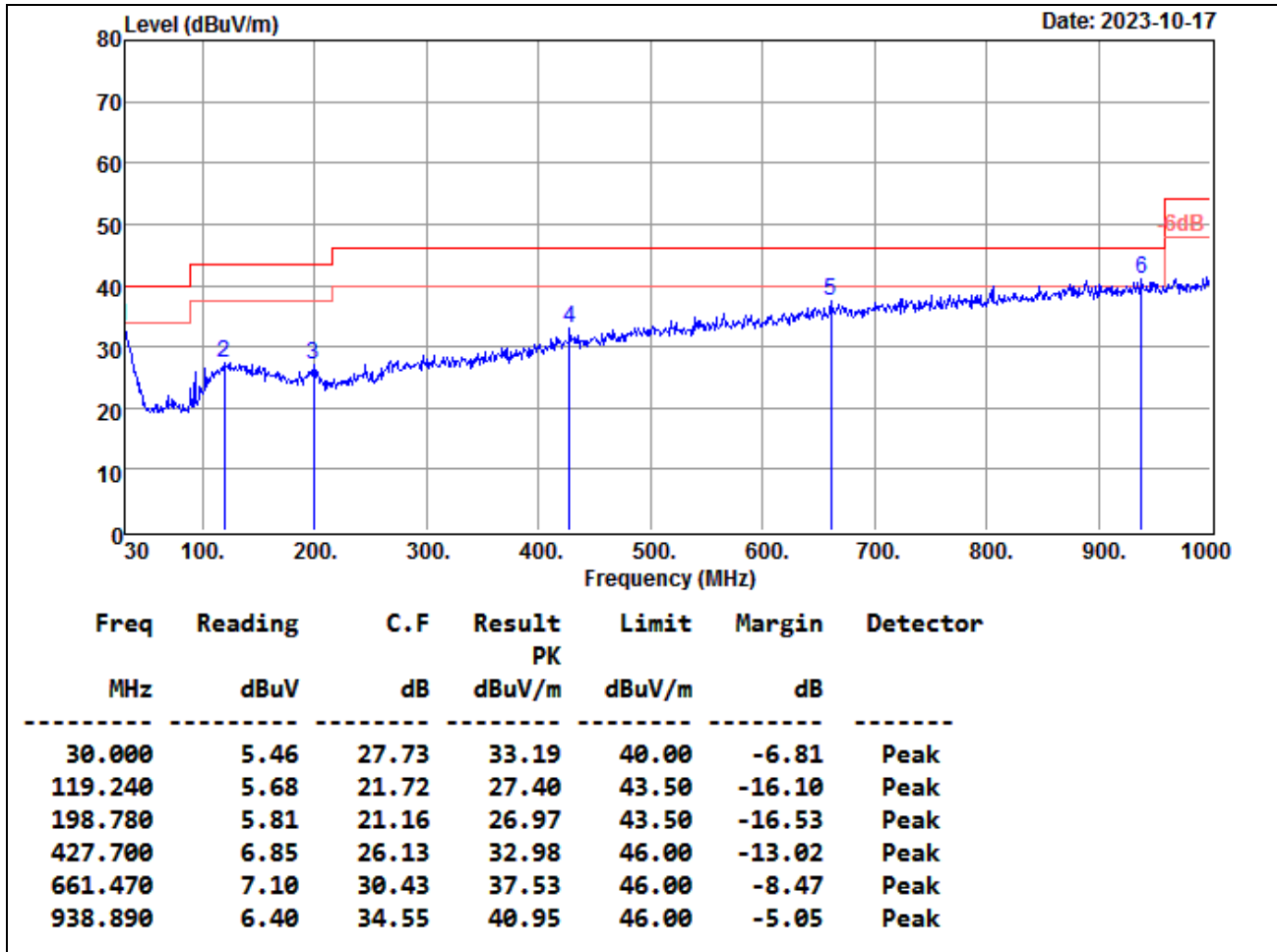
Temperature: 24.2°C

Tested by: Peter Chu

Humidity: 49% RH

Polarity: Ver. / Hor.

Horizontal



Remark:

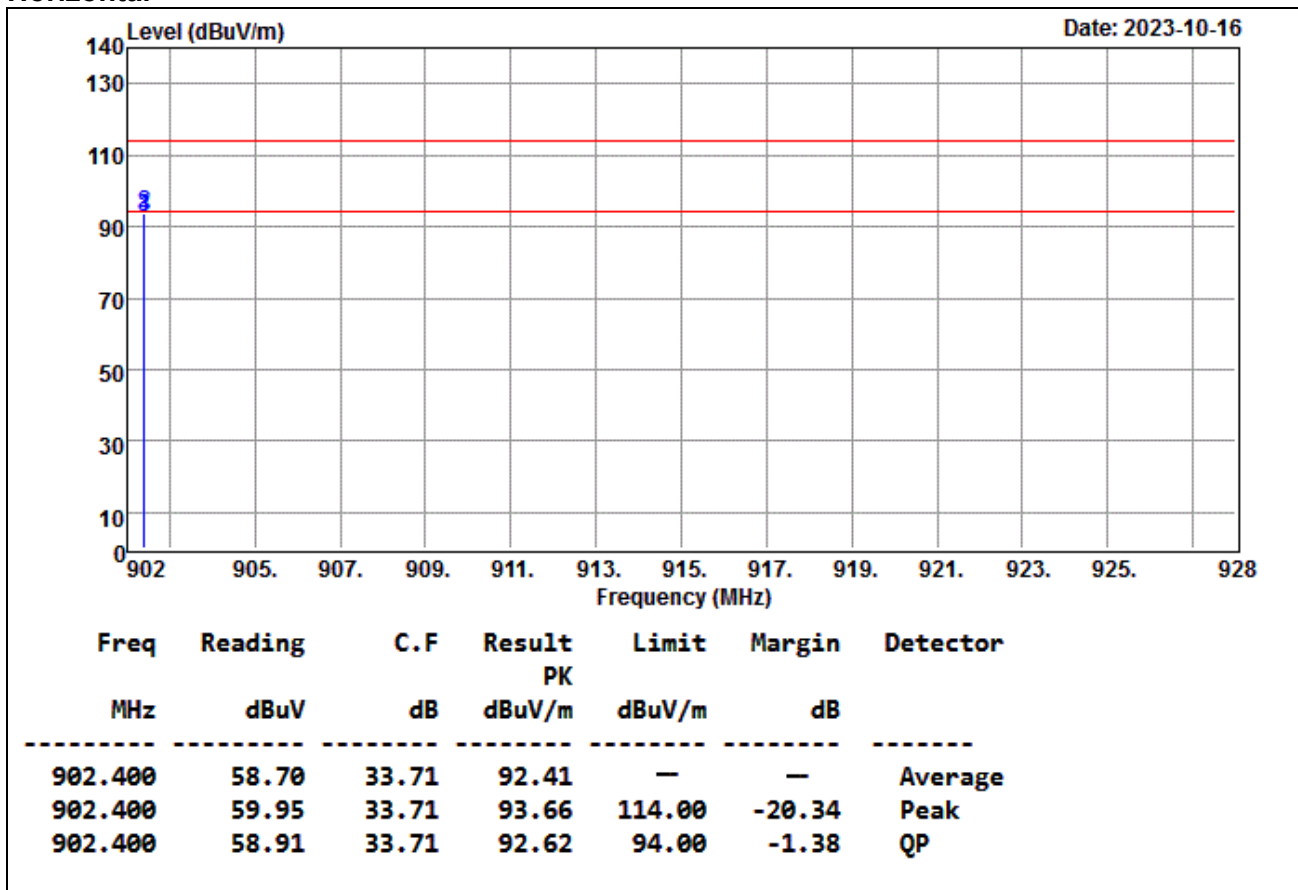
1. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
2. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
3. Measurements above show only up 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.
4. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).
5. C.F=Antenna Factor+Cable Loss
6. That the limit for signals below 1GHz is a QP limit and peak readings are below the QP limit.
7. The fundamental signal is not shown in the test data because measurements at fundamental frequency are shown separately and were ignored during the 30 – 1000 MHz scan.

