# FCC PART 15 SUBPART C TEST REPORT

# for

# Mini-Kiosk

# Model No.: MK-100

# FCC ID: Y2A-MK-100

of

Applicant: Poslab Technology Corporation
Address: 1F, No.94, Dacheng Rd., YangMei City, Taoyuan County 326, Taiwan (R.O.C.)

Tested and Prepared

by

**Worldwide Testing Services (Taiwan) Co., Ltd.**

**FCC Registration No.: 930600**

**Industry Canada filed test laboratory Reg. No. IC 5679A-1**

**A2LA Accredited No.: 2732.01**



**Report No.: W6M21011-10996-C-1**

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com

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# 1 General Information

## 1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.
The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.
Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.
Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.
The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that is performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.
The test report may only be reproduced or published in full.
Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.

Specific Conditions:
Usage of the hereunder tested device in combination with other integrated or external antennas requires at least additional output power measurements, spurious emission measurements, conducted emission measurements (AC supply lines) and radio frequency exposure evaluations for each individual configuration performed, for certification by FCC.
The test sample is able to work according IEEE 802.11 b/g/n.
This report is related to FCC Part 15 C (DSSS and OFDM device).

**Tester:**

| December 02, 2010 | | Robert Ren | Robert Ren |
|---|---|---|---|
| Date | WTS-Lab. | Name | Signature |

**Technical responsibility for area of testing:**

| December 02, 2010 | | Chang Tse-Ming | Chang Tse-Ming |
|---|---|---|---|
| Date | WTS | Name | Signature |

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

## 1.2 Testing laboratory

### 1.2.1 Location

OATS
No.5-1, Shuang Sing Village,
LiShuei Rd., Wanli Township,
Taipei County 207, Taiwan (R.O.C.)
Company
Worldwide Testing Services(Taiwan) Co., Ltd.
6F, NO. 58, LANE 188, RUEY-KUANG RD.
NEIHU, TAIPEI 114, TAIWAN R.O.C.
Tel : 886-2-66068877
Fax : 886-2-66068879

### 1.2.2 Details of accreditation status

Accredited testing laboratory

A2LA accredited number: 2732.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1

**Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd. :**

| | |
|---|---|
| Name: | ./. |
| Accredited number: | ./. |
| Street: | ./. |
| Town: | ./. |
| Country: | ./. |
| Telephone: | ./. |
| Fax: | ./. |

## 1.3 Details of approval holder

| | |
|---|---|
| Name: | Poslab Technology Corporation |
| Street: | 1F, No.94, Dacheng Rd., YangMei City, |
| Town: | Taoyuan County 326, |
| Country: | Taiwan (R.O.C.) |
| Telephone: | +886-2-7729-1900 |
| Fax: | +886-2-7729-1901 |

## 1.4 Application details

Date of receipt of test item: November 04, 2010

Date of test: from November 04, 2010 to December 01, 2010

## 1.5 General information of Test item

Type of test item: Mini-Kiosk

Model Number: MK-100

Brand Name: ./.

Multi-listing model number: ./.

Photos: see Appendix

**Technical data**

Frequency band: 2.412 GHz – 2.4835GHz

**11b, 11g, 11n**

Frequency ( ch 1 or A): 2.412 GHz

Frequency ( ch 6 or B): 2.437 GHZ

Frequency ( ch 11 or C): 2.462 GHz

Number of Channels: 11 channels

Operation modes: duplex

Modulation Type: DSSS / OFDM

Fixed point-to-point operation: ☐ Yes / ☒ No

Type of Antenna: Dipole Antenna

Antenna gain: 2 dBi

Power supply: Adapter (I/P: 100-240VAC,50-60Hz, 0.4A
O/P: 5V, 2.5A, 12.5W)

Emission designator: 11b: DSSS: 17M4G1D
11g: OFDM: 17M8W7D
11n : OFDM: 18M2W7D

Host device: none

Classification :

| | |
|---|---|
| Fixed Device | ☒ |
| Mobile Device (Human Body distance ＞ 20cm) | ☐ |
| Portable Device (Human Body distance ＜ 20cm) | ☐ |
| Modular Radio Device | ☐ |

**Transmitter** **Unom**

**Mode A (802.11b)**
Power ( ch 1 or A): Conducted: 22.79 dBm
Power ( ch 6 or B): Conducted: 22.86 dBm
Power ( ch 11 or C): Conducted: 23.46 dBm

**Mode B (802.11g)**
Power ( ch 1 or A): Conducted: 20.77 dBm
Power ( ch 6 or B): Conducted: 21.22 dBm
Power ( ch 11 or C): Conducted: 21.35 dBm

**Mode C (802.11n)**
Power ( ch 1 or A): Conducted: 21.00 dBm
Power ( ch 6 or B): Conducted: 21.46 dBm
Power ( ch 11 or C): Conducted: 21.50 dBm

**Manufacturer: (if applicable)**
Name: ./.
Street: ./.
Town: ./.
Country: ./.

## 1.6 Test standards

Technical standard : FCC RULES PART 15 SUBPART C § 15.247 (2009-10)

# 2 Technical test

## 2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

**or**

The deviations as specified in 2.5 were ascertained in the course of the tests performed. ☐

## 2.2 Test environment

| | |
|---|---|
| Temperature: | 23 °C |
| Relative humidity content: | 20 ... 75 % |
| Air pressure: | 86 ... 103 kPa |
| Power supply: | Adapter (I/P: 100-240VAC,50-60Hz, 0.4A<br>O/P: 5V, 2.5A, 12.5W) |
| Extreme conditions parameters: | ./. |

## 2.3 Test Equipment List

| No. | Test equipment | Type | Serial No. | Manufacturer | Cal. Date | Next Cal. Date |
|---|---|---|---|---|---|---|
| ETSTW-CE 001 | EMI TEST RECEIVER | ESHS10 | 842121/013 | R&S | 2010/9/2 | 2011/9/1 |
| ETSTW-CE 004 | ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK | ESH3-Z5 | 840731/011 | R&S | 2010/3/2 | 2011/3/1 |
| ETSTW-CE 005 | Line-Impedance Stabilisation Network | NNBM 8126D | 137 | Schwarzbeck | 2010/9/8 | 2011/9/7 |
| ETSTW-CE 006 | IMPULSBEGRENZER PULSE LIMITER | ESH3-Z2 | 100226 | R&S | 2010/5/8 | 2011/5/7 |
| ETSTW-CE 007 | SPECTRUM ANALYZER 5GHz | FSB | 849670/001 | R&S | Pre-test Use NCR | |
| ETSTW-CE 008 | HF-EICHLEITUNG RF STEP ATTENUATOR 139dB DPSP | 334.6010.02 | 844581/024 | R&S | Function Test | |
| ETSTW-CE 009 | TEMP.&HUMIDITY CHAMBER | GTH-225-40-1P-U | MAA0305-009 | GIANT FORCE | 2010/7/21 | 2011/7/20 |
| ETSTW-CE 013 | CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK | FCC-TLISN-T4-02 | 20242 | FCC | 2010/10/21 | 2011/10/20 |
| ETSTW-CE 015 | CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK | FCC-TLISN-T8-02 | 20307 | FCC | 2010/9/6 | 2011/9/5 |
| ETSTW-RE 002 | Function Generator | 33220A | MY43004982 | Agilent | Function Test | |
| ETSTW-RE 003 | EMI TEST RECEIVER | ESI 26 | 831438/001 | R&S | 2010/8/10 | 2011/8/9 |
| ETSTW-RE 004 | EMI TEST RECEIVER | ESI 40 | 832427/004 | R&S | 2010/9/14 | 2011/9/13 |
| ETSTW-RE 005 | EMI TEST RECEIVER | ESVS10 | 843207/020 | R&S | 2010/9/2 | 2011/9/1 |
| ETSTW-RE 006 | Attenuator 10dB | 50HF-010-5N-1 | None | STEP | 2010/3/5 | 2011/3/4 |
| ETSTW-RE 010 | ABSORBING CLAMP | MDS 21 | 3469 | Schwarzbeck | 2010/9/6 | 2011/9/5 |
| ETSTW-RE 012 | TUNABLE BANDREJECT FILTER | D.C 0309 | 146 | K&L | Function Test | |
| ETSTW-RE 013 | TUNABLE BANDREJECT FILTER | D.C 0336 | 397 | K&L | Function Test | |
| ETSTW-RE 018 | MICROWAVE HORN ANTENNA | AT4560 | 27212 | AR | 2010/10/4 | 2011/10/3 |
| ETSTW-RE 020 | MICROWAVE HORN ANTENNA | AT4002A | 306915 | AR | Function Test | |
| ETSTW-RE 021 | SWEEP GENERATOR | SWM05 | 835130/010 | R&S | 2010/8/20 | 2011/8/19 |
| ETSTW-RE 027 | Passive Loop Antenna | 6512 | 00034563 | EMCO | 2010/7/22 | 2011/7/21 |
| ETSTW-RE 028 | Log-Periodic Dipole Array Antenna | 3148 | 34429 | EMCO | 2010/4/14 | 2011/4/13 |
| ETSTW-RE 029 | Biconical Antenna | 3109 | 33524 | EMCO | 2010/4/14 | 2011/4/13 |
| ETSTW-RE 030 | Double-Ridged Guide Horn Antenna | 3117 | 00035224 | EMCO | 2010/3/2 | 2011/3/1 |
| ETSTW-RE 032 | Millivoltmeter | URV 55 | 849086/013 | R&S | 2010/10/4 | 2011/10/3 |
| ETSTW-RE 033 | WaveRunner 6000A Serise Oscilloscope | WAVERUNNER 6100A | LCRY0604P14508 | LeCroy | Function Test | |
| ETSTW-RE 034 | Power Sensor | URV5-Z4 | 839313/006 | R&S | 2010/10/4 | 2011/10/3 |
| ETSTW-RE 044 | Log-Periodic Antenna | HL050 | 100094 | R&S | 2010/5/11 | 2011/5/10 |
| ETSTW-RE 047 | PSA SERIES SPECTRUM ANALYZER | E4445A | MY46181369 | Agilent | Pre-test Use NCR | |
| ETSTW-RE 048 | Triple Loop Antenna | HXYZ 9170 | HXYZ 9170-134 | Schwarzbeck | 2010/8/30 | 2011/8/29 |
| ETSTW-RE 049 | TRILOG Super Broadband test Antenna | VULB 9160 | 9160-3185 | Schwarzbeck | 2010/4/13 | 2011/4/12 |
| ETSTW-RE 050 | Attenuator 10dB | 50HF-010-1 | None | JFW | 2010/3/5 | 2011/3/4 |
| ETSTW-RE 051 | Attenuator 6dB | 50HF-006-1 | None | JFW | 2010/3/5 | 2011/3/4 |

| | | | | | | |
|---|---|---|---|---|---|---|
| ETSTW-RE 053 | Attenuator 3dB | 50HF-003-1 | None | JFW | 2010/3/5 | 2011/3/4 |
| ETSTW-RE 055 | SPECTRUM ANALYZER | FSU 26 | 200074 | R&S | 2010/6/3 | 2011/6/2 |
| ETSTW-RE 060 | Attenuator 30dB | 5015-30 | F651012z-01 | ATM | Pre-test Use NCR | |
| ETSTW-RE 061 | Amplifier Module | CHC 1 | None | ETS | 2010/9/27 | 2011/9/26 |
| ETSTW-RE 062 | Amplifier Module | CHC 2 | None | KMIC | 2010/11/10 | 2011/11/9 |
| ETSTW-RE 064 | Bluetooth Test Set | MT8852B-042 | 6K00005709 | Anritsu | Function Test | |
| ETSTW-RE 065 | Amplifier | AMF-6F-18002650-25-10P | 941608 | MITEQ | 2010/4/13 | 2011/4/12 |
| ETSTW-RE 066 | Highpass Filter | H1G013G1 | 206015 | MICROWAVE CIRCUITS, INC. | 2010/3/5 | 2011/3/4 |
| ETSTW-RE 072 | CELL SITE TEST SET | 8921A | 3339A00375 | HP | 2010/10/7 | 2011/10/6 |
| ETSTW-RE 073 | Power Meter | N1911A | MY45100769 | Agilent | 2010/1/7 | 2011/1/6 |
| ETSTW-RE 074 | Power Sensor | N1921A | MY45241198 | Agilent | 2010/1/7 | 2011/1/6 |
| ETSTW-RE 081 | Highpass Filter | H03G13G1 | 4260-02 DC0428 | MICROWAVE CIRCUITS, INC. | 2010/3/5 | 2011/3/4 |
| ETSTW-RE 096 | SIGNAL GENERATOR | SMIQ 03B | 102274 | R&S | 2010/5/31 | 2011/5/30 |
| ETSTW-RE 099 | DC Block | 50DB-007-1 | None | JFW | 2010/3/5 | 2011/3/4 |
| ETSTW-RE 105 | 2.4GHz Notch Filter | NO124411 | 39555 | MICROWAVE CIRCUITS, INC. | 2010/3/25 | 2011/3/24 |
| ETSTW-RE 106 | Humidity Temperature Meter | TES-1366 | 091011113 | TES | 2010/3/25 | 2011/3/24 |
| ETSTW-GSM 002 | Universal Radio Communication Tester | CMU 200 | 109439 | R&S | 2010/10/7 | 2011/10/6 |
| ETSTW-GSM 019 | Band Reject Filter | WRCTF824/849-822/851-40/12+9SS | 3 | WI | Function Test | |
| ETSTW-GSM 020 | Band Reject Filter | WRCD1747/1748-1743/1752-32/5SS | 1 | WI | Function Test | |
| ETSTW-GSM 021 | Band Reject Filter | WRCD1879.5/1880.5-1875.5/1884.5-32/5SS | 3 | WI | Function Test | |
| ETSTW-GSM 022 | Band Reject Filter | WRCT901.9/903.1-904.25-50/8SS | 1 | WI | Function Test | |
| ETSTW-GSM 023 | Power Divider | 4901.19.A | None | SUHNER | 2010/9/20 | 2011/9/19 |
| ETSTW-Cable 002 | Microwave Cable | SUCOFLEX 104（S_Cable 7） | 238093 | HUBER+SUHNER | 2010/9/27 | 2011/9/26 |
| ETSTW-Cable 003 | Microwave Cable | SUCOFLEX 104（S_Cable 11） | 209953 | HUBER+SUHNER | 2010/9/27 | 2011/9/26 |
| ETSTW-Cable 006 | Microwave Cable | SUCOFLEX 104（S_Cable 8） | 238095 | HUBER+SUHNER | 2010/3/5 | 2011/3/4 |
| ETSTW-Cable 010 | BNC Cable | 5 M BNC Cable | None | JYE BAO CO.,LTD. | 2010/3/5 | 2011/3/4 |
| ETSTW-Cable 011 | BNC Cable | BNC Cable 1 | None | JYE BAO CO.,LTD. | 2010/8/19 | 2011/8/18 |
| ETSTW-Cable 012 | BNC Cable | BNC Cable 2 | None | JYE BAO CO.,LTD. | 2010/8/19 | 2011/8/18 |
| ETSTW-Cable 013 | Microwave Cable | SUCOFLEX 104（S_Cable 5） | 232345 | HUBER+SUHNER | 2010/3/5 | 2011/3/4 |
| ETSTW-Cable 022 | N TYPE Cable | OATS Cable 3 | 0002 | JYE BAO CO.,LTD. | 2010/3/5 | 2011/3/4 |
| ETSTW-Cable 028 | Microwave Cable | FA147A0015M2020 | 30064-2 | UTIFLEX | 2010/9/13 | 2011/9/12 |
| ETSTW-Cable 029 | Microwave Cable | FA147A0015M2020 | 30064-3 | UTIFLEX | 2010/9/13 | 2011/9/12 |
| ETSTW-Cable 039 | Microwave Cable | SUCOFLEX 104（S_Cable 19） | 316739 | HUBER+SUHNER | 2010/3/5 | 2011/3/4 |
| WTSTW-SW 001 | EMI TEST SOFTWARE | Harmonics-1000 | None | EMC PARTNER | HARCS Version 4.16<br>Firmware Version 2.18 | |
| WTSTW-SW 002 | EMI TEST SOFTWARE | EZ_EMC | None | Farad | Version ETS-03A1 | |
| WTSTW-SW 003 | EMS TEST SOFTWARE | i2 | None | AUDIX | Version 3.2007-8-17b | |
| WTSTW-SW 005 | GSM Fading Level Correction | GSMFadLevCor | None | R&S | Version 1.66 | |

## 2.4 General Test Procedure

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.4-2003 using a 50µH LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

**RADIATION INTERFERENCE:** The test procedure used was according to ANSI STANDARD C63.4-2003 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBµV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

| Freq (MHz) | METER READING + ACF + CABLE LOSS (to the receiver) = FS |
|---|---|
| 33 | 20 dBµV + 10.36 dB + 6 dB = 36.36 dBµV/m @3m |

The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.4-2003 Section 13.1.2. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
(4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1)-(a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this Section, whichever is the higher frequency range of investigation.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.
Measurements were made by Worldwide Testing Services(Taiwan) Co., Ltd. at the registered open field test site located at No.5-1, Shuang Sing Village, LiShuei Rd., Wanli Township, Taipei County 207, Taiwan (R.O.C.) The Registration Number: 930600.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

The formula is as follows:
Average = Peak + Duty Factor
Duty Factor = 20 log (dwell time/T)
T = 100ms when the pulse train period is over 100 ms or the period of the pulse train.

Modified Limits for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

## 3 Test results (enclosure)

| TEST CASE | Para. Number | Required | Test passed | Test failed |
|---|---|---|---|---|
| Peak Output Power | 15.247(b)(3) | ☒ | ☒ | ☐ |
| Equivalent radiated Power | 15.247(b)(3) | ☒ | ☒ | ☐ |
| Spurious Emissions radiated – Transmitter operating | 15.247(c): 15.209 | ☒ | ☒ | ☐ |
| Band Edge Measurement | 15.247(c) | ☒ | ☒ | ☐ |
| Minimum 6 dB Bandwidth | 15.247(a)(2) | ☒ | ☒ | ☐ |
| Peak Power Spectral Density | 15.247(d) | ☒ | ☒ | ☐ |
| Radiated Emission from Digital Part | 15.109 | ☐ | ☐ | ☐ |
| Power Line Conducted Emission | 15.207 | ☒ | ☒ | ☐ |

**Note:**

1. The Pre-test was performed to determine the worst case mode from all possible combinations between all available modulations, data rates, bandwidths, and spatial stream modes.
2. The worst case mode was base on the investigations by measuring the peak and average power according to the description above. The detail of chosen mode for full testing are as below:

| Mode | Available channel | Chosen Channel | Modulation Technology | Modulation Type | Data Rate (Mbps) |
|---|---|---|---|---|---|
| 802.11b | 1 to 11 | 1,6,11 | DSSS | DBPSK | 1 |
| 802.11g | 1 to 11 | 1,6,11 | OFDM | BPSK | 6 |
| Draft 802.11n (20MHz) | 1 to 11 | 1,6,11 | OFDM | BPSK | 6.5 |

## 3.1 Peak Output Power (transmitter)

FCC Rule: 15.247(b)(3)

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant.