The fundamental signal

Operation Mode: 902.4MHz
 Temperature: 24.2°C
 Humidity: 49% RH

Test Date: 2023/10/16
 Tested by: Peter Chu
 Polarity: Ver. / Hor.

Horizontal



Remark:

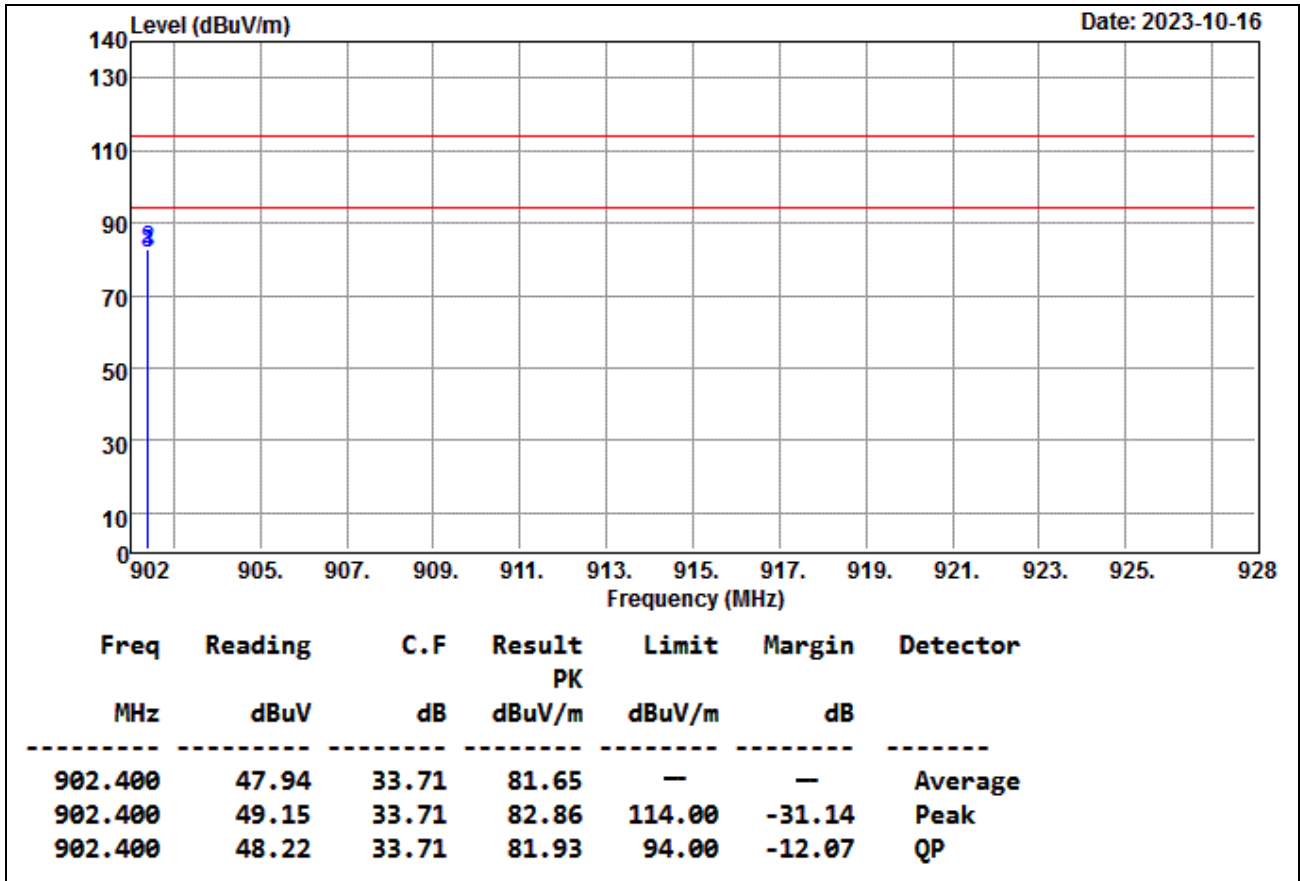
1. C.F=Antenna Factor+Cable Loss
2. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

Report No.: TMTN2310001321NR

Operation Mode: 902.4MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Vertical



Remark:

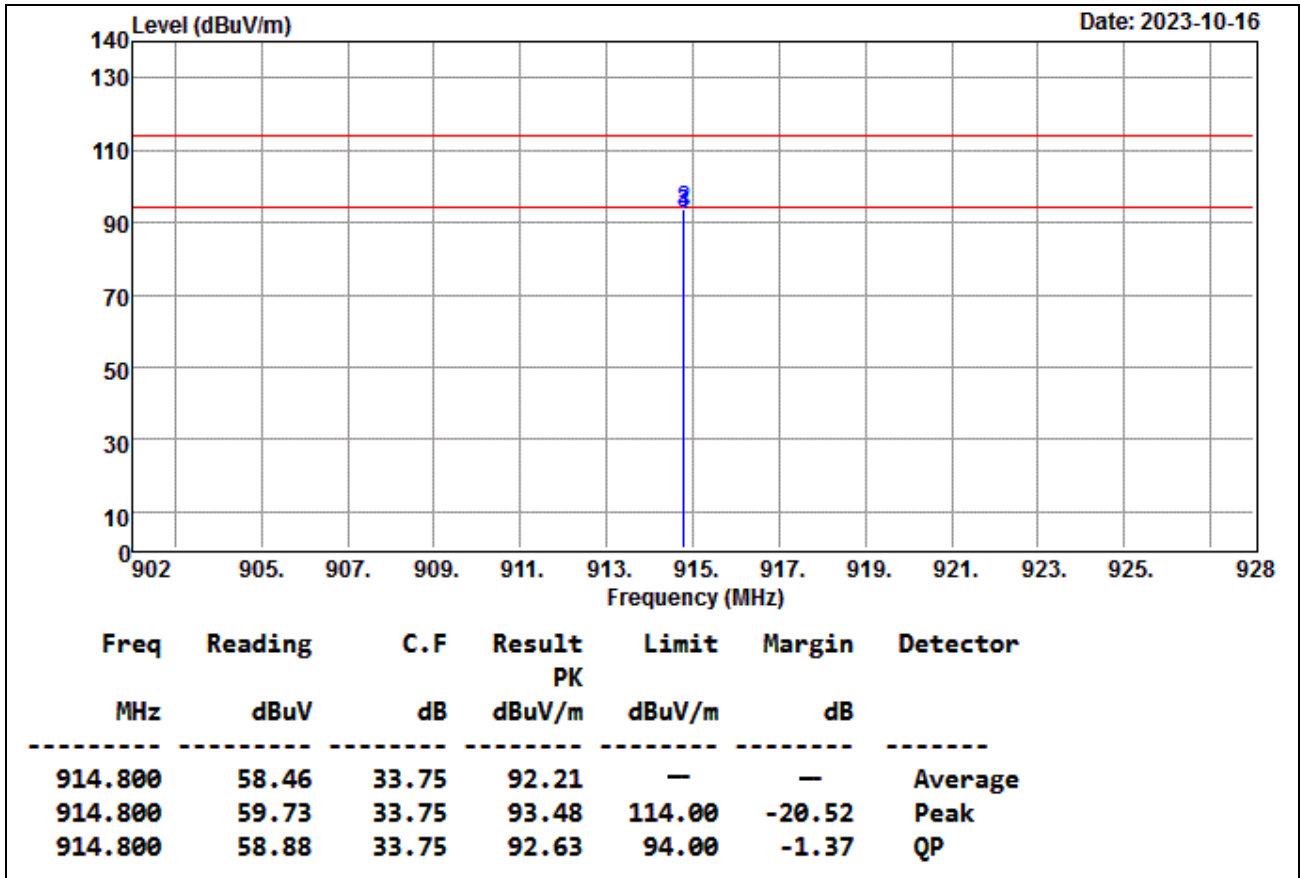
1. C.F=Antenna Factor+Cable Loss
2. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

Report No.: TMTN2310001321NR

Operation Mode: 914.8MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Horizontal



Remark:

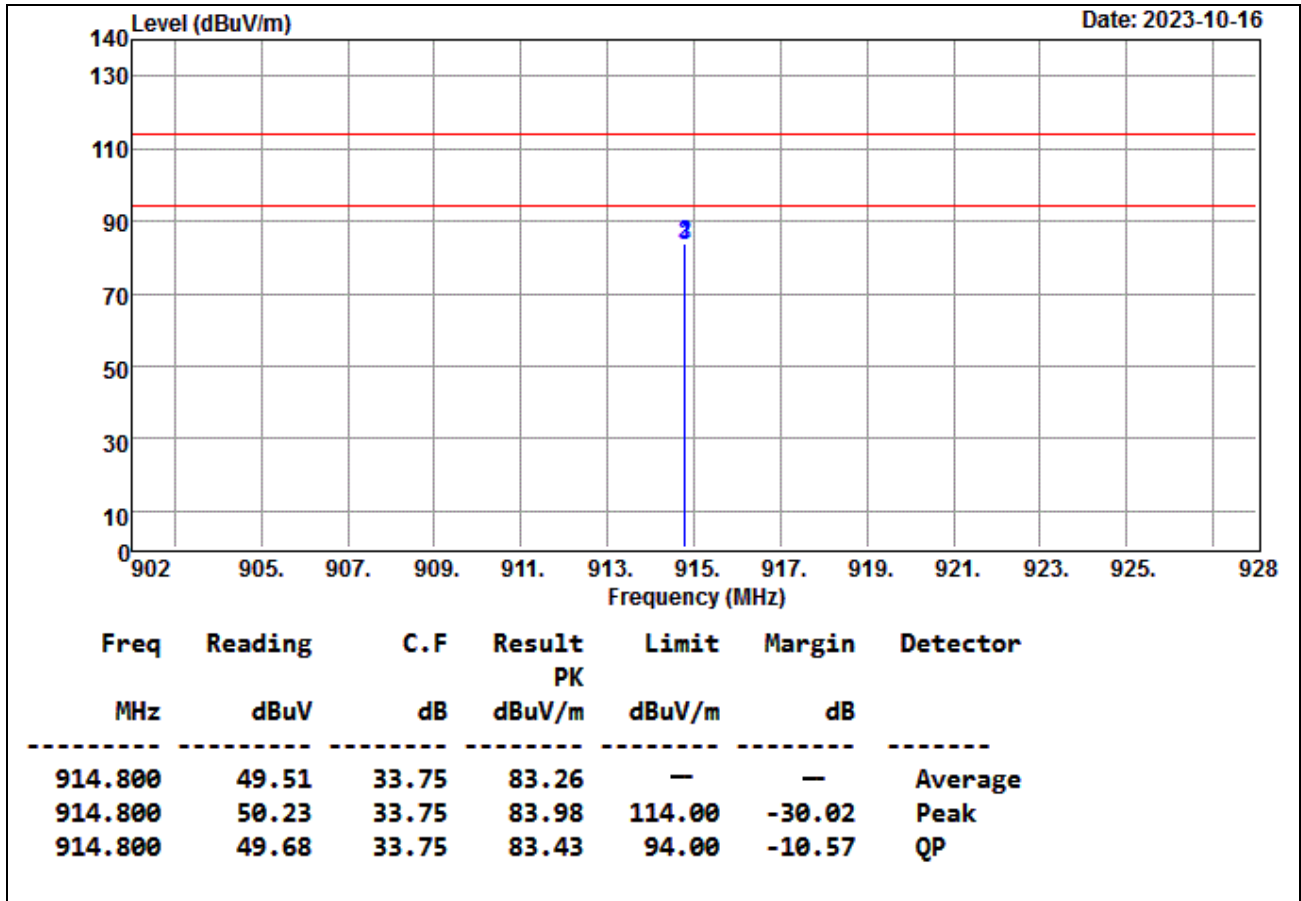
1. C.F=Antenna Factor+Cable Loss
2. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