The power was measured with modulation (declared by the applicant).

Mode 802.11b

| Test condition | | Conducted Power | | |
|---|---|---|---|---|
| | | Channel A | Channel B | Channel C |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | [dBm] | [dBm] | [dBm] |
| | | 22.79 | 22.86 | 23.46 |

Mode 802.11g

| Test condition | | Conducted Power | | |
|---|---|---|---|---|
| | | Channel A | Channel B | Channel C |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | [dBm] | [dBm] | [dBm] |
| | | 20.77 | 21.22 | 21.35 |

Mode 802.11n

| Test condition | | Conducted Power | | |
|---|---|---|---|---|
| | | Channel A | Channel B | Channel C |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | [dBm] | [dBm] | [dBm] |
| | | 21.00 | 21.46 | 21.50 |

Mode 802.11b

| Test condition<br>$T_{nom}$= --°C, $V_{nom}$ = -- V | Signal Field strength TX highest power mode<br>dB $\mu$ V/m |
|---|---|
| Frequency [MHz] | -- |
| -- | |

Mode 802.11g

| Test condition<br>$T_{nom}$= --°C, $V_{nom}$ = -- V | Signal Field strength TX highest power mode<br>dB $\mu$ V/m |
|---|---|
| Frequency [MHz] | -- |
| -- | |

Mode 802.11n 20MHz

| Test condition<br>$T_{nom}$= --°C, $V_{nom}$ = -- V | Signal Field strength TX highest power mode<br>dB $\mu$ V/m |
|---|---|
| Frequency [MHz] | -- |
| -- | |

Limits:

| Frequency<br>MHz | Power<br>dBm |
|---|---|
| 902 - 928 | 30 |
| 2400 – 2483.5 | 30 |
| 5725 – 5850 | 30 |

In case of employing transmitter antennas having antenna gain ＞ 6 dBi and using fixed point-to point operation consider §15.247 (b)(4)

Test equipment used: ETSTW-RE 055

Explanation: The diagrams for the peak output power measurements are included in Appendix.

## 3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain
EIRP = 23.46 dBm +2 dBi
= 25.46 dBm
Limit: EIRP = +36 dBm for Antenna gain < 6 dBi

Test equipment used: ETSTW-RE 055

## 3.3 RF Exposure Compliance Requirements

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.
The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4\pi R^2}$$

S – Power Density
P – Output power ERP
R – Distance
D – Cable Loss
AG – Antenna Gain

| Item | Unit | Value | **Remarks** |
|---|---|---|---|
| P | mW | 221.8196 | Peak value |
| D | dB | | |
| AG | dBi | 2 | |
| G | | 1.58 | Calculated Value |
| R | cm | 20 | Assumed value |
| S | $mW/cm^2$ | 0.0697 | Calculated value |

Limits:

| **Limit for General Population / Uncontrolled Exposure** | |
|---|---|
| Frequency (MHz) | Power Density ($mW/cm^2$) |
| 1500 – 100.000 | 1.0 |

## 3.4 Transmitter Radiated Emissions in Restricted Bands

FCC Rules: 15.247 (c), 15.205, 15.209, 15.35
Radiated emission measurements were performed from 30 MHz to 26500 MHz.
For radiated emission tests, the analyzer setting was as followings:

Frequency ≦ 1 GHz, RBW:100 kHz, VBW: 100 kHz (Peak measurements)
Frequency ＞1 GHz, RBW: 1 MHz, VBW: 1 MHz (Peak measurements)
Frequency ＞1 GHz , RBW:1 MHz , VBW: 10 Hz (Average measurements)

Limits.

For frequencies below 1GHz:

| Frequency of Emission (MHz) | Field strength (microvolts/meter) | Field Strength (dB microvolts/meter) |
|---|---|---|
| 30 - 88 | 100 | 40.0 |
| 88 - 216 | 150 | 43.5 |
| 216 - 960 | 200 | 46.0 |
| Above | 500 | 54.0 |

For frequencies above 1GHz (Average measurements).

Guidance on Measurement of Digit Transmission Systems:
“If the emission is pulsed, modify the unit for continuous operation, use the setting shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.”

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty cycle correction = 20 log (dwell time/ 100ms)

Note: No duty cycle correction was added to the reading of this EUT.

Explanation: see attached diagrams in Appendix.

## 3.5 Spurious Emissions (tx)

Spurious emission was measured with modulation (declared by manufacturer).

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))

FCC Rule: 15.247(c), 15.35
For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement.

Limits:

For frequencies above 1GHz (Peak measurements).
Modified Limit for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

For frequencies above 1GHz (Average measurements).
Max. reading – 20dB

Max. reading – 20 dB
Guidance on Measurement of Digit Transmission Systems:
“If the emission is pulsed, modify the unit for continuous operation, use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.”

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty Cycle correction = 20 log (dwell time/100ms)

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028, ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 044

Note: No duty cycle correction was added to the reading of EUT.

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SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance with point 2.3.

Calculation of test results:
Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits.
In the Table being listed the critical peak and average value and exhibit the compliance with the above calculated Limits.

If in the column's correction factor states a value then the max. Field strength in the same row is corrected by a value gained from the "Correction Factor".

| | | | | | |
|---|---|---|---|---|---|
| Model: | MK-100 | Date: | 2010/11/24 | | |
| Mode: | 802.11b CH1 | Temperature: | 21.6 °C | Engineer: | Robert |
| Polarization: | Horizontal | Humidity: | 54 % | | |

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 25.49 | peak | 15.11 | 40.60 | 43.50 | -2.90 | 200 | 150 |
| 408.0161 | 10.65 | peak | 19.05 | 29.70 | 46.00 | -16.30 | 130 | 150 |
| 997.1944 | 8.06 | peak | 29.18 | 37.24 | 54.00 | -16.76 | 260 | 150 |

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4824.0000 | 48.06 | --- | -4.94 | 43.12 | --- | 74.00 | 54.00 | -30.88 | 130 | 150 |
| 7238.4770 | 50.30 | --- | -2.38 | 47.92 | --- | 74.00 | 54.00 | -26.08 | 140 | 150 |
| 9646.7940 | 35.34 | --- | 12.84 | 48.18 | --- | 74.00 | 54.00 | -25.82 | 270 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 26.67 | peak | 15.11 | 41.78 | 43.50 | -1.72 | 100 | 150 |
| 409.4190 | 8.97 | peak | 19.09 | 28.06 | 46.00 | -17.94 | 240 | 150 |
| 988.7776 | 7.17 | peak | 29.07 | 36.24 | 54.00 | -17.76 | 130 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4824.0000 | 47.87 | --- | -4.94 | 42.93 | --- | 74.00 | 54.00 | -31.07 | 100 | 150 |
| 7238.4770 | 51.18 | --- | -2.38 | 48.80 | --- | 74.00 | 54.00 | -25.20 | 170 | 150 |
| 9646.7940 | 36.24 | --- | 12.84 | 49.08 | --- | 74.00 | 54.00 | -24.92 | 130 | 150 |

Mode: 802.11b CH6

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 24.82 | peak | 15.11 | 39.93 | 43.50 | -3.57 | 160 | 150 |
| 406.6133 | 9.66 | peak | 19.01 | 28.67 | 46.00 | -17.33 | 100 | 150 |
| 998.5972 | 7.91 | peak | 29.20 | 37.11 | 54.00 | -16.89 | 270 | 150 |

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4873.7480 | 48.15 | --- | -4.86 | 43.29 | --- | 74.00 | 54.00 | -30.71 | 100 | 150 |
| 7318.6370 | 49.89 | --- | -2.79 | 47.10 | --- | 74.00 | 54.00 | -26.90 | 70 | 150 |
| 9751.5030 | 37.64 | --- | 12.81 | 50.45 | --- | 74.00 | 54.00 | -23.55 | 100 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 25.91 | peak | 15.11 | 41.02 | 43.50 | -2.48 | 280 | 150 |
| 408.0161 | 8.93 | peak | 19.05 | 27.98 | 46.00 | -18.02 | 270 | 150 |
| 980.3607 | 7.40 | peak | 28.96 | 36.36 | 54.00 | -17.64 | 130 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4873.7480 | 49.41 | --- | -4.86 | 44.55 | --- | 74.00 | 54.00 | -29.45 | 210 | 150 |
| 7310.6210 | 50.89 | --- | -2.76 | 48.13 | --- | 74.00 | 54.00 | -25.87 | 310 | 150 |
| 9751.5030 | 37.65 | --- | 12.81 | 50.46 | --- | 74.00 | 54.00 | -23.54 | 140 | 150 |

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Mode: 802.11b CH11
Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 25.56 | peak | 15.11 | 40.67 | 43.50 | -2.83 | 290 | 150 |
| 406.6133 | 11.98 | peak | 19.01 | 30.99 | 46.00 | -15.01 | 140 | 150 |
| 988.7776 | 7.26 | peak | 29.07 | 36.33 | 54.00 | -17.67 | 120 | 150 |

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4924.0000 | 45.11 | --- | -4.89 | 40.22 | --- | 74.00 | 54.00 | -33.78 | 130 | 150 |
| 7386.0000 | 47.30 | --- | -3.09 | 44.21 | --- | 74.00 | 54.00 | -29.79 | 230 | 150 |
| 9846.6930 | 36.19 | --- | 13.02 | 49.21 | --- | 74.00 | 54.00 | -24.79 | 290 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 26.38 | peak | 15.11 | 41.49 | 43.50 | -2.01 | 210 | 150 |
| 406.6133 | 9.28 | peak | 19.01 | 28.29 | 46.00 | -17.71 | 170 | 150 |
| 990.1804 | 7.69 | peak | 29.09 | 36.78 | 54.00 | -17.22 | 340 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4921.8440 | 48.87 | --- | -4.89 | 43.98 | --- | 74.00 | 54.00 | -30.02 | 260 | 150 |
| 7390.7820 | 51.94 | --- | -3.11 | 48.83 | --- | 74.00 | 54.00 | -25.17 | 130 | 150 |
| 9846.6930 | 33.57 | --- | 13.02 | 46.59 | --- | 74.00 | 54.00 | -27.41 | 130 | 150 |

Mode: 802.11g CH1
Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 24.52 | peak | 15.11 | 39.63 | 43.50 | -3.87 | 200 | 150 |
| 409.4190 | 10.39 | peak | 19.09 | 29.48 | 46.00 | -16.52 | 120 | 150 |
| 984.5691 | 7.25 | peak | 29.02 | 36.27 | 54.00 | -17.73 | 270 | 150 |

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Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4824.0000 | 45.89 | --- | -4.94 | 40.95 | --- | 74.00 | 54.00 | -33.05 | 100 | 150 |
| 7236.0000 | 48.47 | --- | -2.37 | 46.10 | --- | 74.00 | 54.00 | -27.90 | 170 | 150 |
| 9646.7940 | 32.99 | --- | 12.84 | 45.83 | --- | 74.00 | 54.00 | -28.17 | 220 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 26.36 | peak | 15.11 | 41.47 | 43.50 | -2.03 | 210 | 150 |
| 409.4190 | 9.25 | peak | 19.09 | 28.34 | 46.00 | -17.66 | 230 | 150 |
| 992.9860 | 7.48 | peak | 29.13 | 36.61 | 54.00 | -17.39 | 210 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4824.0000 | 45.71 | --- | -4.94 | 40.77 | --- | 74.00 | 54.00 | -33.23 | 210 | 150 |
| 7246.4930 | 50.44 | --- | -2.43 | 48.01 | --- | 74.00 | 54.00 | -25.99 | 260 | 150 |
| 9646.7940 | 34.93 | --- | 12.84 | 47.77 | --- | 74.00 | 54.00 | -26.23 | 170 | 150 |

Mode: 802.11g CH6
Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 25.28 | peak | 15.11 | 40.39 | 43.50 | -3.11 | 130 | 150 |
| 408.0161 | 9.90 | peak | 19.05 | 28.95 | 46.00 | -17.05 | 130 | 150 |
| 988.7776 | 7.74 | peak | 29.07 | 36.81 | 54.00 | -17.19 | 240 | 150 |

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4874.0000 | 46.80 | --- | -4.86 | 41.94 | --- | 74.00 | 54.00 | -32.06 | 140 | 150 |
| 7311.0000 | 48.36 | --- | -2.76 | 45.60 | --- | 74.00 | 54.00 | -28.40 | 320 | 150 |
| 9751.5030 | 33.11 | --- | 12.81 | 45.92 | --- | 74.00 | 54.00 | -28.08 | 230 | 150 |

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Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 21.05 | peak | 15.11 | 36.16 | 43.50 | -7.34 | 190 | 150 |
| 406.6133 | 8.66 | peak | 19.01 | 27.67 | 46.00 | -18.33 | 230 | 150 |
| 987.3748 | 7.38 | peak | 29.06 | 36.44 | 54.00 | -17.56 | 100 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4874.0000 | 46.32 | --- | -4.86 | 41.46 | --- | 74.00 | 54.00 | -32.54 | 240 | 150 |
| 7318.6370 | 50.62 | --- | -2.79 | 47.83 | --- | 74.00 | 54.00 | -26.17 | 140 | 150 |
| 9751.5030 | 33.34 | --- | 12.81 | 46.15 | --- | 74.00 | 54.00 | -27.85 | 100 | 150 |

Mode: 802.11g CH11

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 24.87 | peak | 15.11 | 39.98 | 43.50 | -3.52 | 100 | 150 |
| 409.4190 | 9.99 | peak | 19.09 | 29.08 | 46.00 | -16.92 | 100 | 150 |
| 984.5691 | 7.35 | peak | 29.02 | 36.37 | 54.00 | -17.63 | 60 | 150 |

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4924.0000 | 45.71 | --- | -4.89 | 40.82 | --- | 74.00 | 54.00 | -33.18 | 210 | 150 |
| 7386.0000 | 49.48 | --- | -3.09 | 46.39 | --- | 74.00 | 54.00 | -27.61 | 260 | 150 |
| 9848.0000 | 31.93 | --- | 13.02 | 44.95 | --- | 74.00 | 54.00 | -29.05 | 300 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 26.87 | peak | 15.11 | 41.98 | 43.50 | -1.52 | 230 | 150 |
| 405.2105 | 8.57 | peak | 18.97 | 27.54 | 46.00 | -18.46 | 170 | 150 |
| 987.3748 | 7.12 | peak | 29.06 | 36.18 | 54.00 | -17.82 | 210 | 150 |

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Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4924.0000 | 45.91 | --- | -4.89 | 41.02 | --- | 74.00 | 54.00 | -32.98 | 230 | 150 |
| 7382.7660 | 51.63 | --- | -3.07 | 48.56 | --- | 74.00 | 54.00 | -25.44 | 100 | 150 |
| 9846.6930 | 34.44 | --- | 13.02 | 47.46 | --- | 74.00 | 54.00 | -26.54 | 280 | 150 |

Mode: 802.11n CH1
Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 25.20 | peak | 15.11 | 40.31 | 43.50 | -3.19 | 200 | 150 |
| 408.0161 | 9.98 | peak | 19.05 | 29.03 | 46.00 | -16.97 | 130 | 150 |
| 970.5411 | 7.47 | peak | 28.84 | 36.31 | 54.00 | -17.69 | 100 | 150 |

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4824.0000 | 45.79 | --- | -4.94 | 40.85 | --- | 74.00 | 54.00 | -33.15 | 270 | 150 |
| 7236.0000 | 48.59 | --- | -2.37 | 46.22 | --- | 74.00 | 54.00 | -27.78 | 190 | 150 |
| 9646.7940 | 33.06 | --- | 12.84 | 45.90 | --- | 74.00 | 54.00 | -28.10 | 110 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 26.09 | peak | 15.11 | 41.20 | 43.50 | -2.30 | 190 | 150 |
| 402.4050 | 8.68 | peak | 18.90 | 27.58 | 46.00 | -18.42 | 210 | 150 |
| 985.9720 | 7.60 | peak | 29.04 | 36.64 | 54.00 | -17.36 | 280 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4824.0000 | 45.87 | --- | -4.94 | 40.93 | --- | 74.00 | 54.00 | -33.07 | 230 | 150 |
| 7236.0000 | 48.31 | --- | -2.37 | 45.94 | --- | 74.00 | 54.00 | -28.06 | 140 | 150 |
| 9648.0000 | 30.85 | --- | 12.83 | 43.68 | --- | 74.00 | 54.00 | -30.32 | 240 | 150 |

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Mode: 802.11n CH6
Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 24.89 | peak | 15.11 | 40.00 | 43.50 | -3.50 | 290 | 150 |
| 406.6133 | 9.26 | peak | 19.01 | 28.27 | 46.00 | -17.73 | 230 | 150 |
| 991.5832 | 7.53 | peak | 29.11 | 36.64 | 54.00 | -17.36 | 100 | 150 |

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4874.0000 | 45.63 | --- | -4.86 | 40.77 | --- | 74.00 | 54.00 | -33.23 | 100 | 150 |
| 7311.0000 | 47.93 | --- | -2.76 | 45.17 | --- | 74.00 | 54.00 | -28.83 | 230 | 150 |
| 9748.0000 | 30.16 | --- | 12.80 | 42.96 | --- | 74.00 | 54.00 | -31.04 | 130 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 21.32 | peak | 15.11 | 36.43 | 43.50 | -7.07 | 130 | 150 |
| 405.2105 | 7.98 | peak | 18.97 | 26.95 | 46.00 | -19.05 | 130 | 150 |
| 973.3467 | 7.15 | peak | 28.87 | 36.02 | 54.00 | -17.98 | 180 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Reading (dBuV) Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Result @3m (dBuV/m) Ave. | Limit @3m (dBuV/m) Peak | Limit @3m (dBuV/m) Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4889.7800 | 47.35 | --- | -4.84 | 42.51 | --- | 74.00 | 54.00 | -31.49 | 120 | 150 |
| 7310.6210 | 50.80 | --- | -2.76 | 48.04 | --- | 74.00 | 54.00 | -25.96 | 300 | 150 |
| 9748.0000 | 31.00 | --- | 12.80 | 43.80 | --- | 74.00 | 54.00 | -30.20 | 270 | 150 |

Mode: 802.11n CH11
Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 24.69 | peak | 15.11 | 39.80 | 43.50 | -3.70 | 280 | 150 |
| 403.8077 | 10.17 | peak | 18.93 | 29.10 | 46.00 | -16.90 | 290 | 150 |
| 983.1663 | 7.73 | peak | 29.00 | 36.73 | 54.00 | -17.27 | 240 | 150 |

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

Polarization: Horizontal

| Frequency (MHz) | Reading (dBuV) Peak | Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Ave. | Limit @3m (dBuV/m) Peak | Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4924.0000 | 46.09 | --- | -4.89 | 41.20 | --- | 74.00 | 54.00 | -32.80 | 100 | 150 |
| 7386.0000 | 49.66 | --- | -3.09 | 46.57 | --- | 74.00 | 54.00 | -27.43 | 130 | 150 |
| 9848.0000 | 30.20 | --- | 13.02 | 43.22 | --- | 74.00 | 54.00 | -30.78 | 170 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|
| 166.3528 | 26.08 | peak | 15.11 | 41.19 | 43.50 | -2.31 | 280 | 150 |
| 408.0161 | 9.19 | peak | 19.05 | 28.24 | 46.00 | -17.76 | 210 | 150 |
| 991.5832 | 7.48 | peak | 29.11 | 36.59 | 54.00 | -17.41 | 250 | 150 |

Polarization: Vertical

| Frequency (MHz) | Reading (dBuV) Peak | Ave. | Factor (dB) Corr. | Result @3m (dBuV/m) Peak | Ave. | Limit @3m (dBuV/m) Peak | Ave. | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4924.0000 | 45.47 | --- | -4.89 | 40.58 | --- | 74.00 | 54.00 | -33.42 | 130 | 150 |
| 7386.0000 | 49.21 | --- | -3.09 | 46.12 | --- | 74.00 | 54.00 | -27.88 | 280 | 150 |
| 9848.0000 | 30.66 | --- | 13.02 | 43.68 | --- | 74.00 | 54.00 | -30.32 | 100 | 150 |

**Note**
1. **Correction Factor = Antenna factor + Cable loss - Preamplifier**
2. **The formula of measured value as: Test Result = Reading + Correction Factor**
3. **Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average**
4. **All not in the table noted test results are more than 20 dB below the relevant limits.**
5. **See the attached diagram as appendix.**

**TEST RESULT (Transmitter):** The unit DOES meet the FCC requirements.

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028, ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 044

## 3.6 Radiated Emission on the band edge

According to FCC rules part 15 subpart C §15.247(c) in any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required.