Report No.: TMTN2310001321NR

Operation Mode: 914.8MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Vertical



Remark:

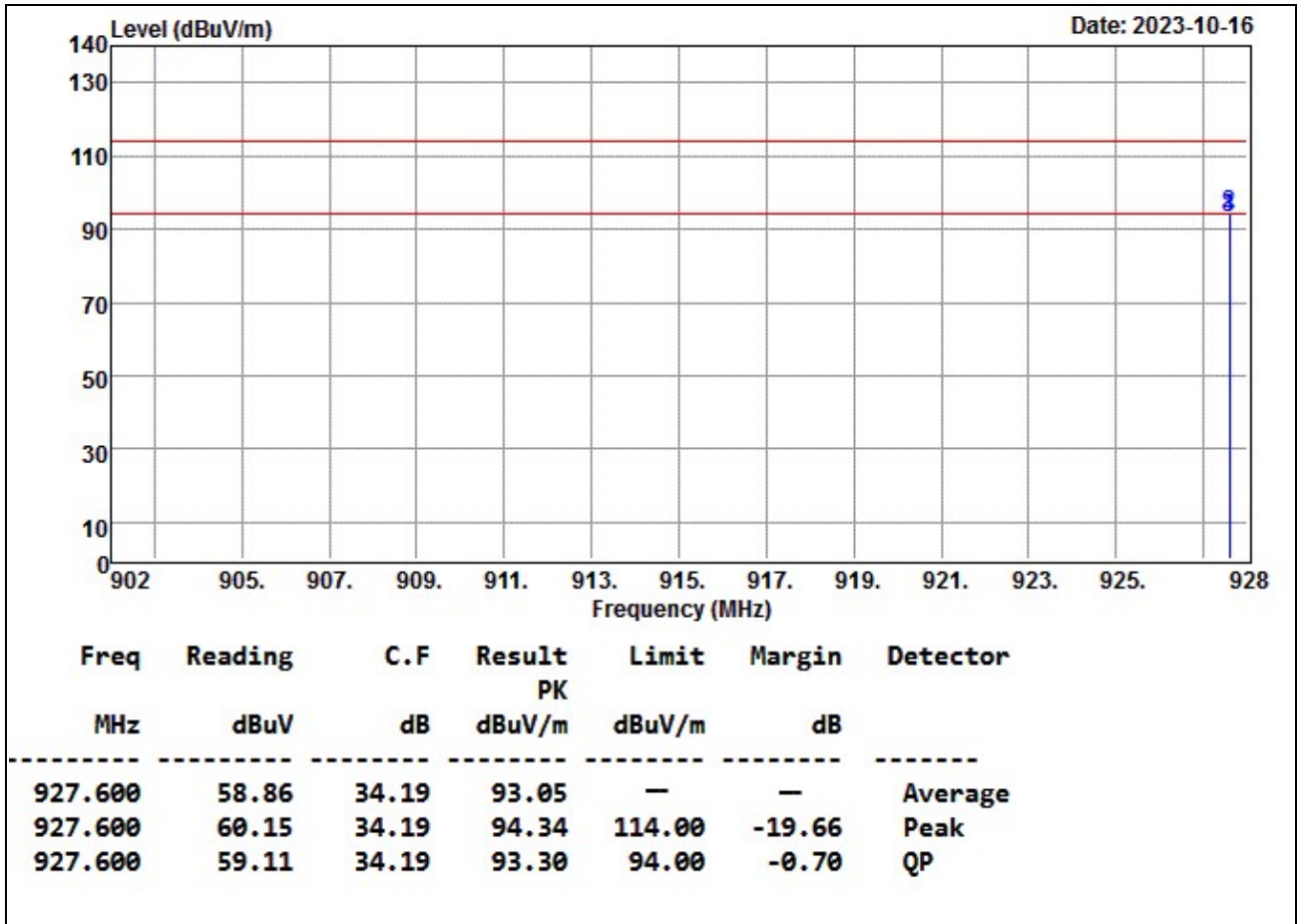
1. C.F=Antenna Factor+Cable Loss
2. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

Report No.: TMTN2310001321NR

Operation Mode: 927.6MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Horizontal



Remark:

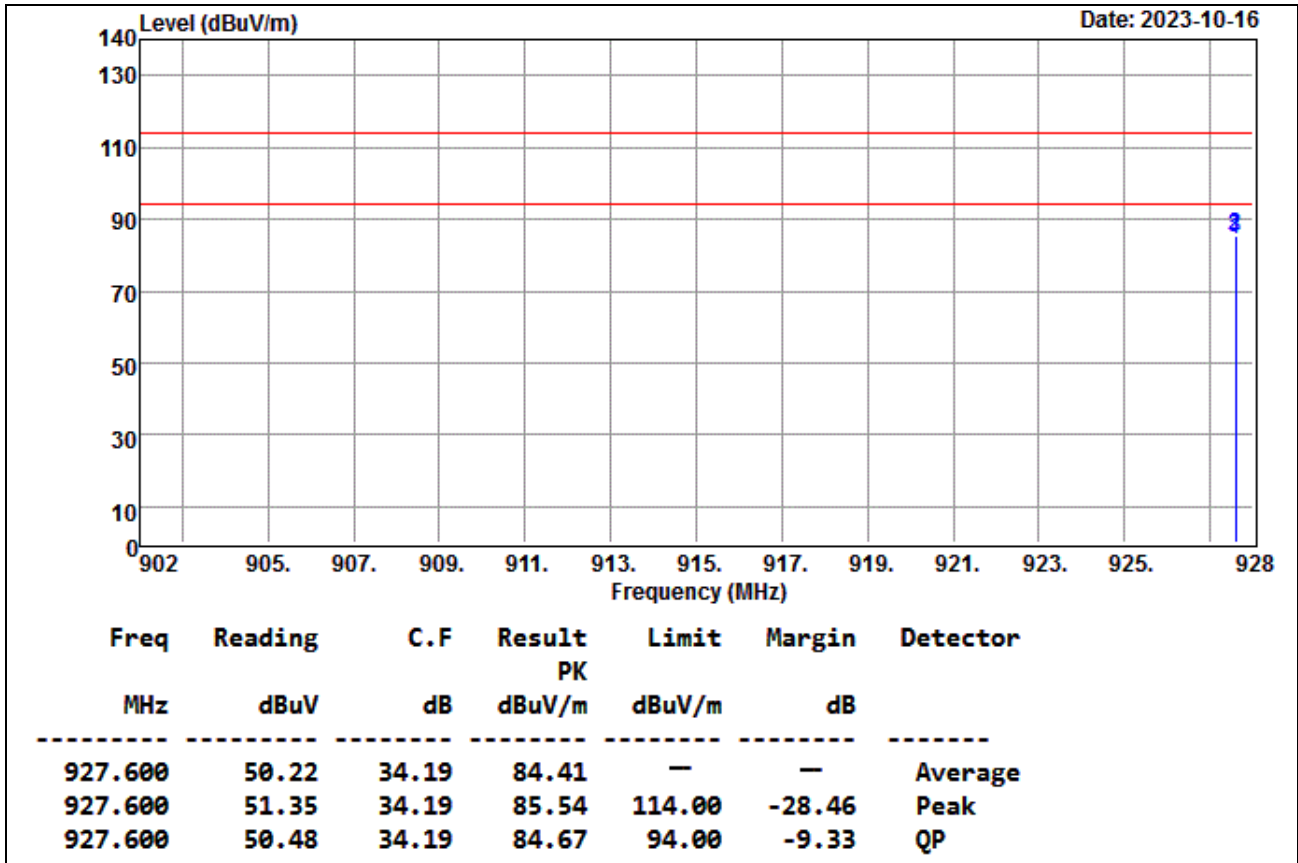
1. C.F=Antenna Factor+Cable Loss
2. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

Report No.: TMTN2310001321NR

Operation Mode: 927.6MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Vertical



Remark:

1. C.F=Antenna Factor+Cable Loss
2. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

Report No.: TMTN2310001321NR

Above 1 GHz

Operation Mode: 904.2MHz

Test Date: 2023/10/16

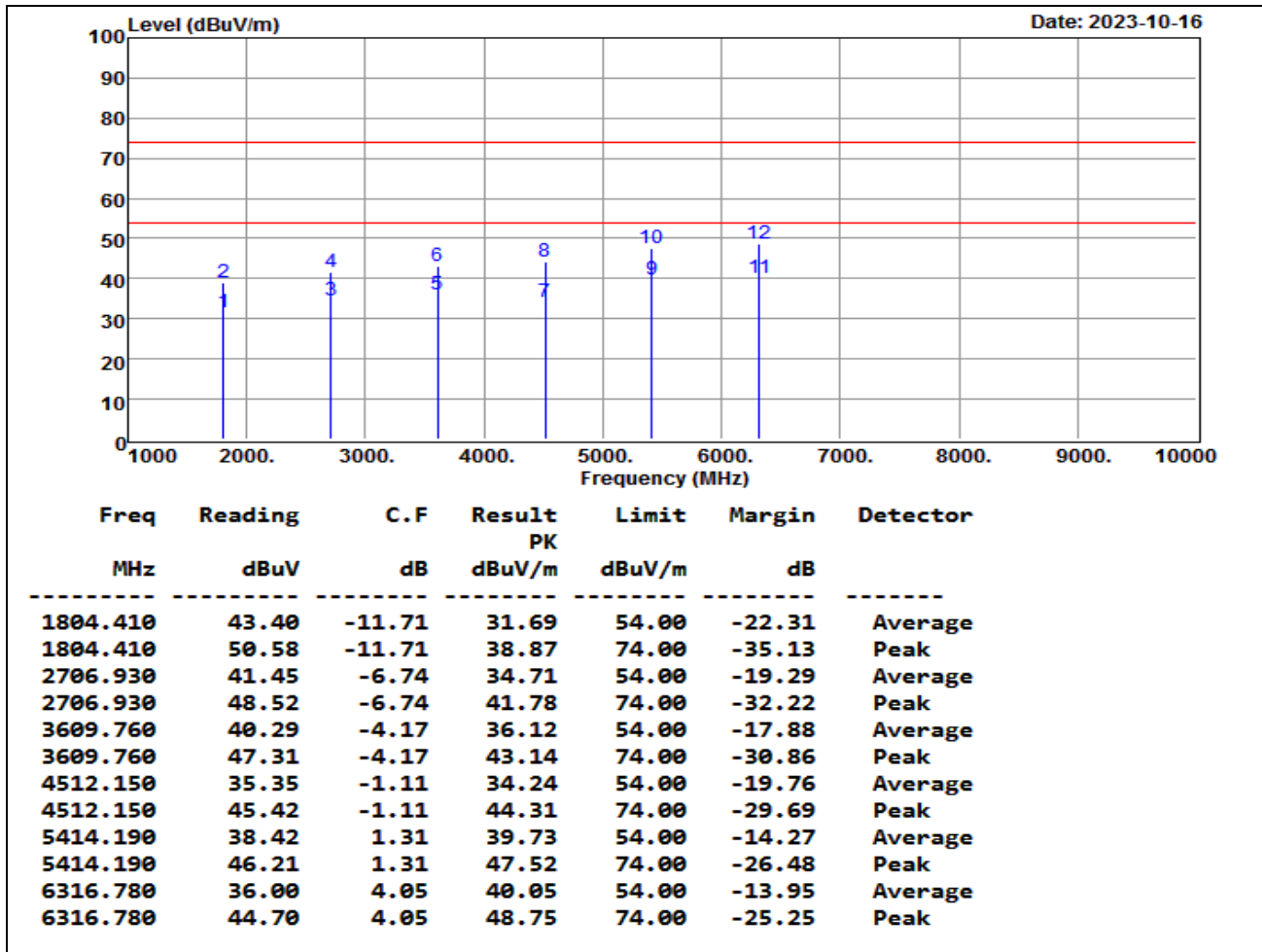
Temperature: 24.2°C

Tested by: Peter Chu

Humidity: 49% RH

Polarity: Ver. / Hor.

Horizontal



Remark:

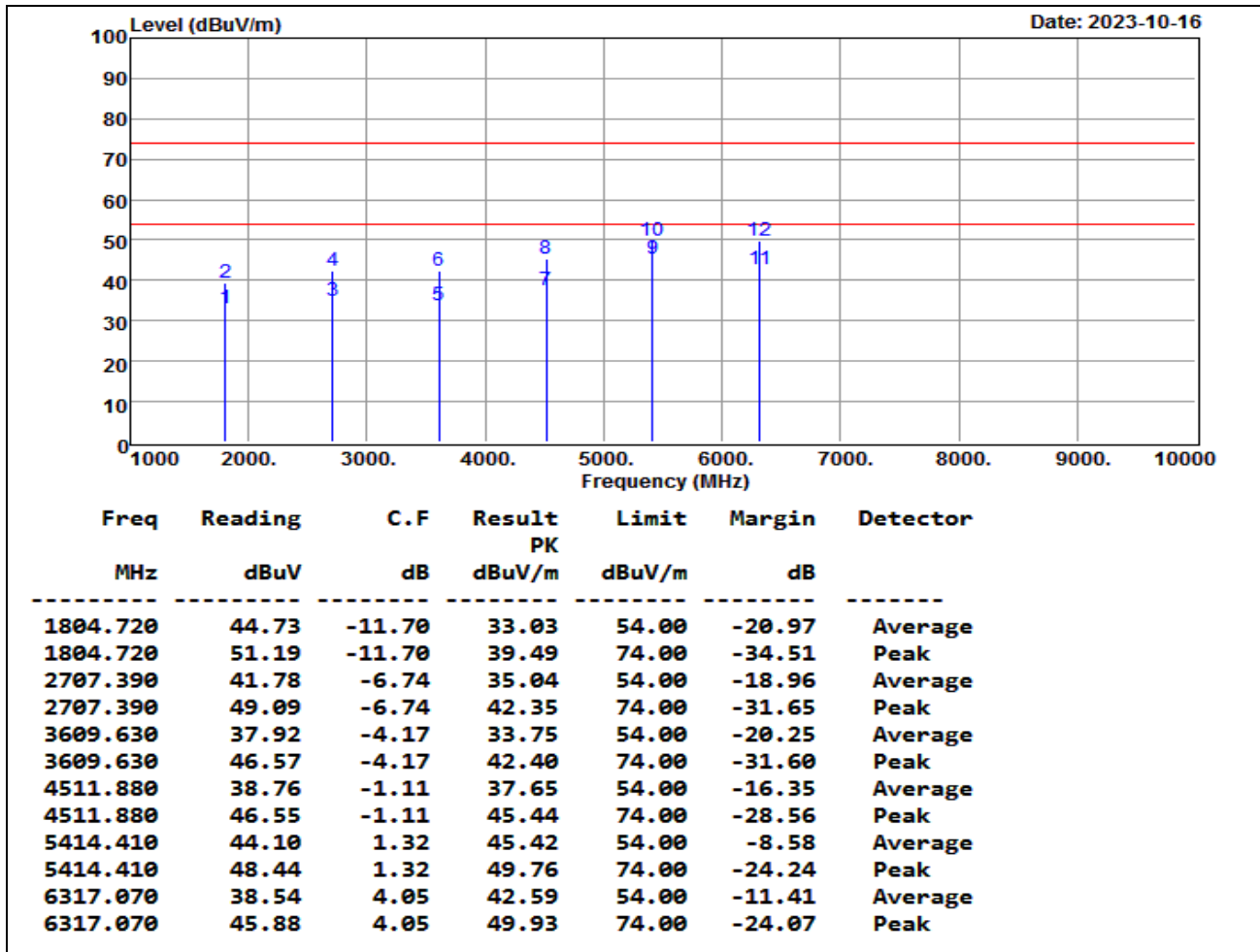
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. 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.
5. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m). Peak detector mode and average detector mode of the emission shown in Result column.

Report No.: TMTN2310001321NR

Operation Mode: 904.2MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Vertical



Remark:

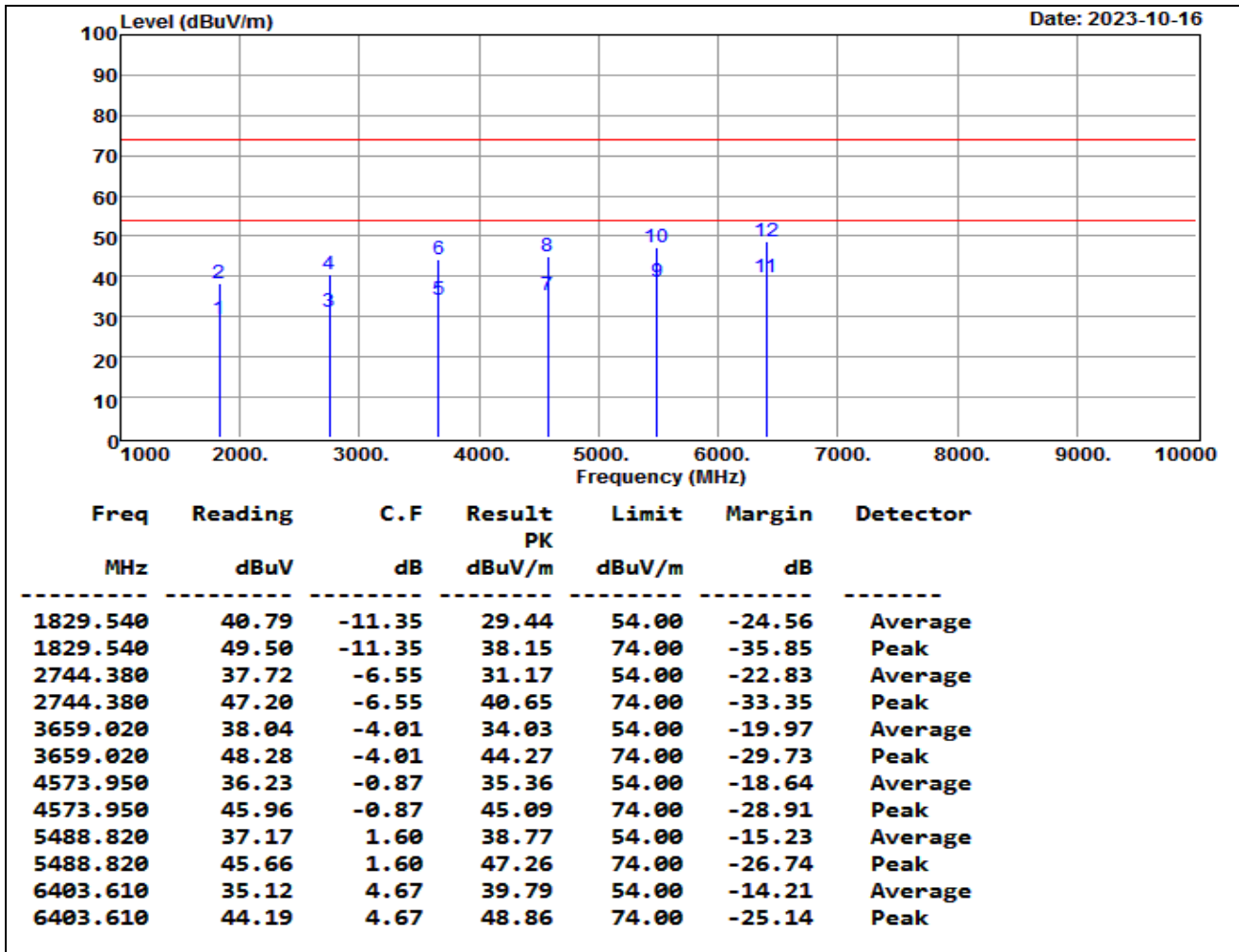
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. 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.
5. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m). Peak detector mode and average detector mode of the emission shown in Result column.