In addition radiated emission which fall in the restricted bands, as defined in section 15.205(a), must also with the radiated emission limits.

Mode 802.11b

| Test conditions | | Attenuation at or outside band-edges | |
|---|---|---|---|
| | | Lower Band-edge | Upper Band-edge |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | 45.39 dB | 53.52 dB |

Mode 802.11g

| Test conditions | | Attenuation at or outside band-edges | |
|---|---|---|---|
| | | Lower Band-edge | Upper Band-edge |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | 41.21 dB | 44.12 dB |

Mode 802.11n

| Test conditions | | Attenuation at or outside band-edges | |
|---|---|---|---|
| | | Lower Band-edge | Upper Band-edge |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | 37.77 dB | 43.52 dB |

Limit:

| Frequency Range / MHz | Limit |
|---|---|
| 902 –928<br>2400 – 2483.5<br>5725 - 5850 | - 20 dB |

Test equipment used: ETSTW-RE 055
Explanation: Please see attached diagram as appendix.

## 3.7 Minimum 6 dB Bandwidth

The analyzer ResBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK reading was taken, two markers were set 6 dB below the maximum level on the right and the left side of the emission.
The 6 dB bandwidth is the frequency difference between the two markers.

Mode 802.11b

| Test conditions | | 6 dB Bandwidth | | |
|---|---|---|---|---|
| | | Channel 1 | Channel 6 | Channel 11 |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | 9.647435897MHz | 9.679487179MHz | 9.807692308 MHz |

Mode 802.11g

| Test conditions | | 6 dB Bandwidth | | |
|---|---|---|---|---|
| | | Channel 1 | Channel 6 | Channel 11 |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | 16.410256410MHz | 16.410256410MHz | 16.378205128MHz |

Mode 802.11n

| Test conditions | | 6 dB Bandwidth | | |
|---|---|---|---|---|
| | | Channel 1 | Channel 6 | Channel 11 |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | 17.660256410MHz | 17.596153846 MHz | 17.660256410 MHz |

**Limits:**

| Frequency Range MHz | **Limits** |
|---|---|
| 902-928 | min 500 kHz |
| 2400-2483.5 | min 500 kHz |
| 5725-5850 | min 500 kHz |

Test equipment used: ETSTW-RE 055

Explanation: see attached diagrams in Appendix.

## 3.8 Peak Power Spectral Density

Peak Power Spectral density is a measured at low, middle and high channel.
The peak output power is measured with a measurement bandwidth of 10 MHz and displayed on diagram together with Peak Power Spectral Density result which was measured with a bandwidth of 3 kHz, appreciate frequency span and sweep time.

Mode 802.11b

| Test conditions | | Peak Power Spectral Density (3 kHz) | | |
|---|---|---|---|---|
| | | Channel 1 [dBm] | Channel 6 [dBm] | Channel 11 [dBm] |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | 5.84 | 5.38 | 4.57 |

Mode 802.11g

| Test conditions | | Peak Power Spectral Density (3 kHz) | | |
|---|---|---|---|---|
| | | Channel 1 [dBm] | Channel 6 [dBm] | Channel 11 [dBm] |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | -14.48 | -13.94 | -12.05 |

Mode 802.11n

| Test conditions | | Peak Power Spectral Density (3 kHz) | | |
|---|---|---|---|---|
| | | Channel 1 [dBm] | Channel 6 [dBm] | Channel 11 [dBm] |
| $T_{nom}$= 23°C | $V_{nom}$ = 120 V | -15.08 | -13.82 | -14.38 |

**Limits:**

| Frequency Range MHz | dBm |
|---|---|
| 902-928 | 8 |
| 2400-2483.5 | 8 |
| 5725-5850 | 8 |

Test equipment used: ETSTW-RE 055

Explanation: see attached diagrams in Appendix.

## 3.9 Radiated Emission from Digital Part

FCC Rule: 15.109

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency of Emission (MHz) | Field Strength (microvolts/meter) | Field Strength (dBmicrovolts/meter) |
|---|---|---|
| 30 – 88 | 100 | 40.0 |
| 88 – 216 | 150 | 43.5 |
| 216 – 960 | 200 | 46.0 |
| Above 960 | 500 | 54.0 |

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028, ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 044

Explanation: This test item is not required.

## 3.9 Power Line Conducted Emission

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 line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

| Frequency | Level (dBµV) | |
|---|---|---|
| | quasi-peak | average |
| 150 kHz | lower limit line | Lower limit line |

Model: MK-100 Date: 2010/11/17
Mode: Temperature: 24 °C Engineer:
Polarization: N Humidity: 60 % Robert

| Frequency (MHz) | Reading (dBuV) QP | Reading (dBuV) Ave. | Factor (dB) Corr. | Result (dBuV) QP | Result (dBuV) Ave. | Limit (dBuV) QP | Limit (dBuV) Ave. | Margin (dB) |
|---|---|---|---|---|---|---|---|---|
| 0.1501 | 48.33 | 20.19 | 10.74 | 59.07 | 30.93 | 65.99 | 55.99 | -6.92 |
| 0.1791 | 46.66 | 29.94 | 10.76 | 57.42 | 40.70 | 64.53 | 54.53 | -7.11 |
| 0.2220 | 43.82 | 26.55 | 10.75 | 54.57 | 37.30 | 62.74 | 52.74 | -8.17 |
| 0.3632 | 35.71 | 11.70 | 10.70 | 46.41 | 22.40 | 58.65 | 48.65 | -12.24 |
| 0.5400 | 30.90 | 13.41 | 10.65 | 41.55 | 24.06 | 56.00 | 46.00 | -14.45 |
| 1.0074 | 28.84 | 13.57 | 10.38 | 39.22 | 23.95 | 56.00 | 46.00 | -16.78 |

Polarization: L1

| Frequency (MHz) | Reading (dBuV) QP | Reading (dBuV) Ave. | Factor (dB) Corr. | Result (dBuV) QP | Result (dBuV) Ave. | Limit (dBuV) QP | Limit (dBuV) Ave. | Margin (dB) |
|---|---|---|---|---|---|---|---|---|
| 0.1511 | 48.29 | 19.73 | 10.75 | 59.04 | 30.48 | 65.94 | 55.94 | -6.90 |
| 0.1833 | 46.22 | 25.61 | 10.77 | 56.99 | 36.38 | 64.33 | 54.33 | -7.34 |
| 0.2311 | 43.66 | 31.09 | 10.75 | 54.41 | 41.84 | 62.41 | 52.41 | -8.00 |
| 0.2710 | 40.60 | 24.12 | 10.73 | 51.33 | 34.85 | 61.09 | 51.09 | -9.76 |
| 0.4018 | 38.44 | 31.42 | 10.63 | 49.07 | 42.05 | 57.82 | 47.82 | -5.77 |
| 1.4500 | 39.10 | 30.29 | 10.26 | 49.36 | 40.55 | 56.00 | 46.00 | -5.45 |

**Note: 1. The formula of measured value as: Test Result = Reading + Correction Factor**
**2. The Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss**
**3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average**
**4. All not in the table noted test results are more than 20 dB below the relevant limits.**

**Limits:**

| Frequency of Emission (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi Peak | Average |
| 0.15-0.5 | 66 to 56 | 56 to 46 |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |

Test equipment used: ETSTW-CE 001, ETSTW-CE 004, ETSTW-CE 006

Explanation: see attached diagrams in Appendix.

# Appendix

## 1. Measurement diagrams

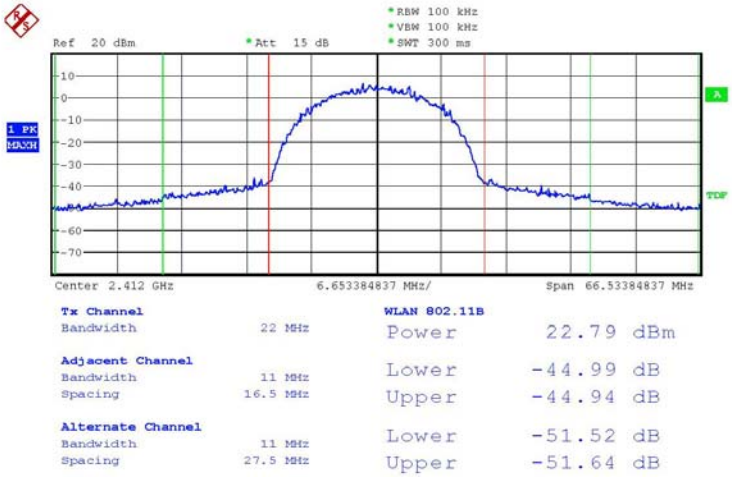
1. Peak Output Power
2. Spurious Emissions radiated
3. Band Edge Measurement
4. Minimum 6dB Bandwidth
5. Peak Power Spectral Density
6. Power Line Conducted Emission

## 2. Photos

1. External Photos
2. Internal Photos
3. Set Up Photo of Radiated Emission
4. Set Up Photo of Conducted Emission

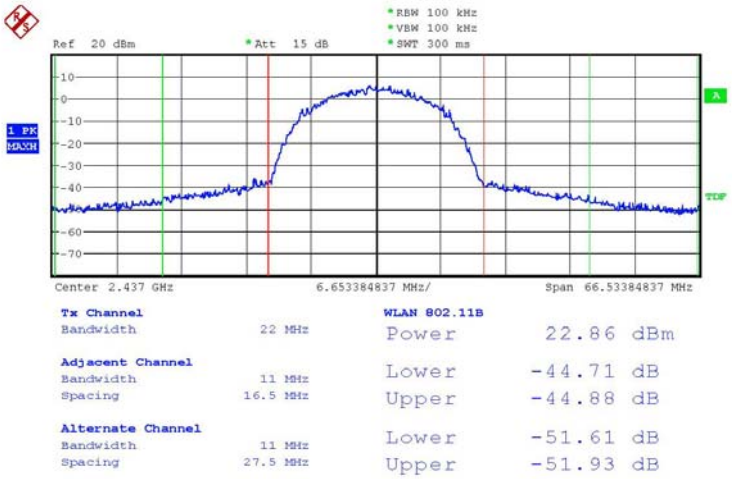
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

Peak Output Power
802.11b
Channel 1




MAX OUTPUT POWER 802.11b CH1
Date: 16.NOV.2010 15:48:55

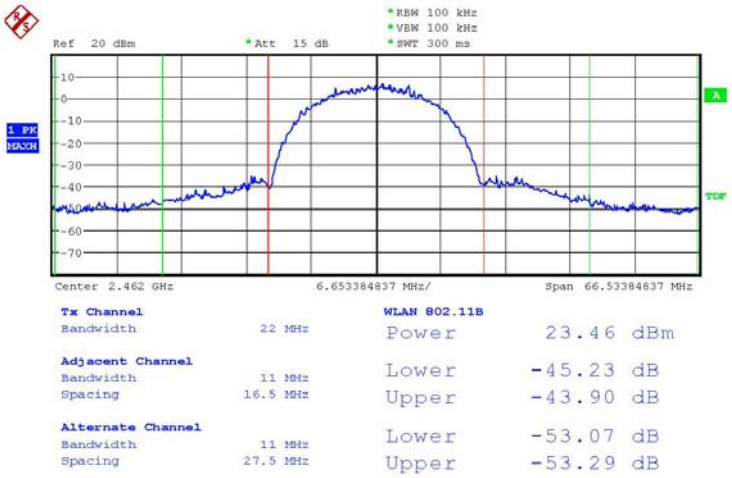
802.11b
Channel 6




MAX OUTPUT POWER 802.11b CH6
Date: 16.NOV.2010 15:49:42

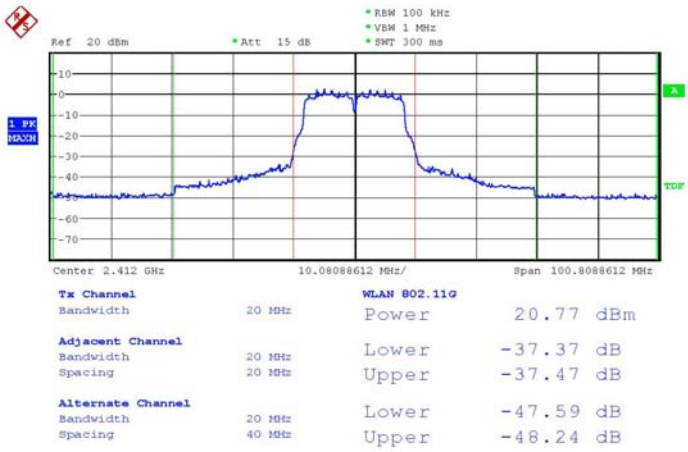
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