Report No.: TMTN2310001321NR

Operation Mode: 914.8MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Horizontal



Remark:

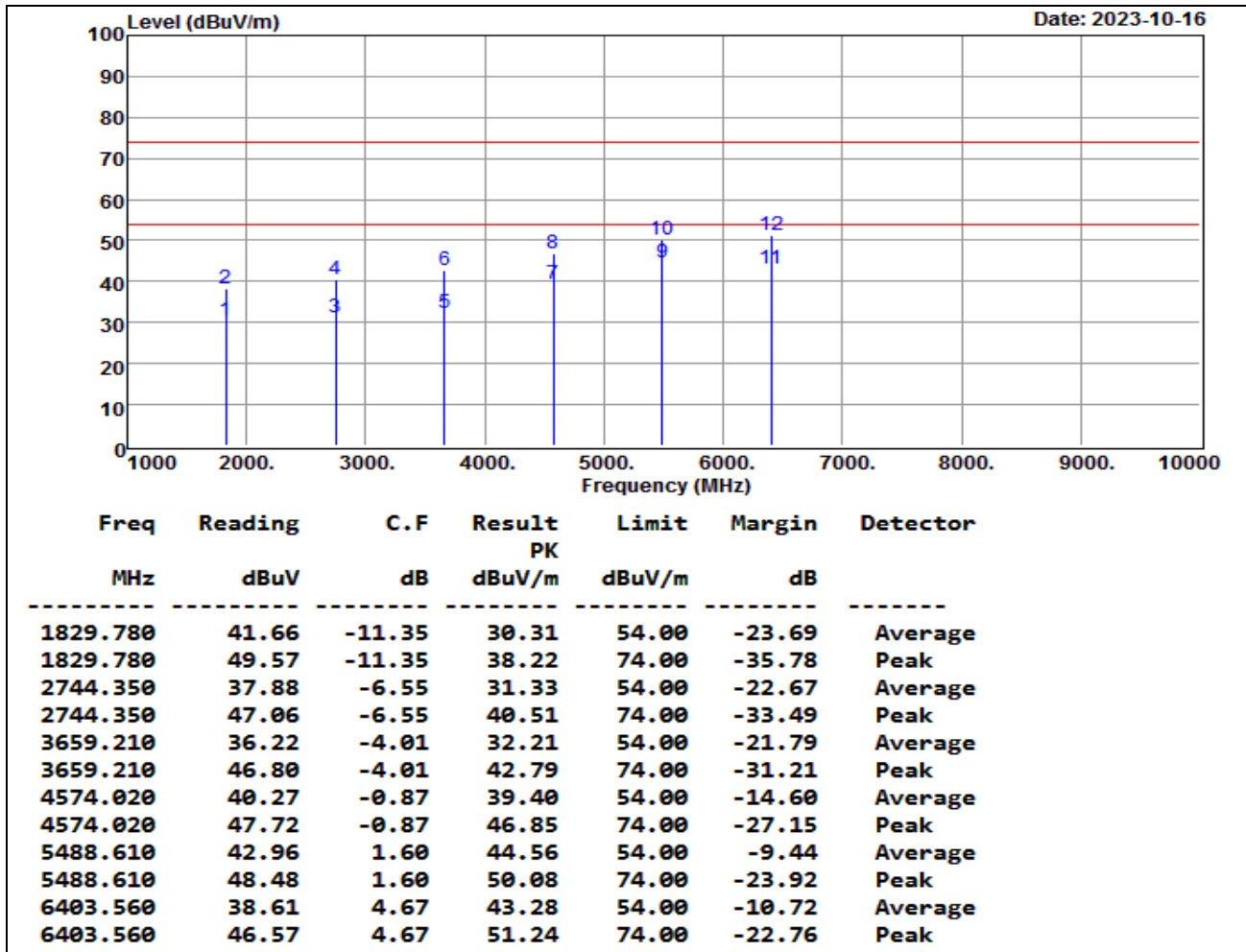
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. 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.
5. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m). Peak detector mode and average detector mode of the emission shown in Result column.

Report No.: TMTN2310001321NR

Operation Mode: 914.8MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Vertical



Remark:

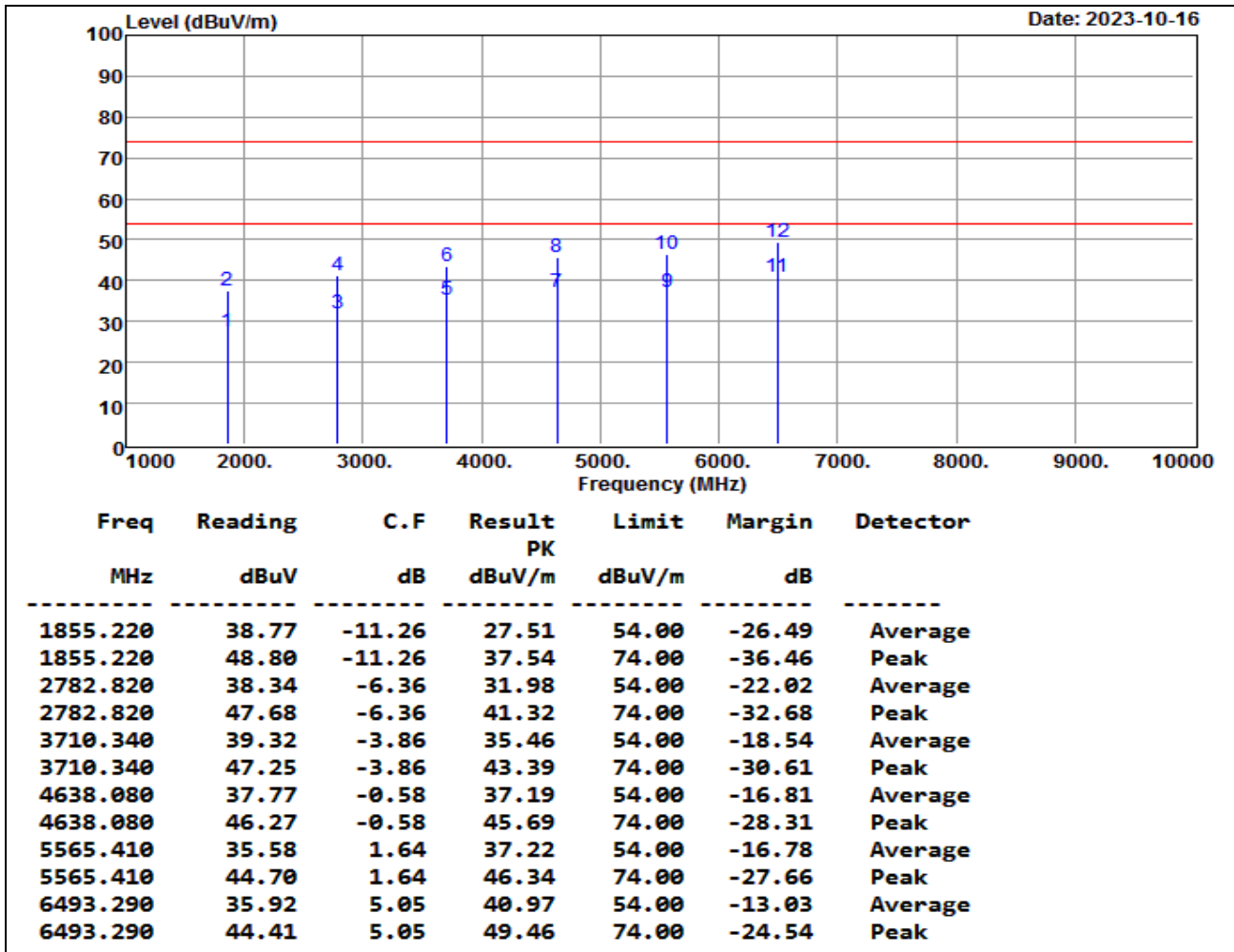
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. 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.
5. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m). Peak detector mode and average detector mode of the emission shown in Result column.