802.11b
Channel 11



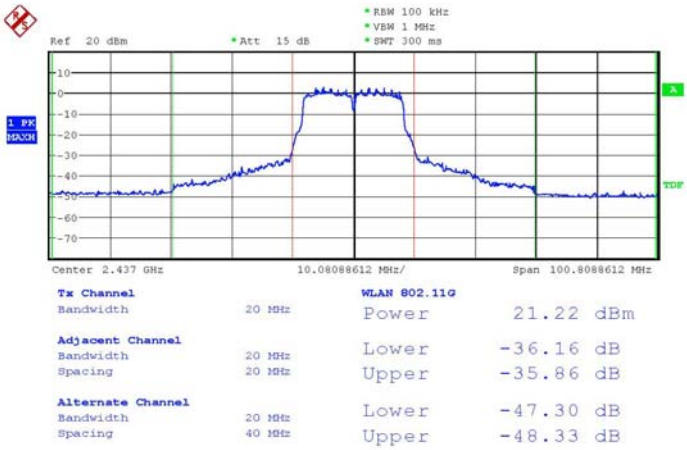

MAX OUTPUT POWER 802.11b CH11
Date: 16.NOV.2010 15:50:23

802.11g
Channel 1



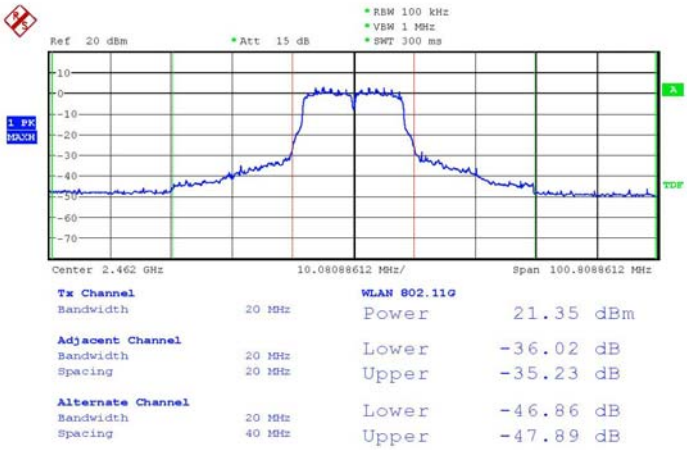

MAX OUTPUT POWER 802.11g CH1
Date: 16.NOV.2010 15:52:18

## Channel 6




MAX OUTPUT POWER 802.11g CH6
Date: 16.NOV.2010 15:51:47

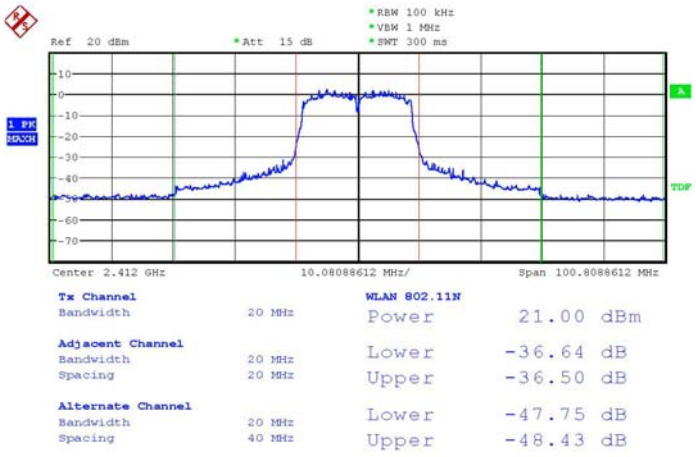
## Channel 11




MAX OUTPUT POWER 802.11g CH11
Date: 16.NOV.2010 15:51:17

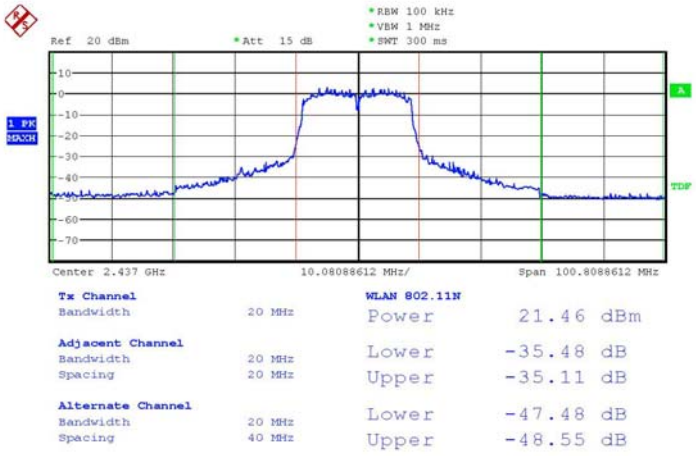
802.11n

Channel 1




MAX OUTPUT POWER 802.11n CH1
Date: 16.NOV.2010 15:52:48

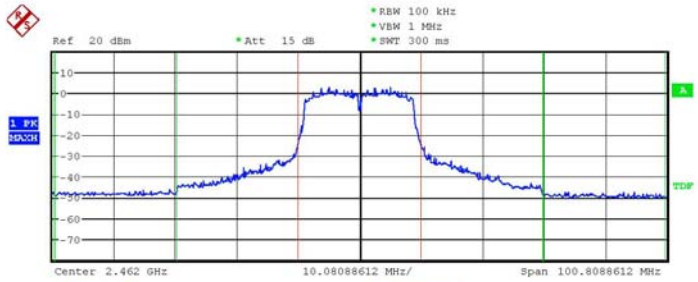
Channel 6




MAX OUTPUT POWER 802.11n CH6
Date: 16.NOV.2010 15:53:17

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

## Channel 11

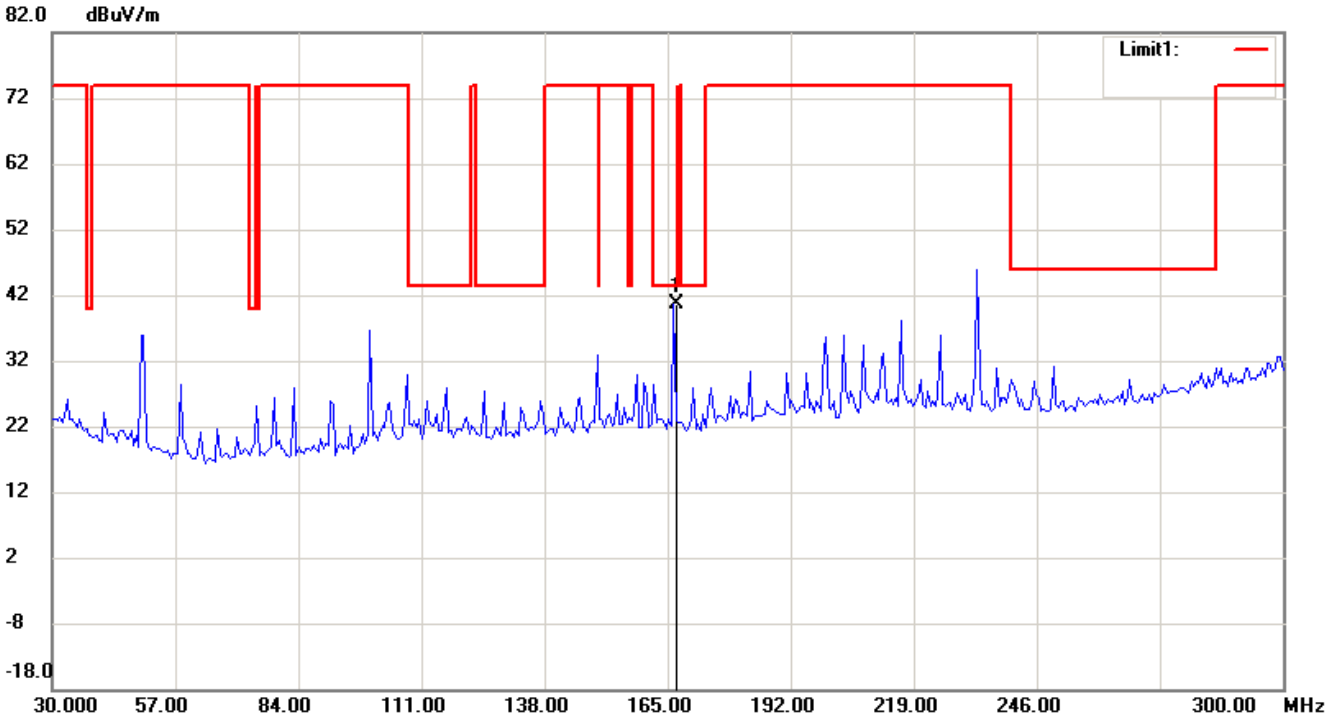


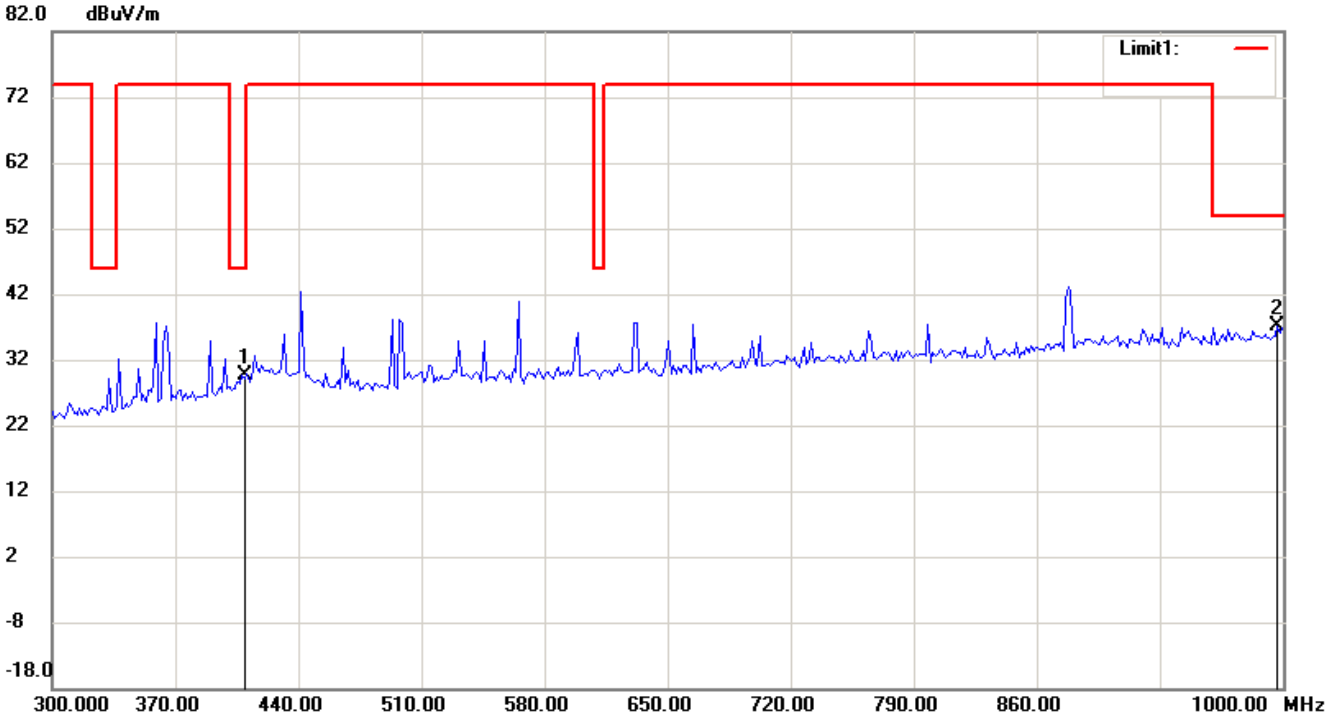

| | | | |
|---|---|---|---|
| **Tx Channel** | | **WLAN 802.11N** | |
| Bandwidth | 20 MHz | Power | 21.50 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 20 MHz | Lower | -35.43 dB |
| Spacing | 20 MHz | Upper | -34.59 dB |
| **Alternate Channel** | | | |
| Bandwidth | 20 MHz | Lower | -47.21 dB |
| Spacing | 40 MHz | Upper | -48.15 dB |

MAX OUTPUT POWER 802.11n CH11
Date: 16.NOV.2010 15:53:50

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

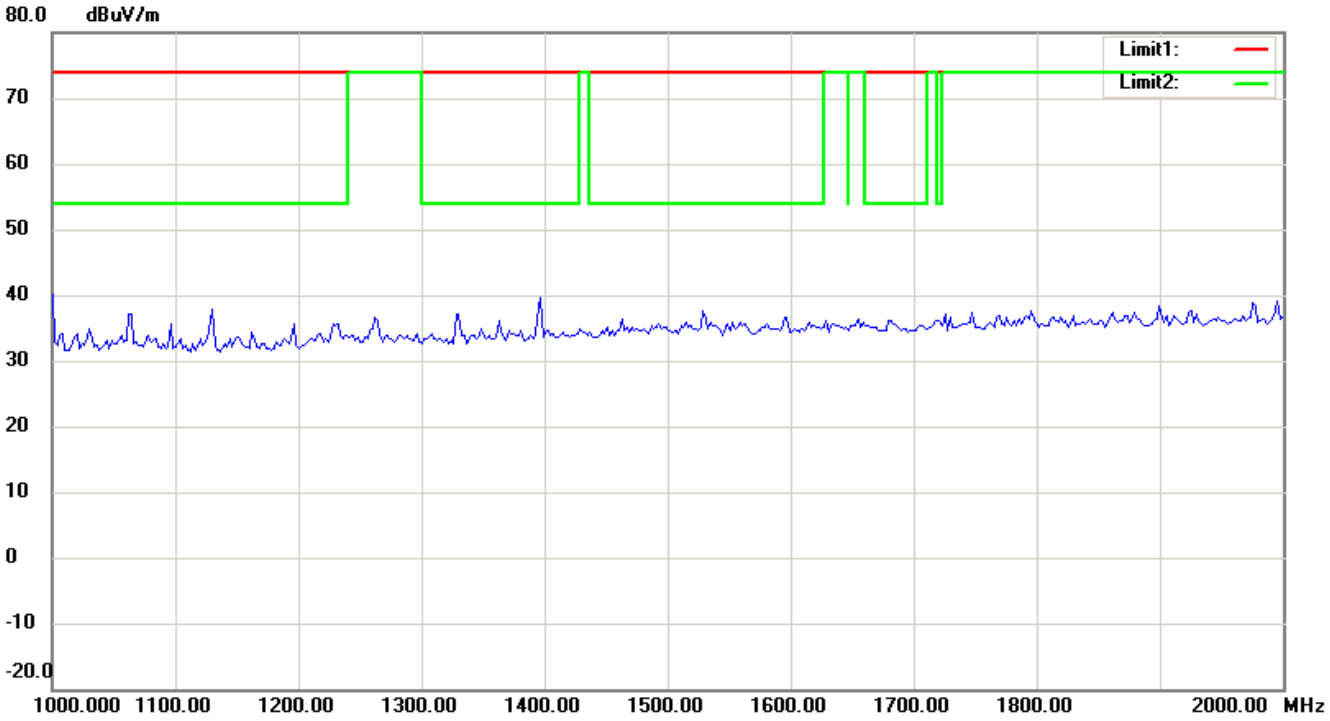
Spurious Emissions radiated
802.11b
Channel 1
Antenna Polarization H

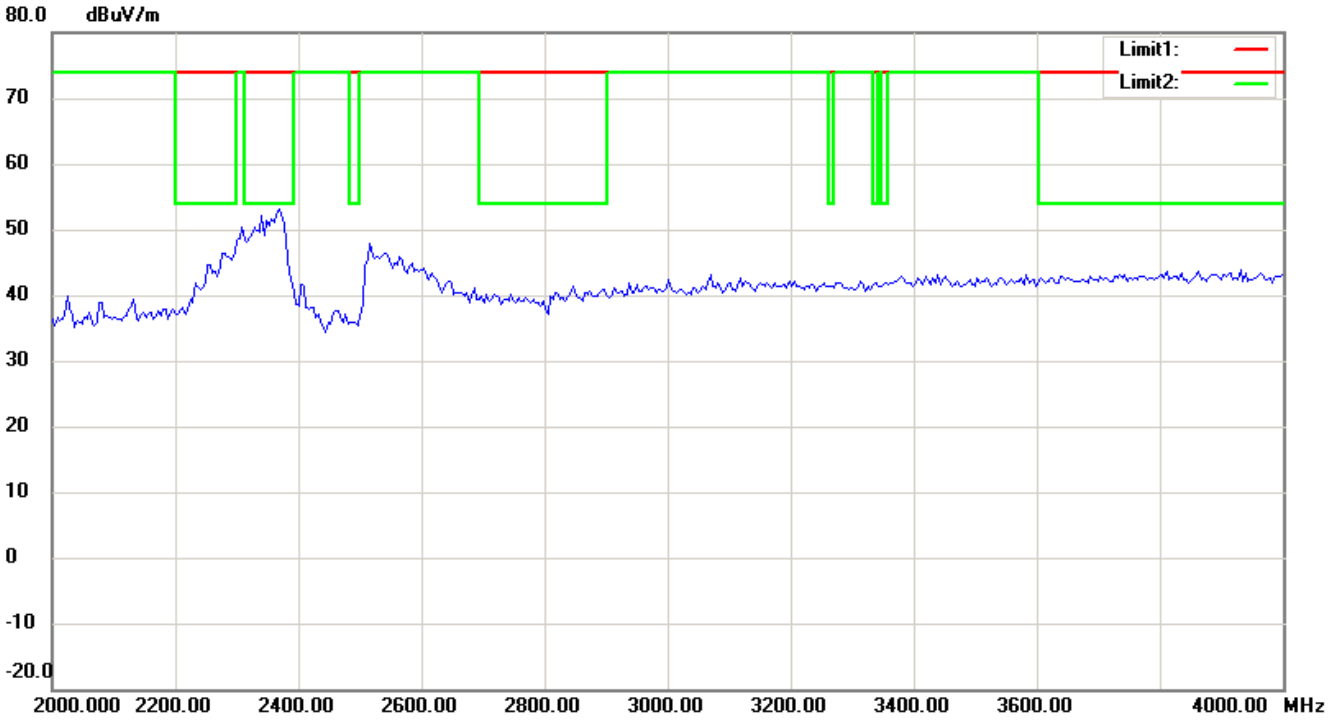



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**
**1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
**3. For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

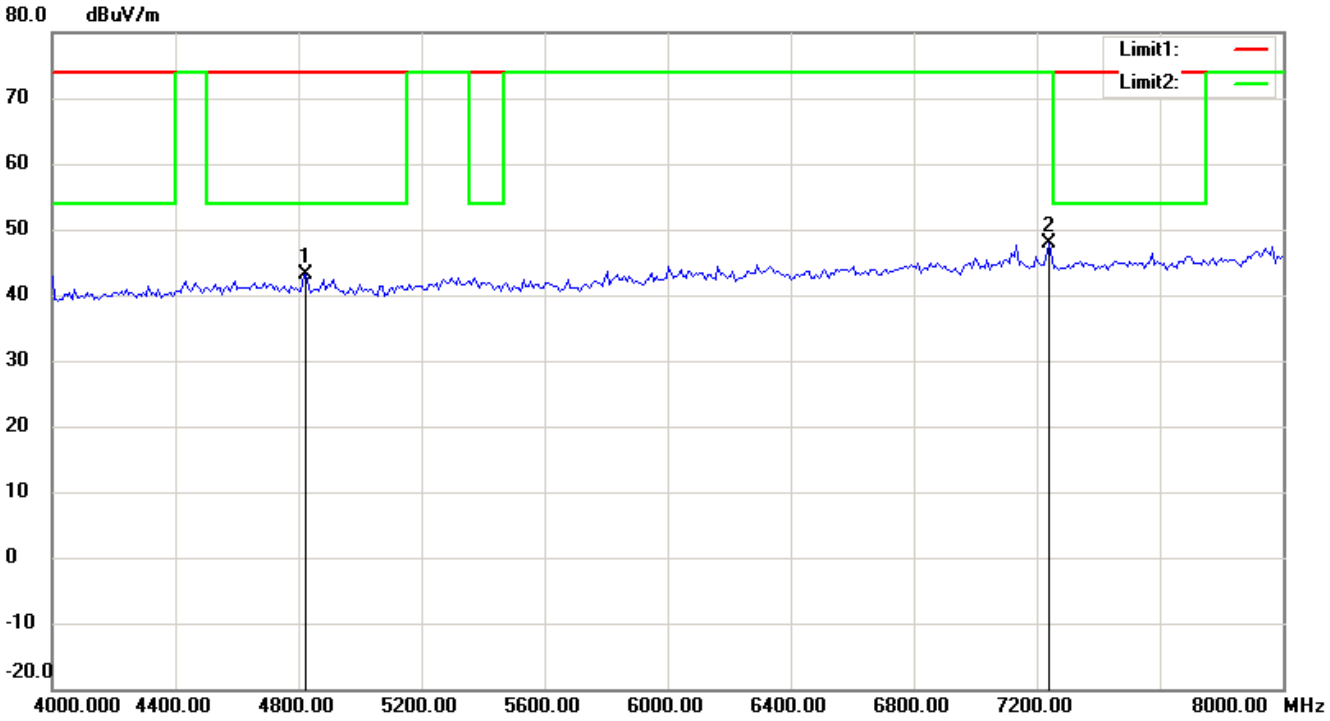


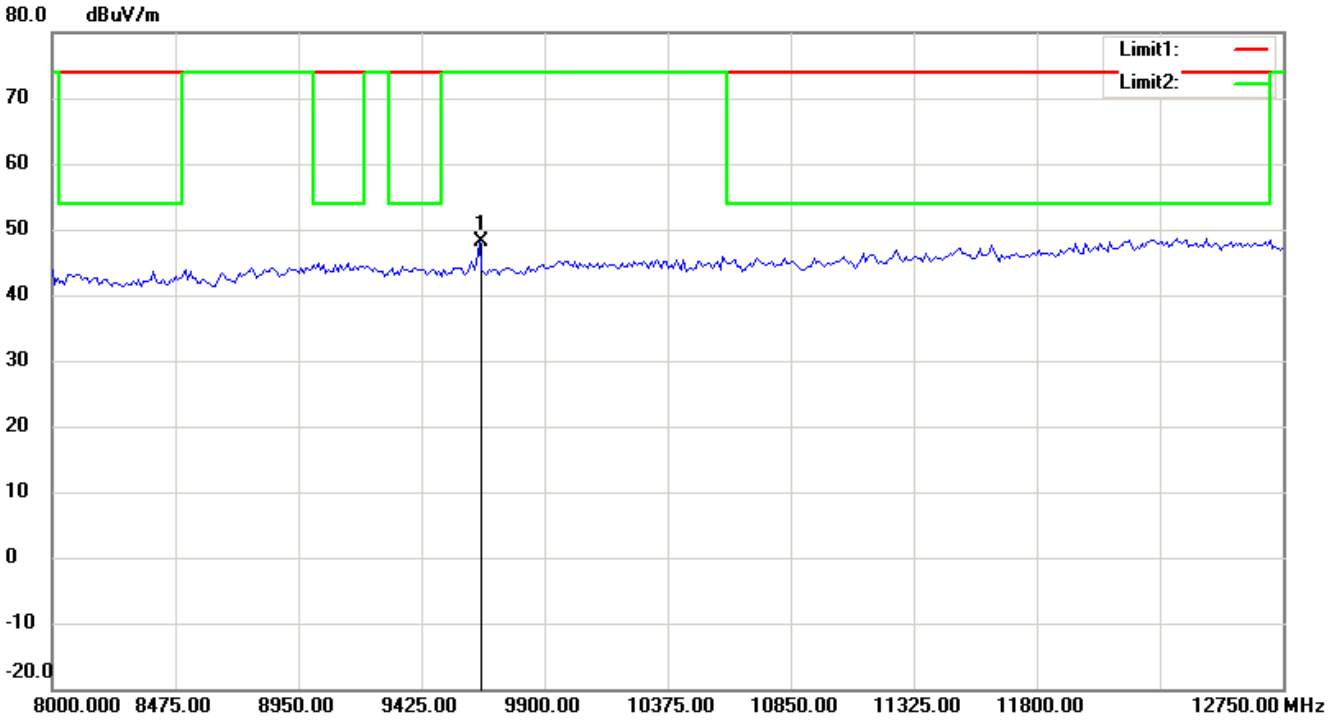




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

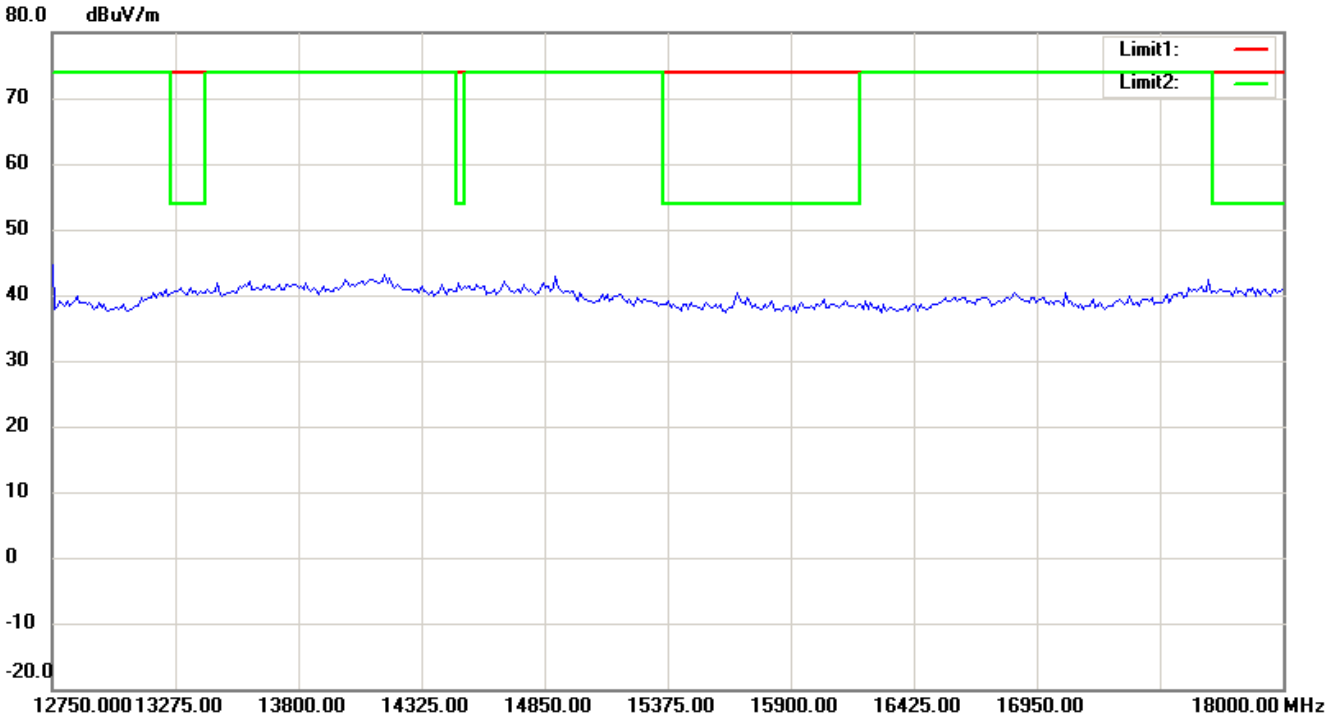


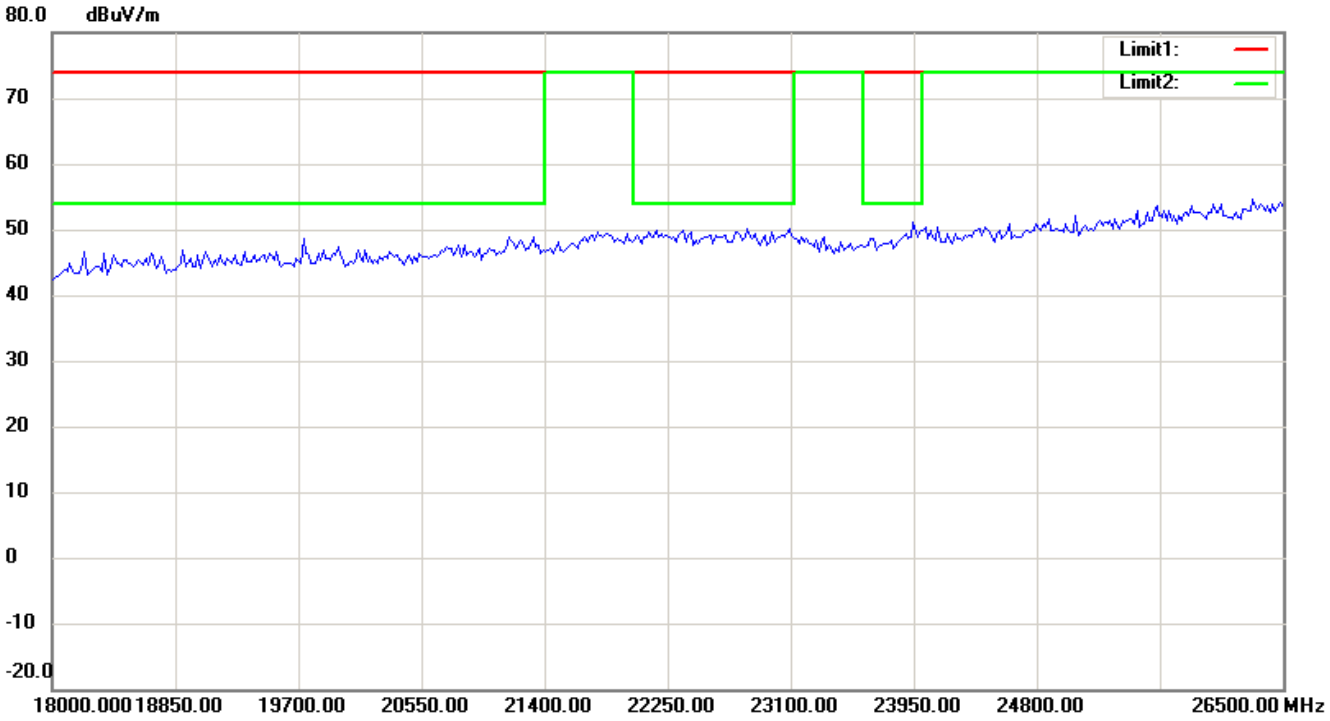




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



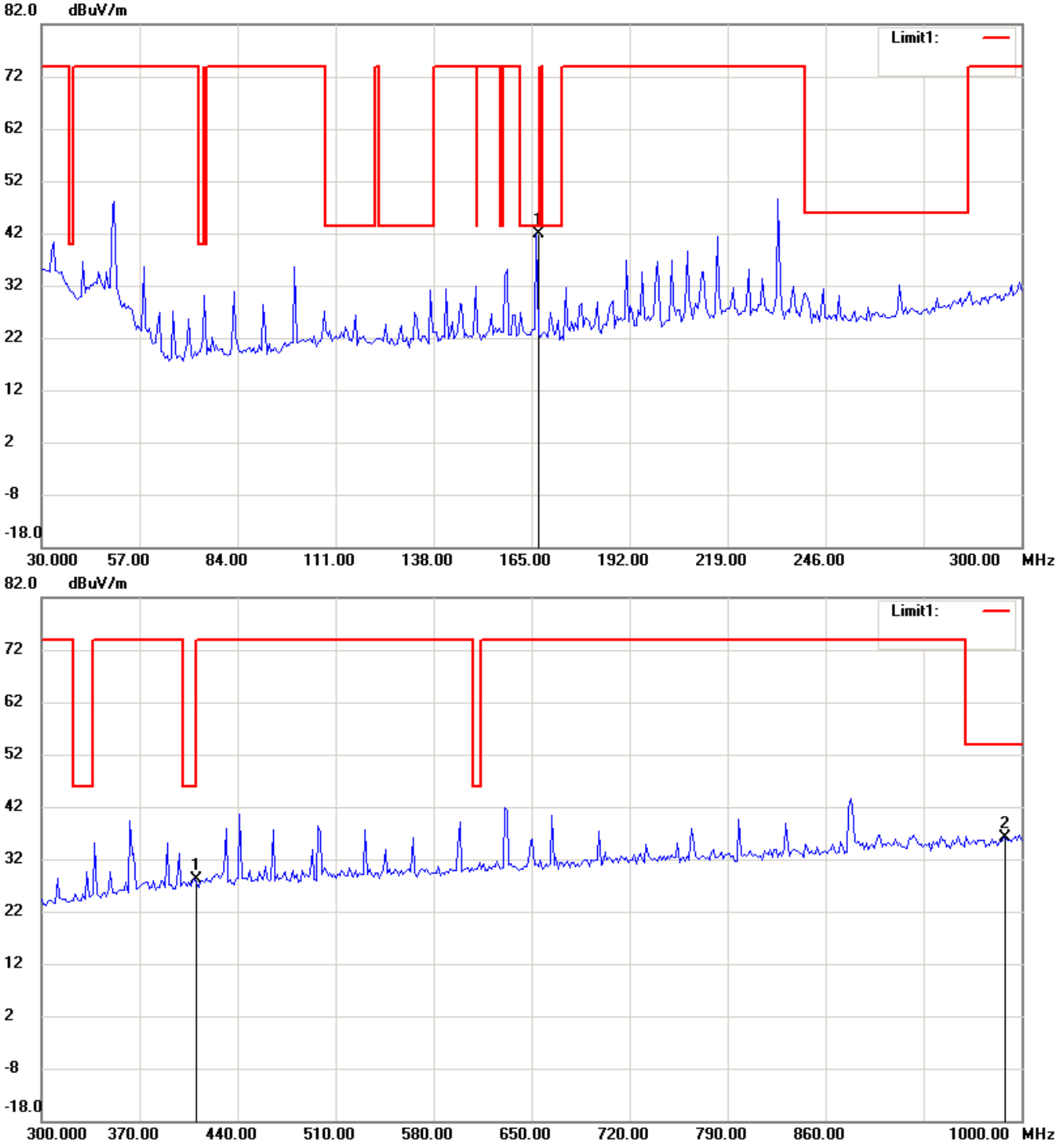




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

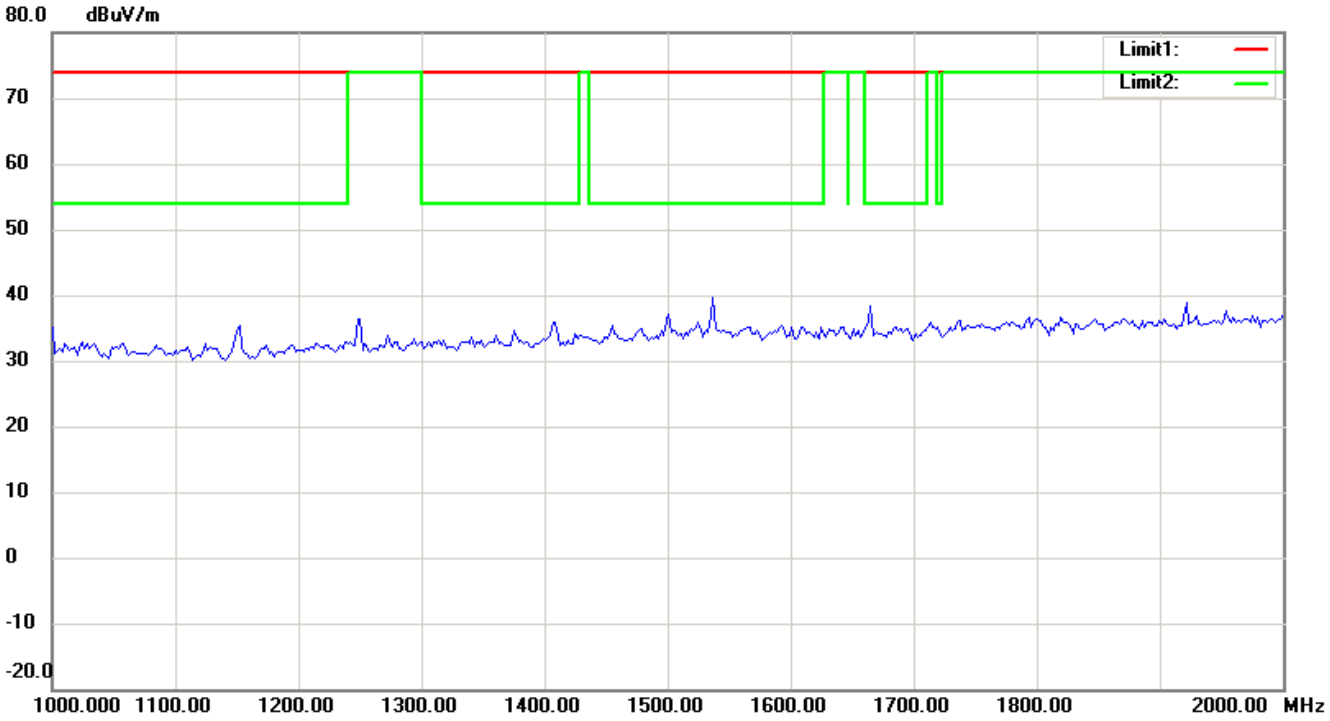
## Antenna Polarization V

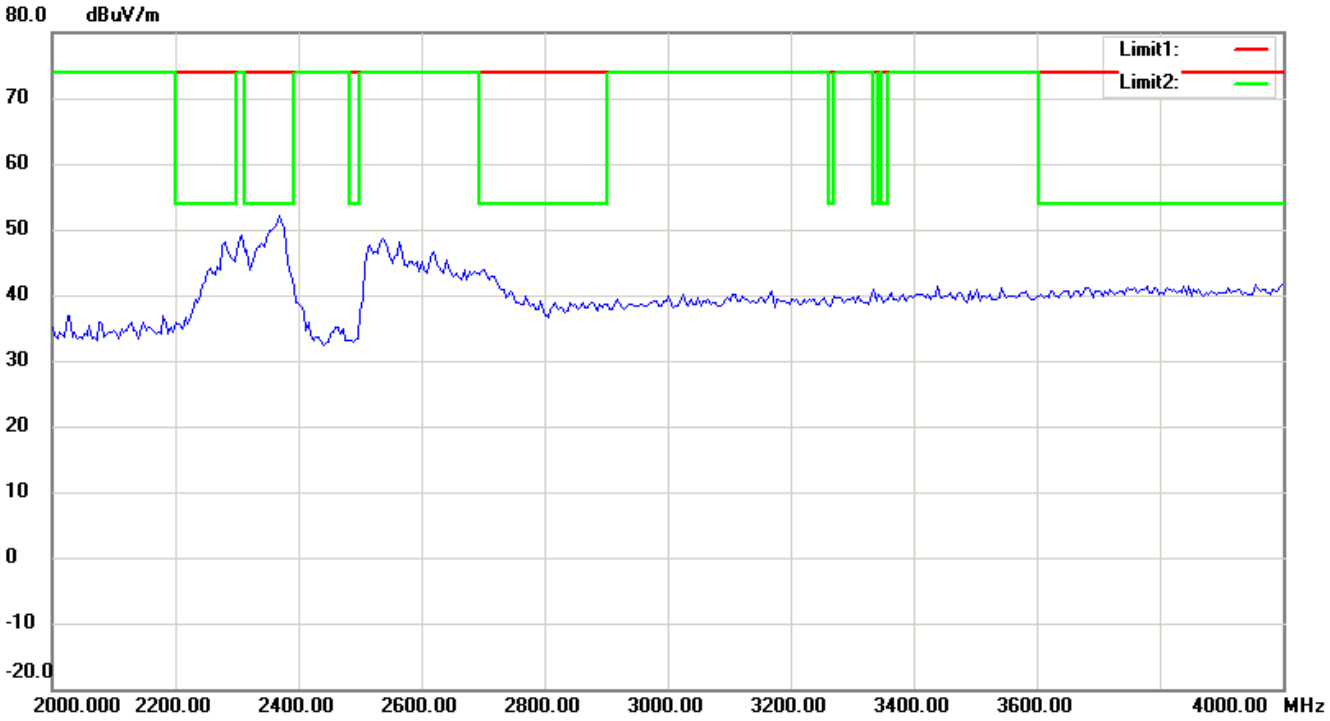