Report No.: TMTN2310001321NR

Operation Mode: 927.6MHz
Temperature: 24.2°C
Humidity: 49% RH

Test Date: 2023/10/16
Tested by: Peter Chu
Polarity: Ver. / Hor.

Horizontal



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. 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.
5. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m). Peak detector mode and average detector mode of the emission shown in Result column.

Report No.: TMTN2310001321NR

Operation Mode: 927.6MHz

Test Date: 2023/10/16

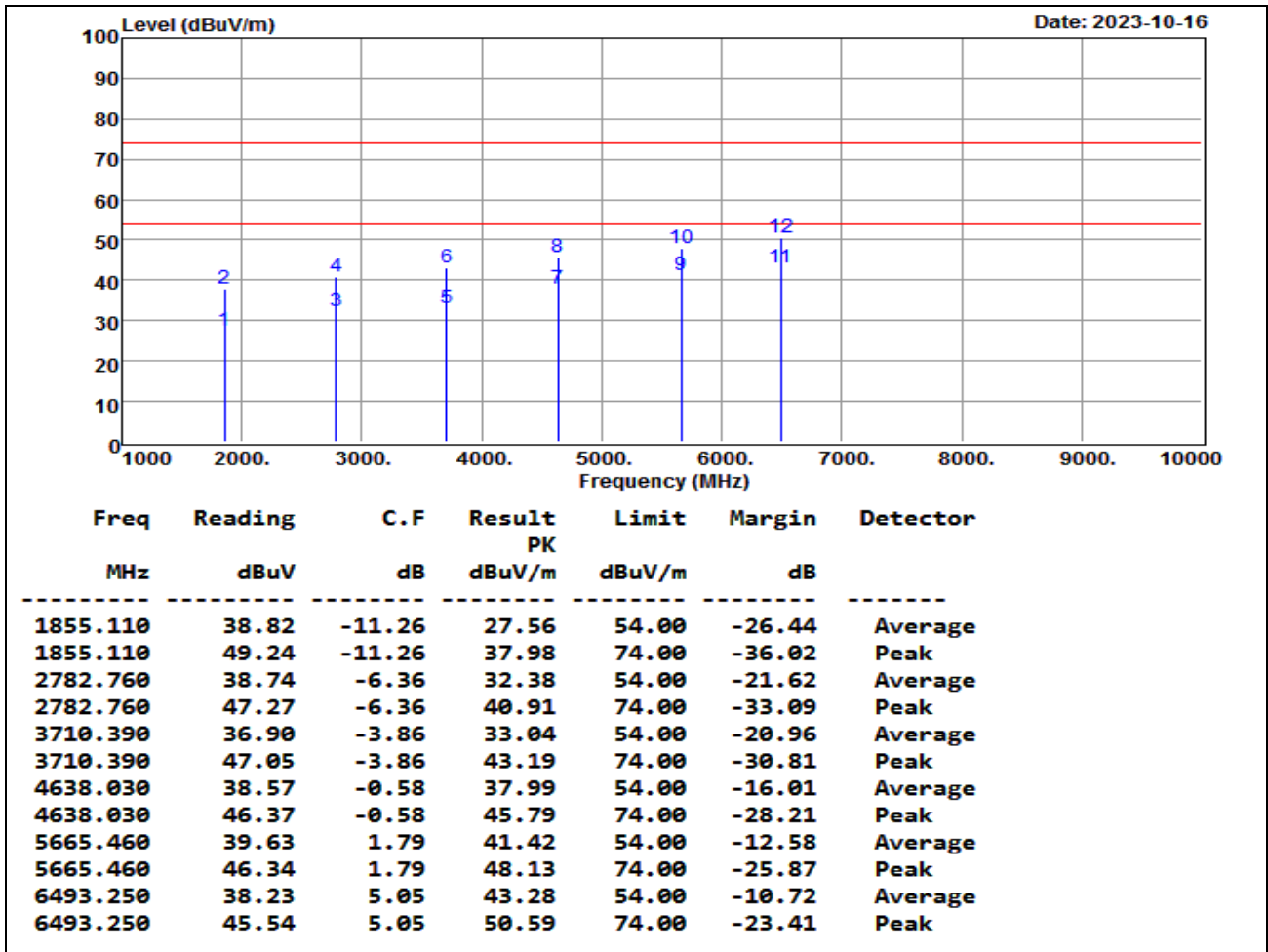
Temperature: 24.2°C

Tested by: Peter Chu

Humidity: 49% RH

Polarity: Ver. / Hor.

Vertical



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. 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.
5. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m). Peak detector mode and average detector mode of the emission shown in Result column.

7.4 POWERLINE CONDUCTED EMISSIONS

LIMIT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that 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 the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

| Frequency Range (MHz) | Limits (dBµV) | |
|-----------------------|---------------|----------|
| | 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.

MEASUREMENT EQUIPMENT USED

| Conducted Emission room #1 | | | | | |
|----------------------------|--------------|-------|---------------|------------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| Test S/W | - | | | | |

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

TEST RESULTS

※ This EUT is not connected to AC Source directly. No applicability for this test.

===End of Test Report===