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

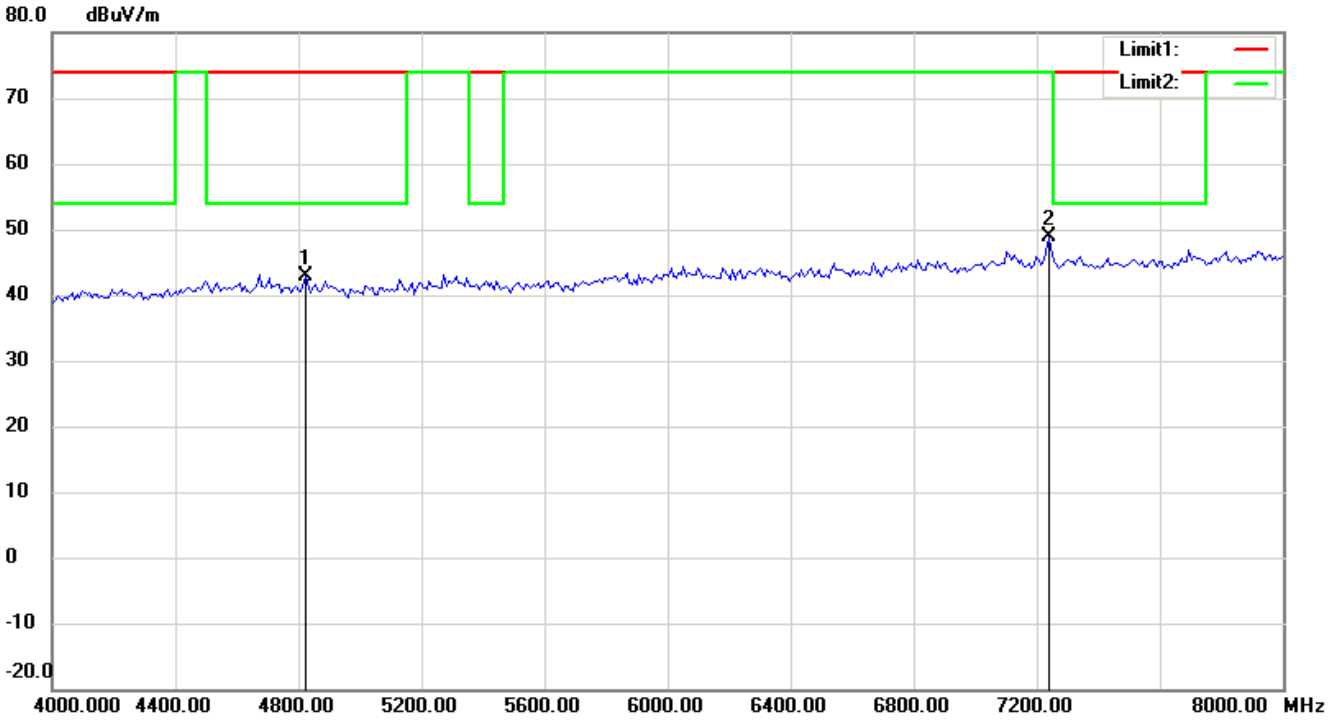


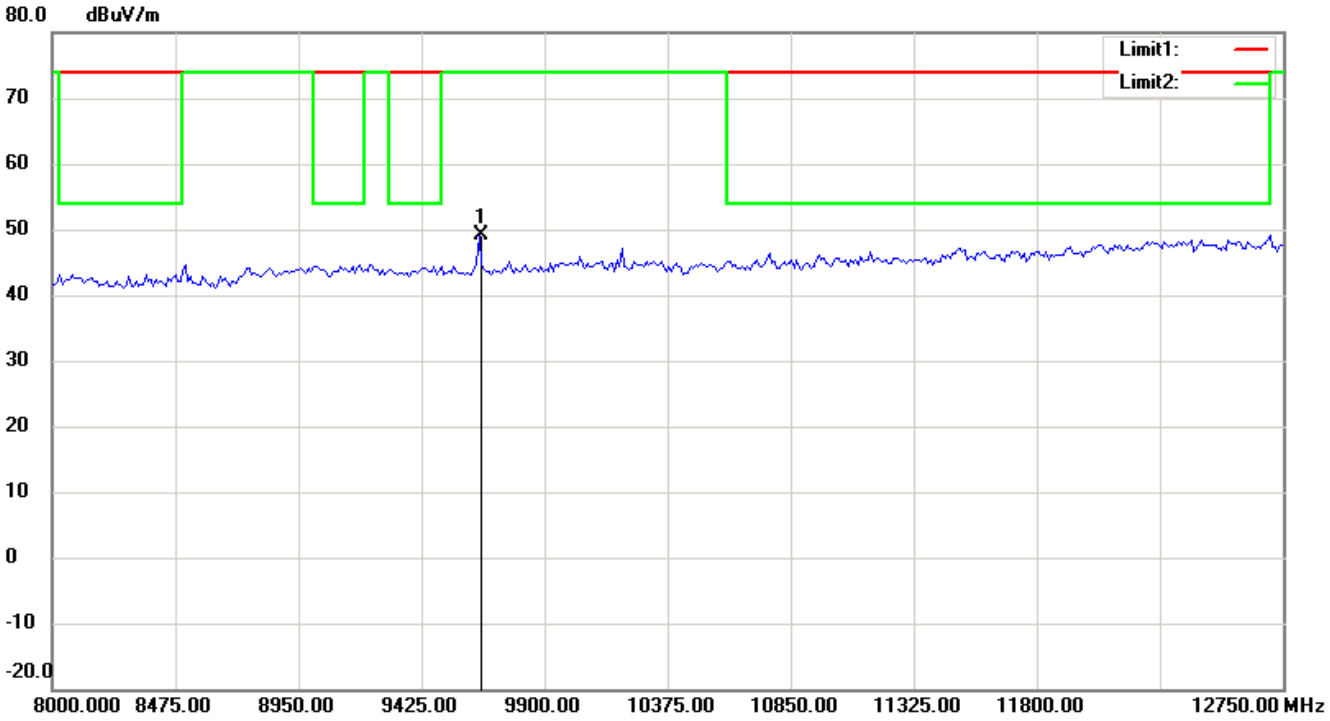




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

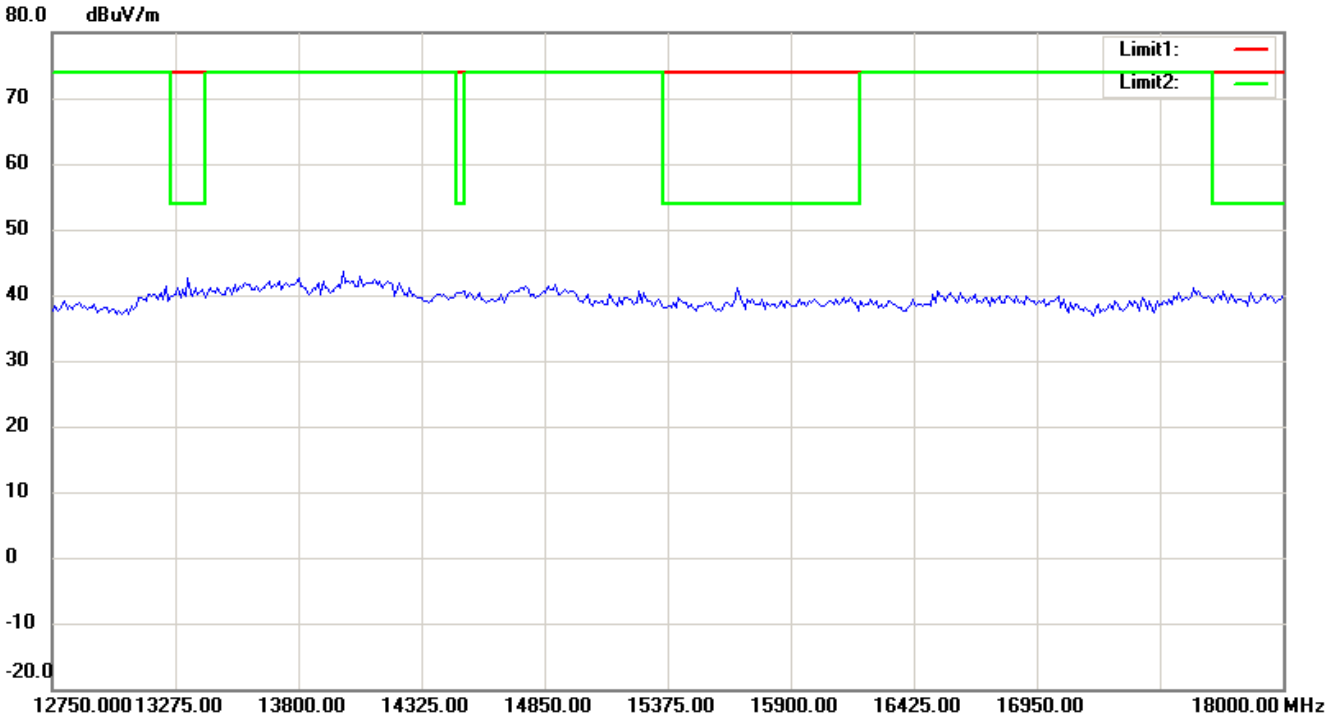


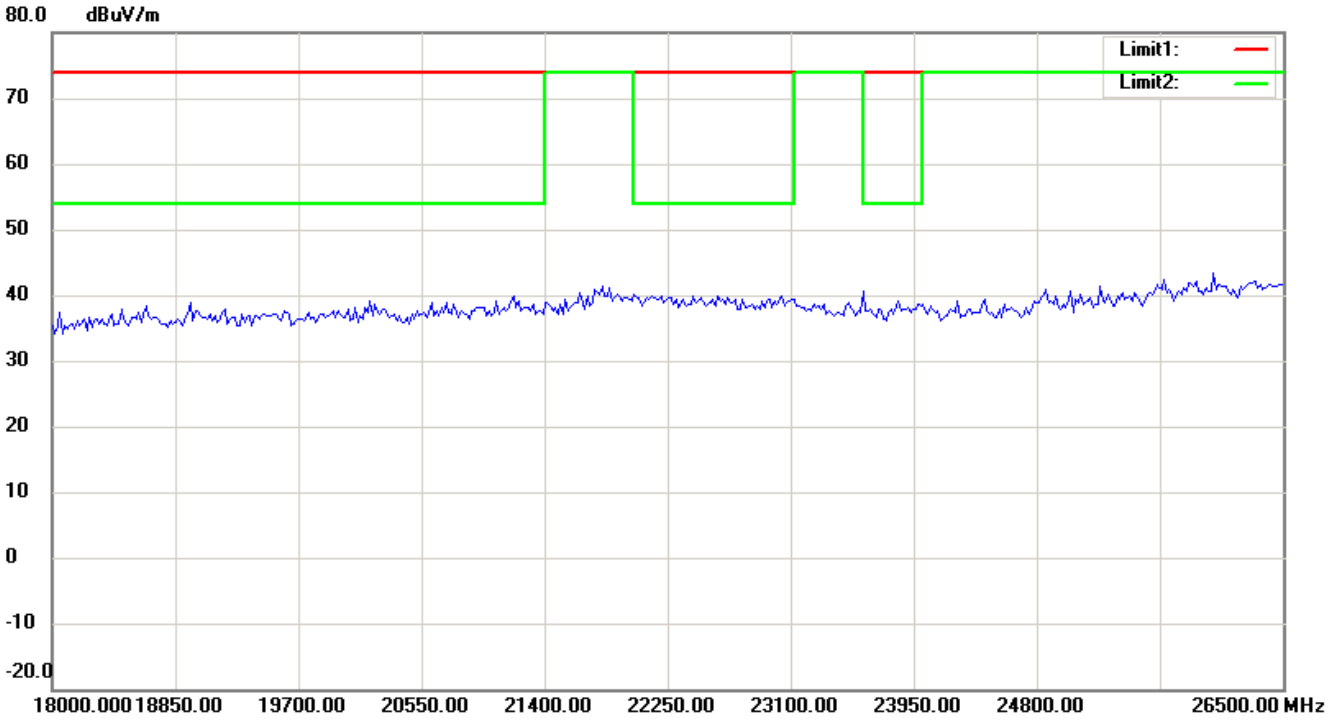




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



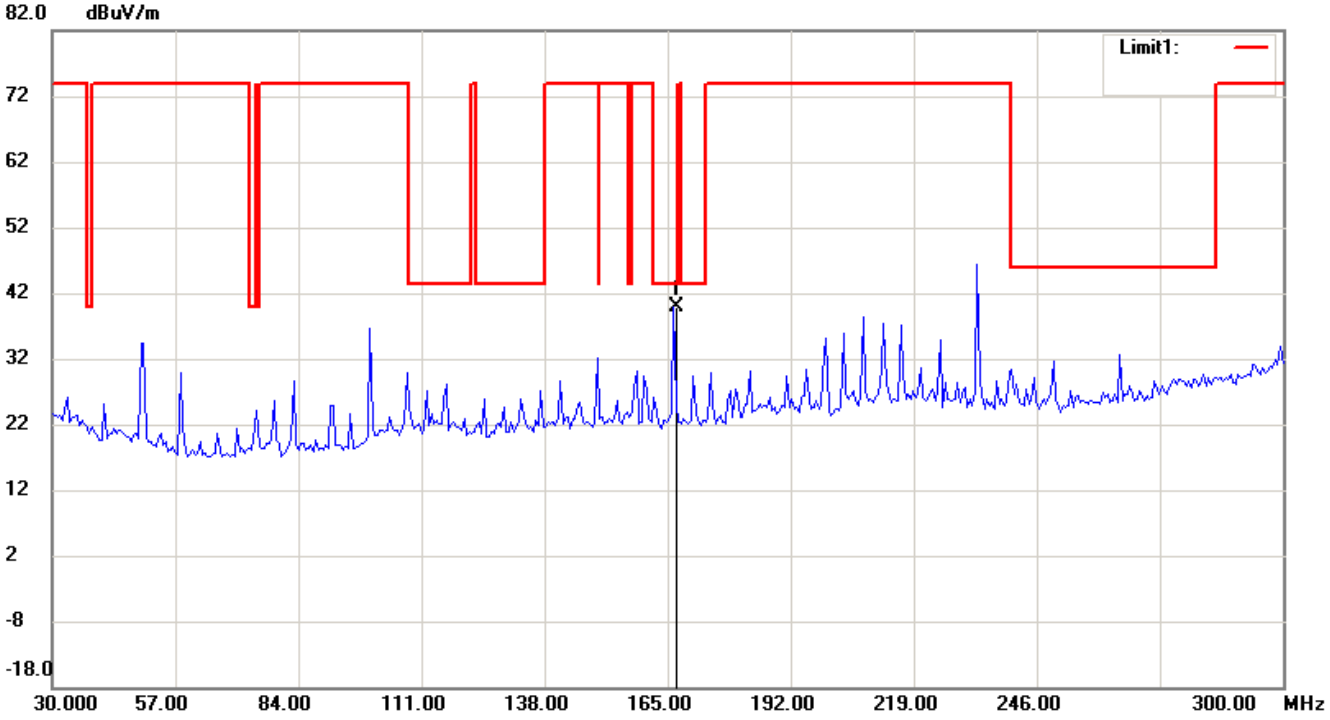



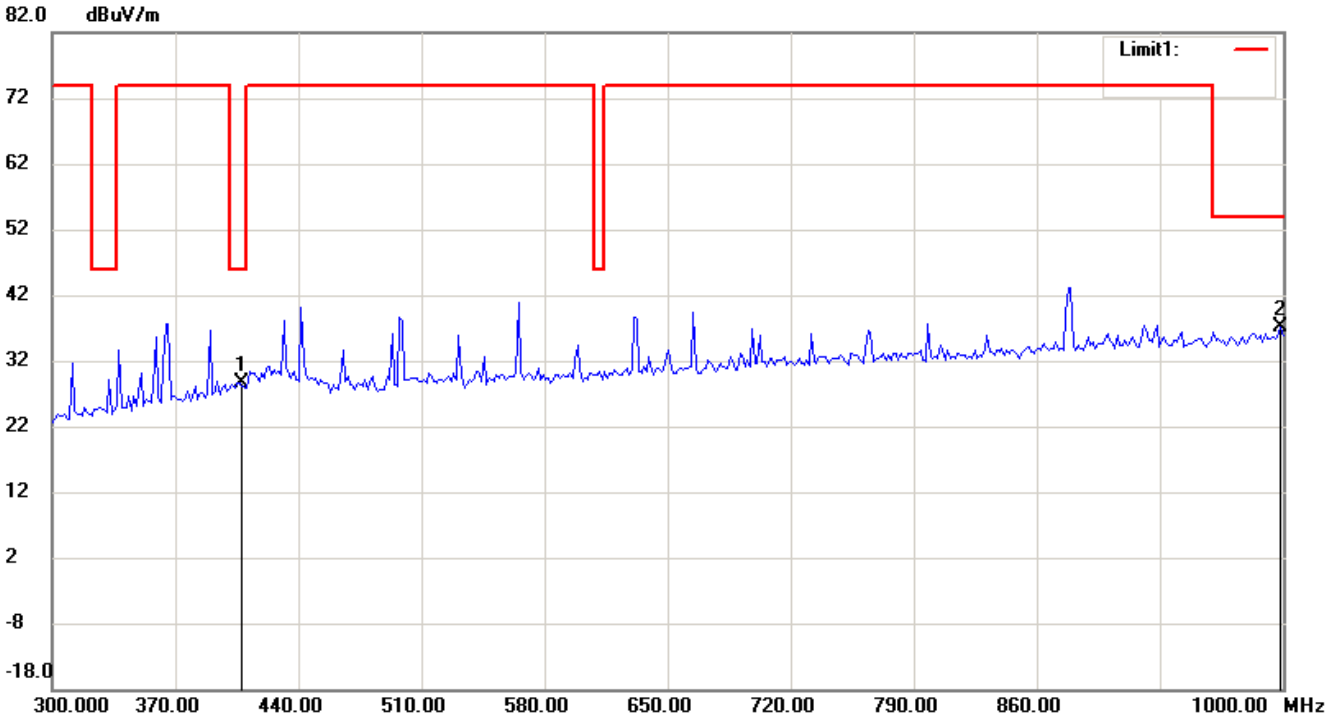

**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

Channel 6
Antenna Polarization H

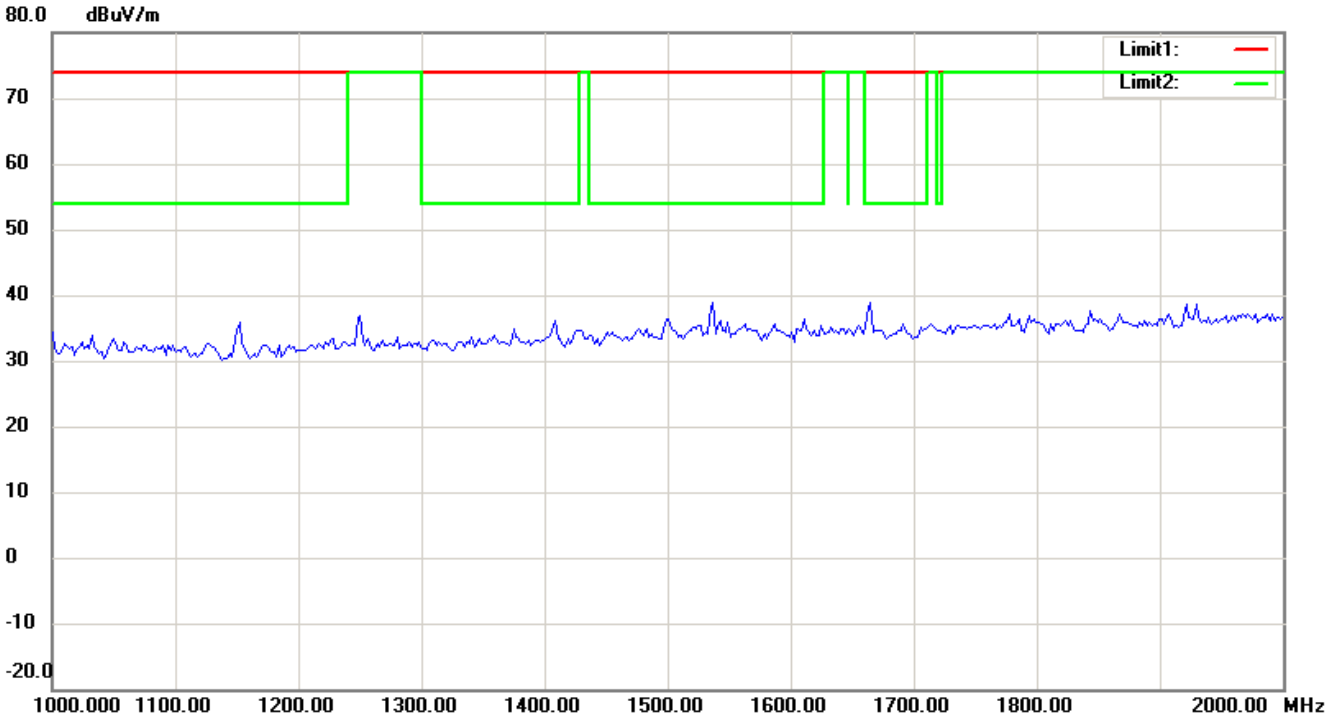


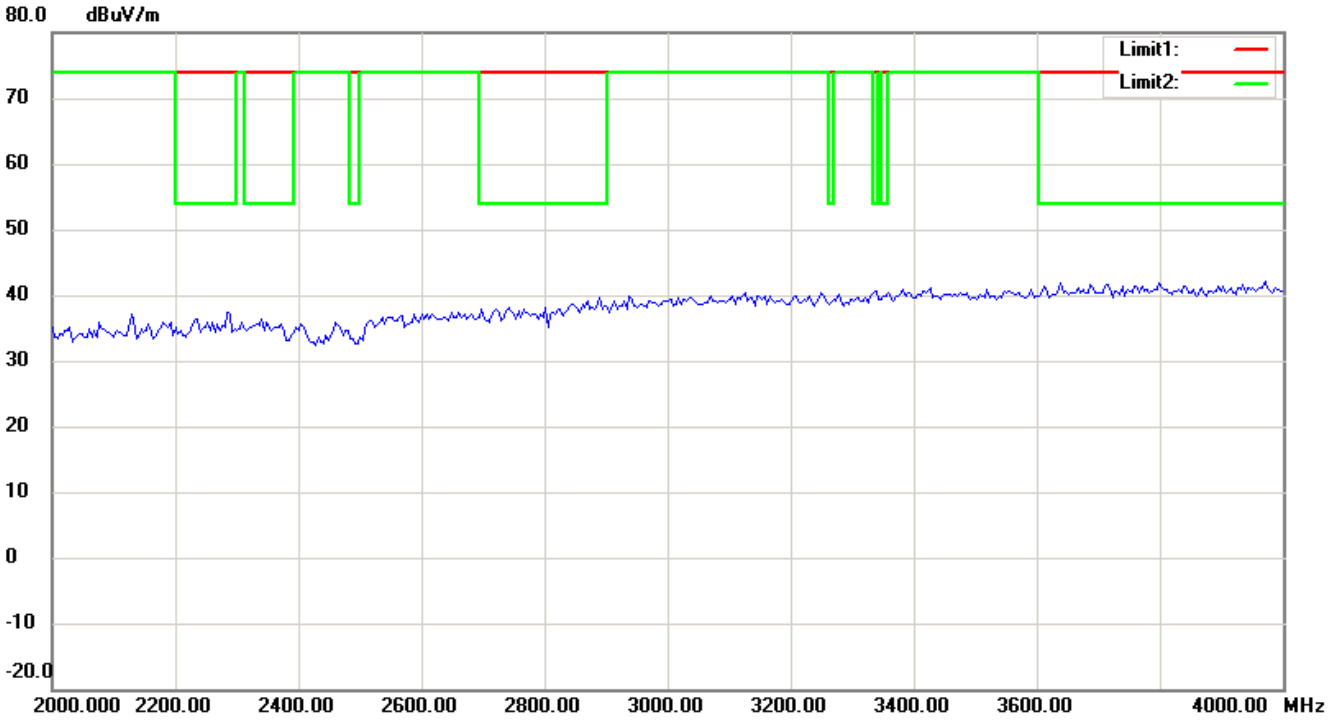




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

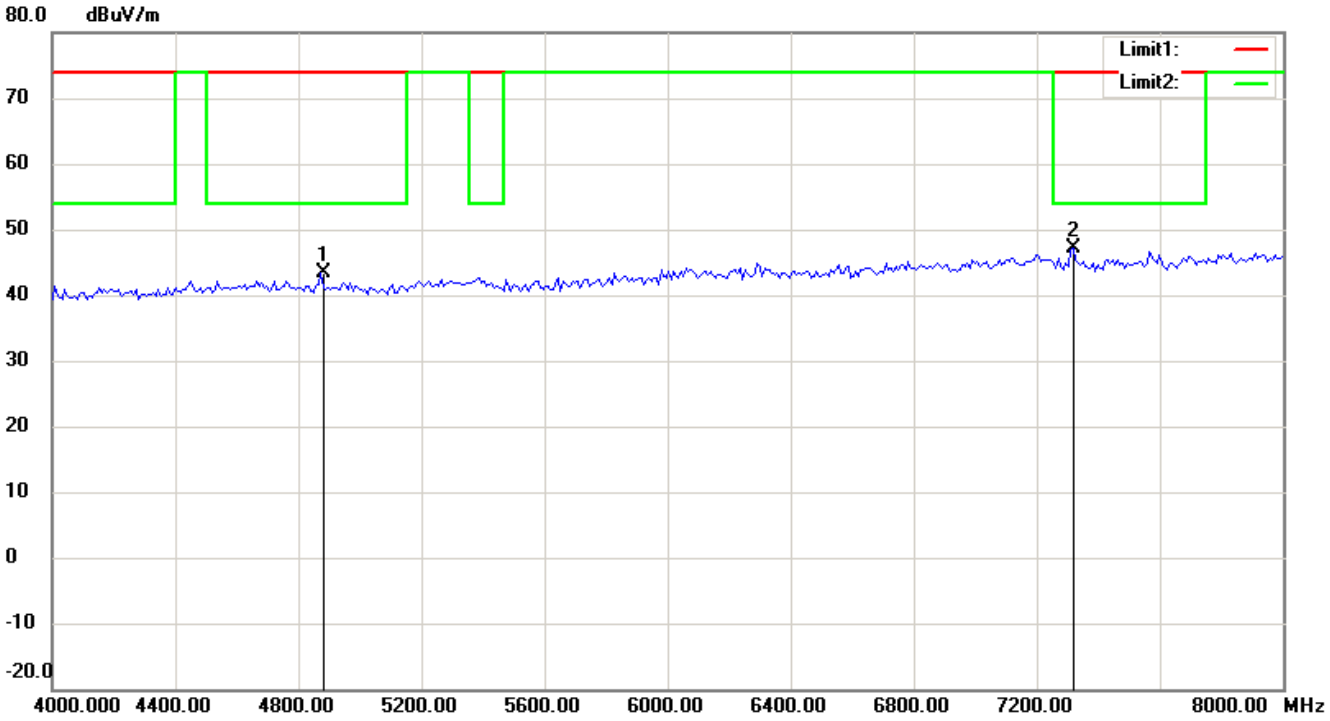


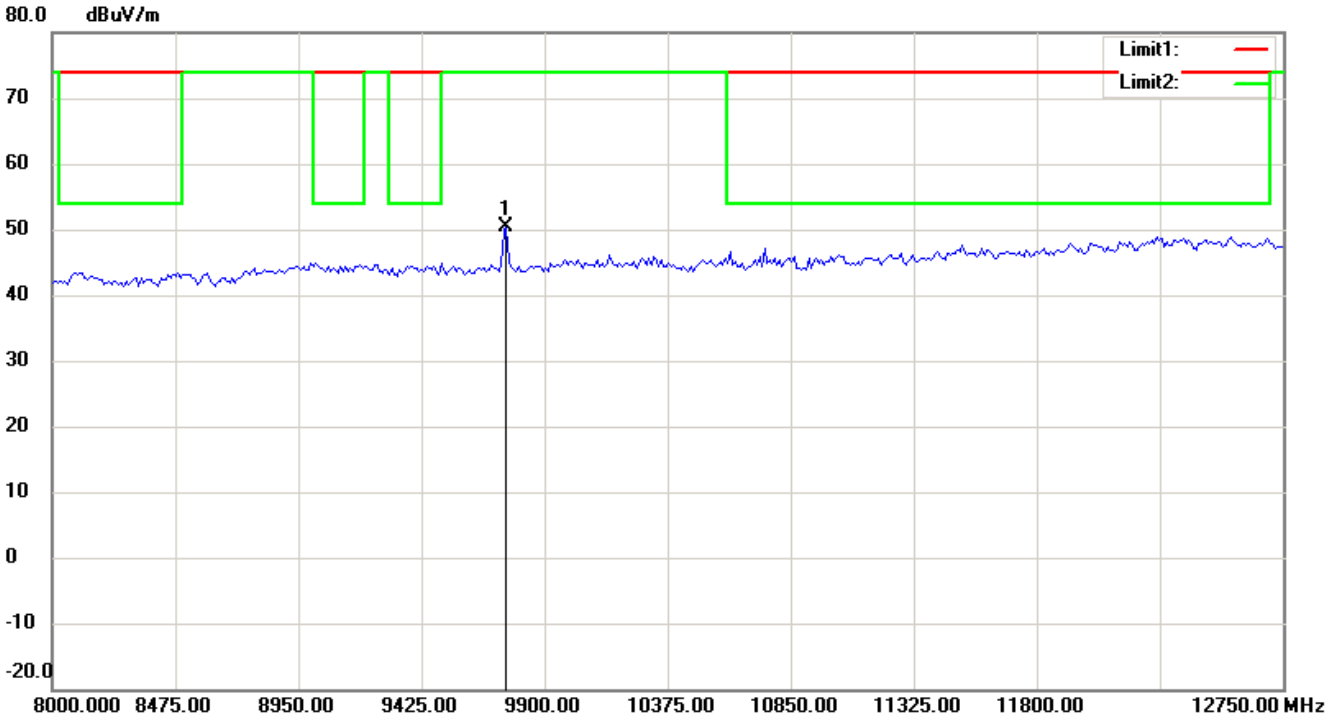




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

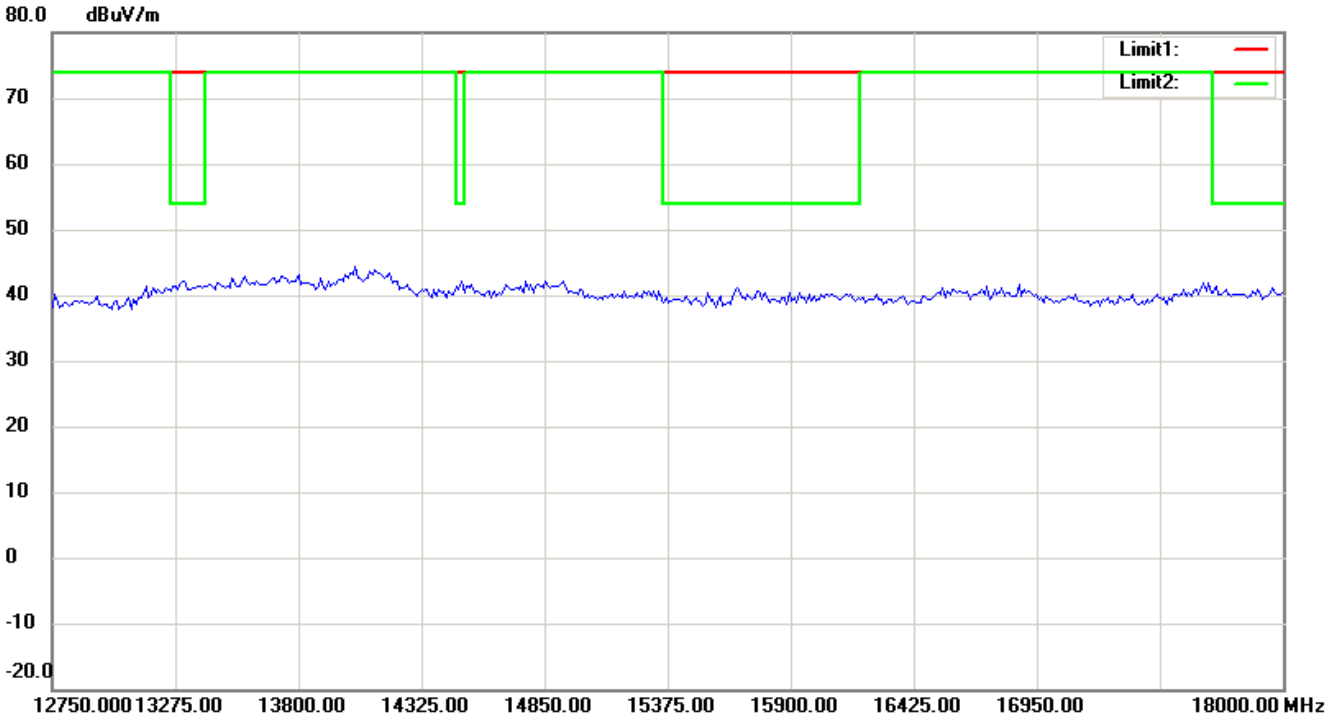


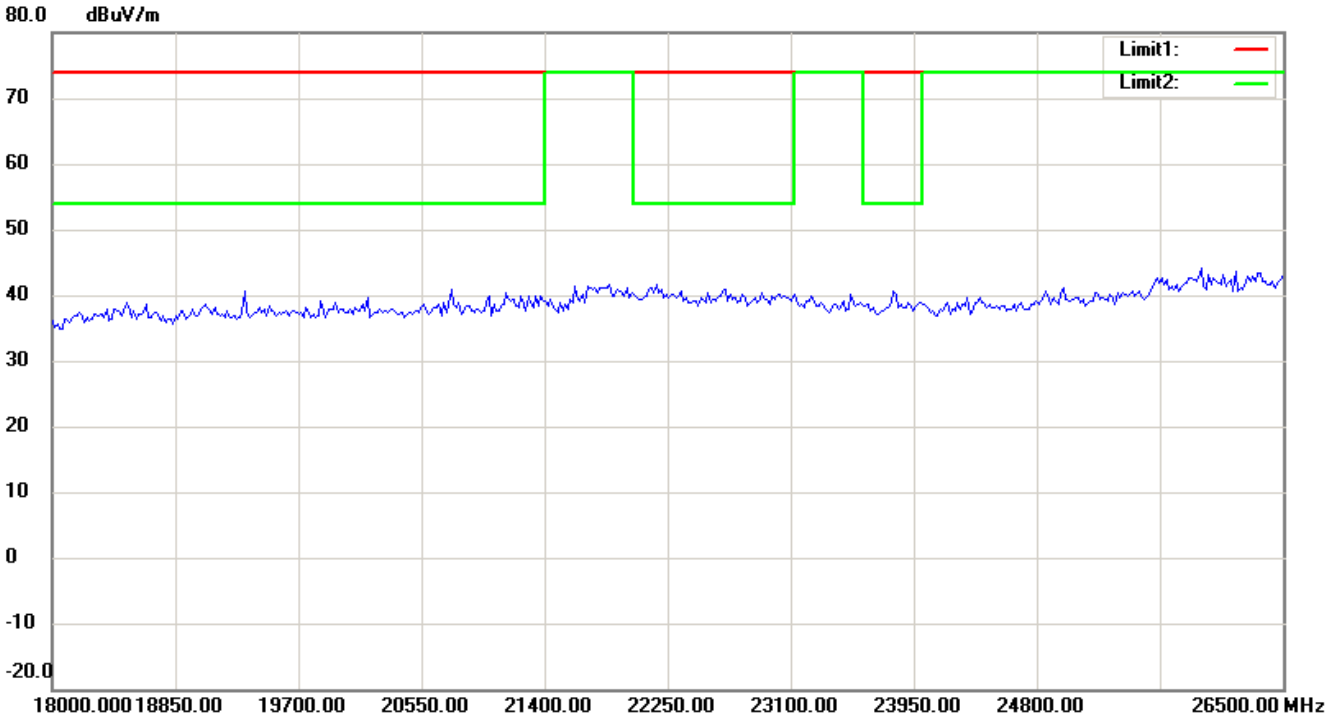




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



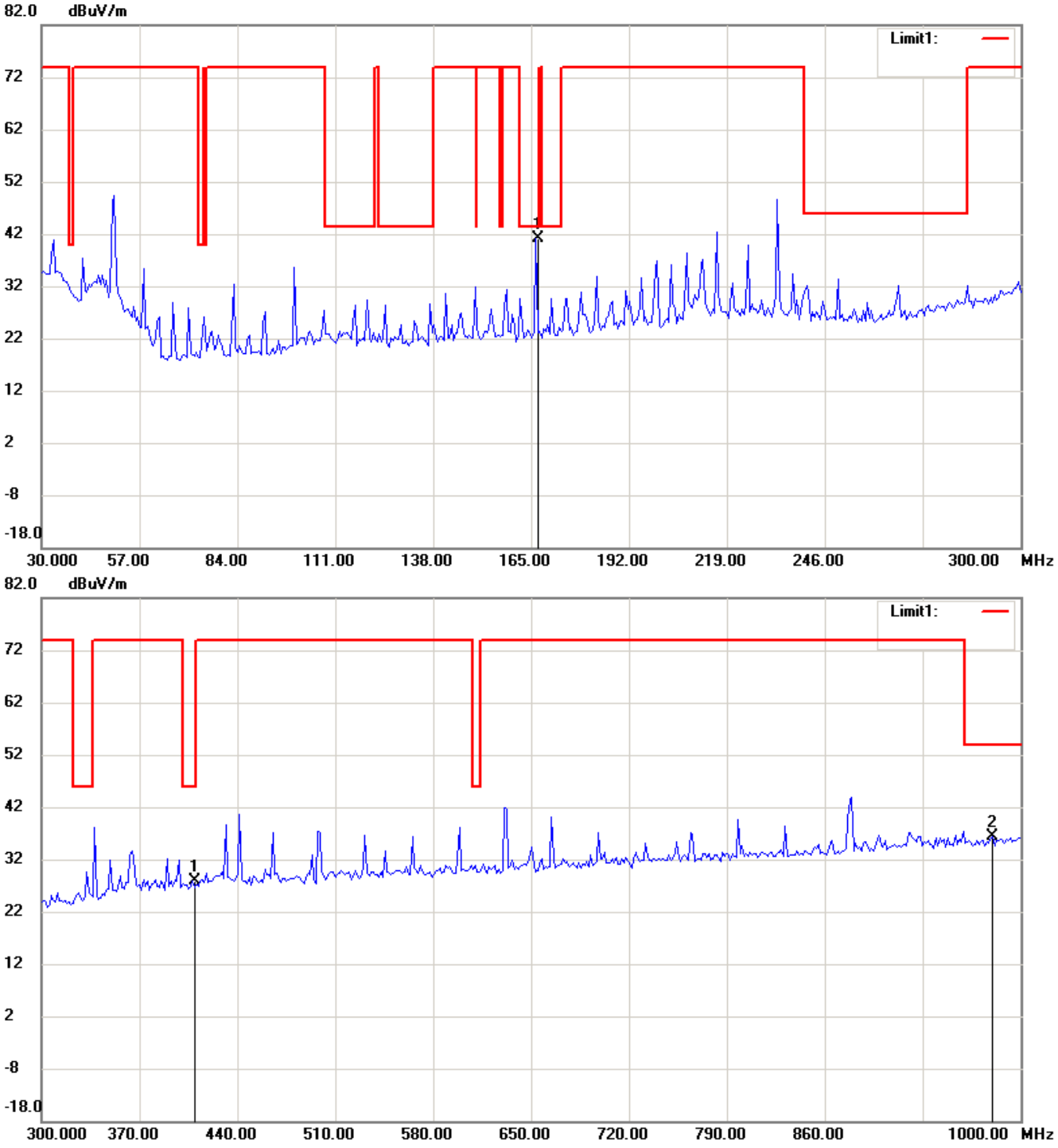




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

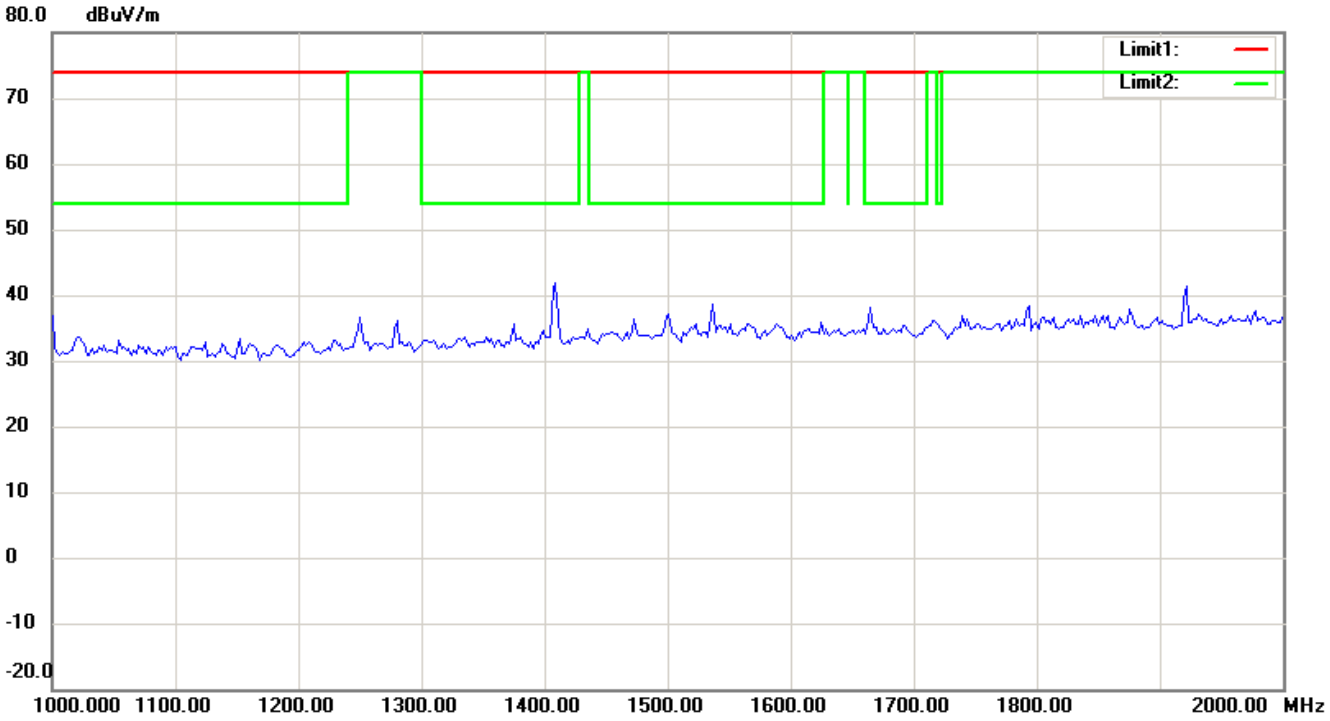
## Antenna Polarization V

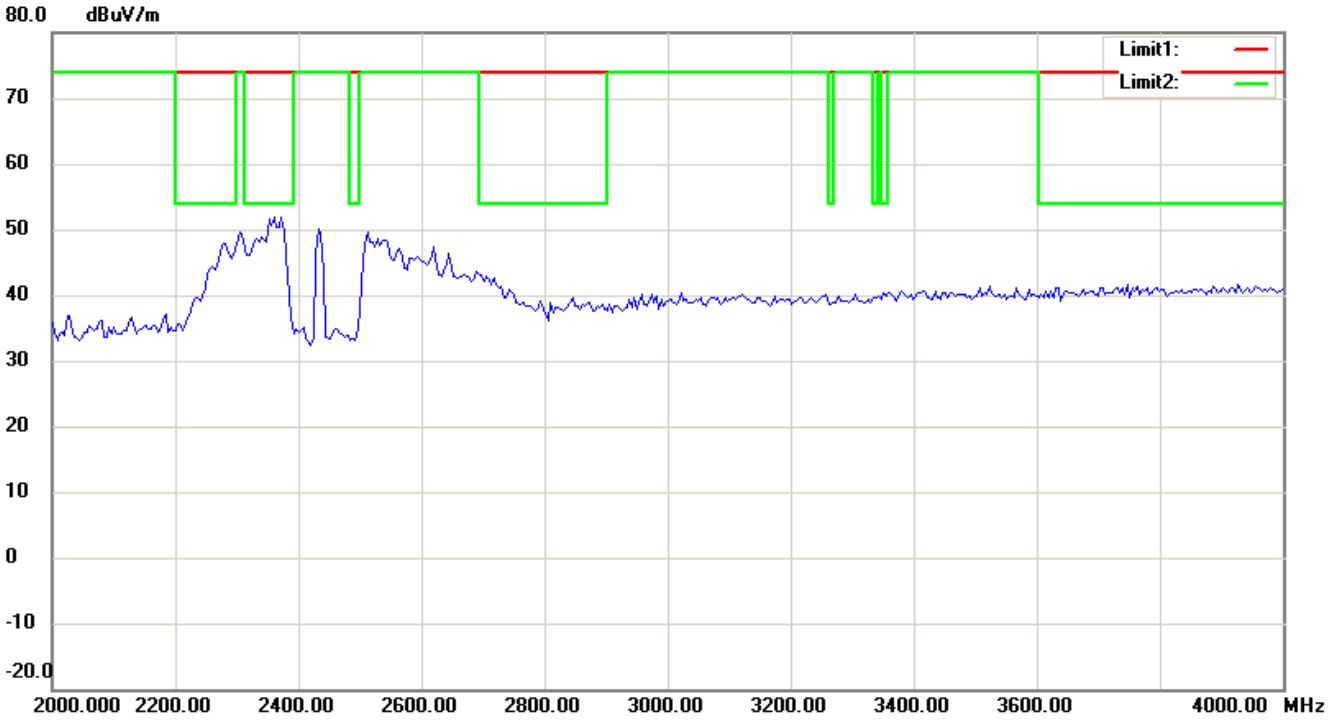



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

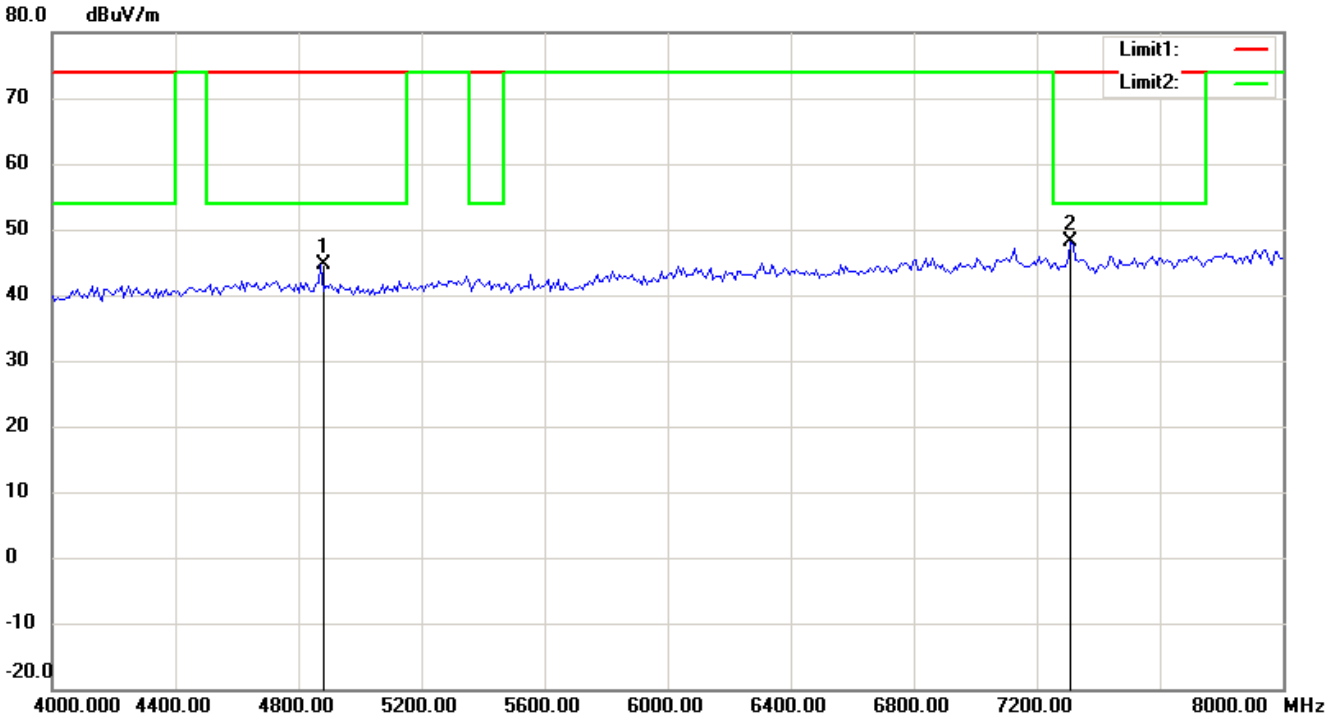


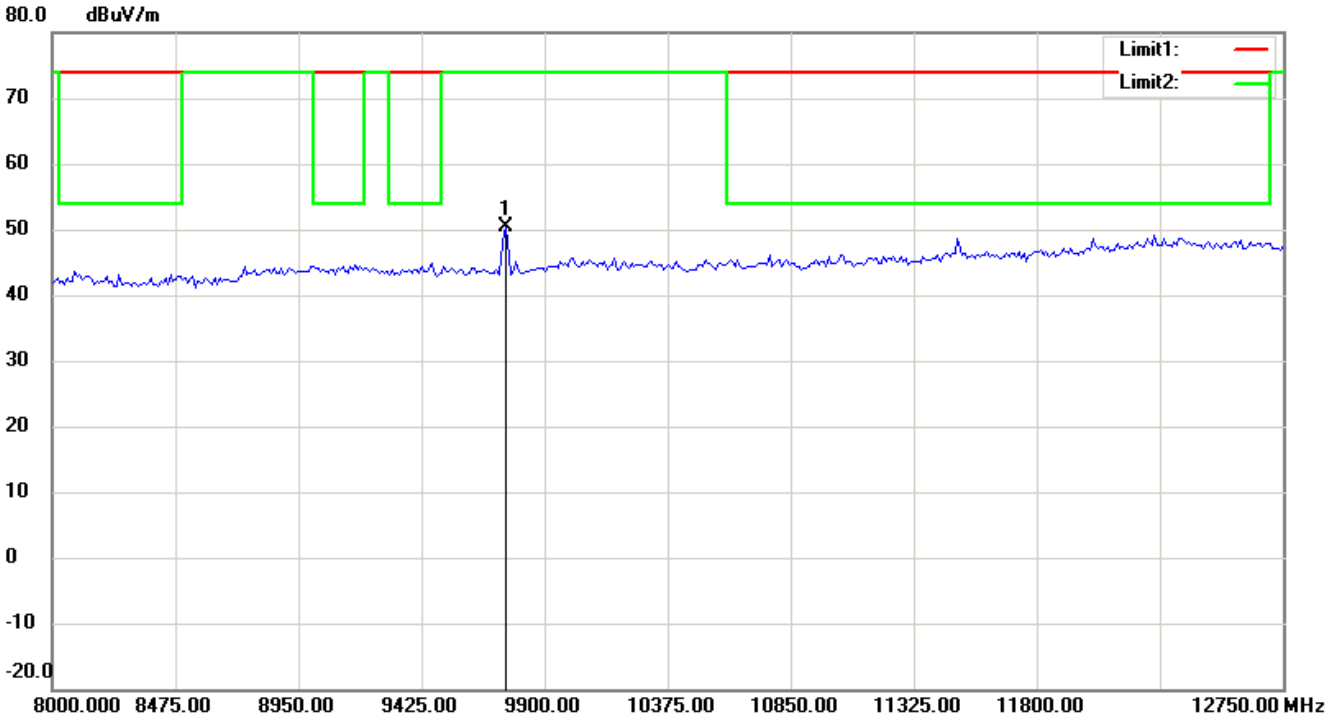




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

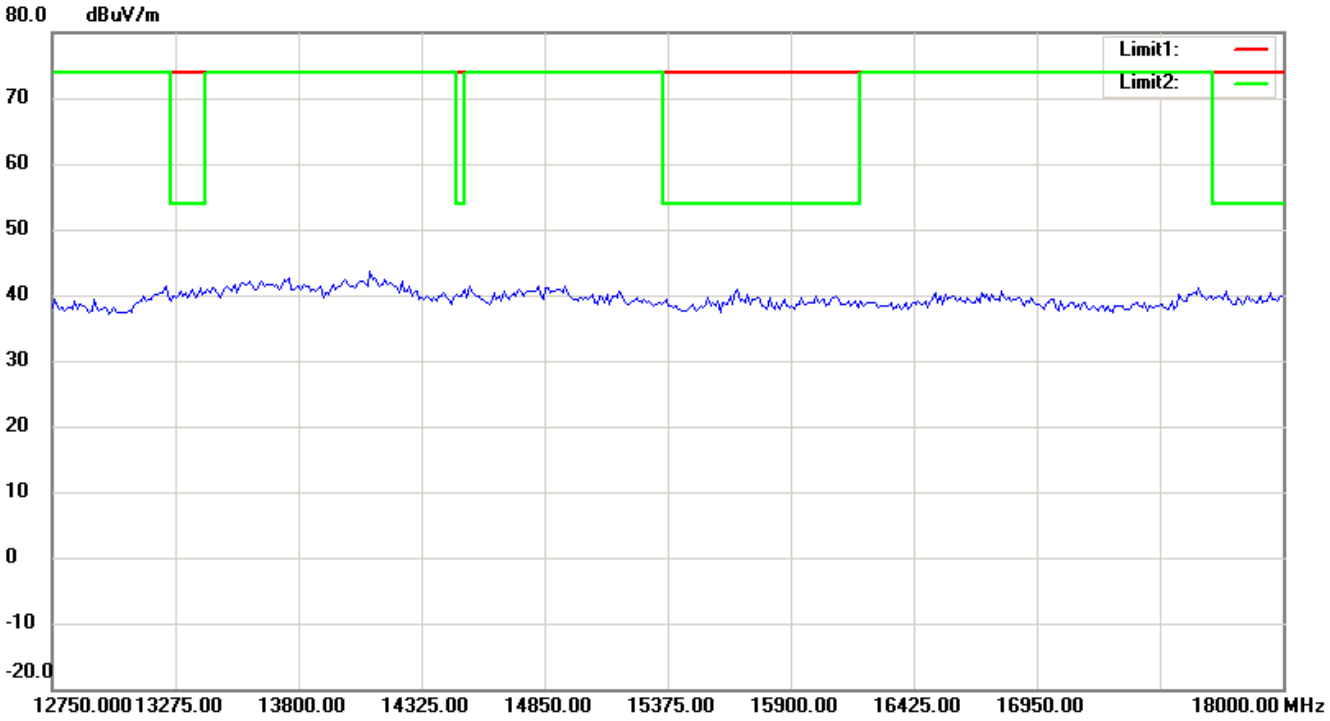


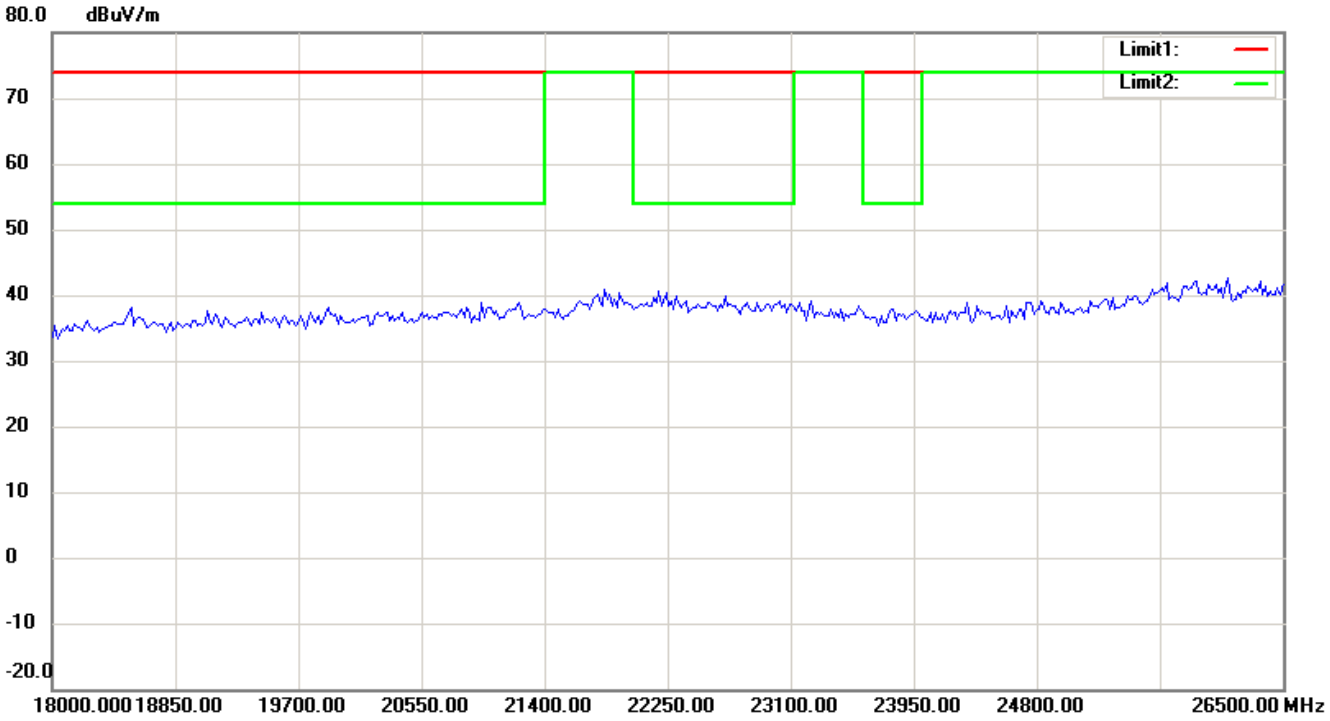




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



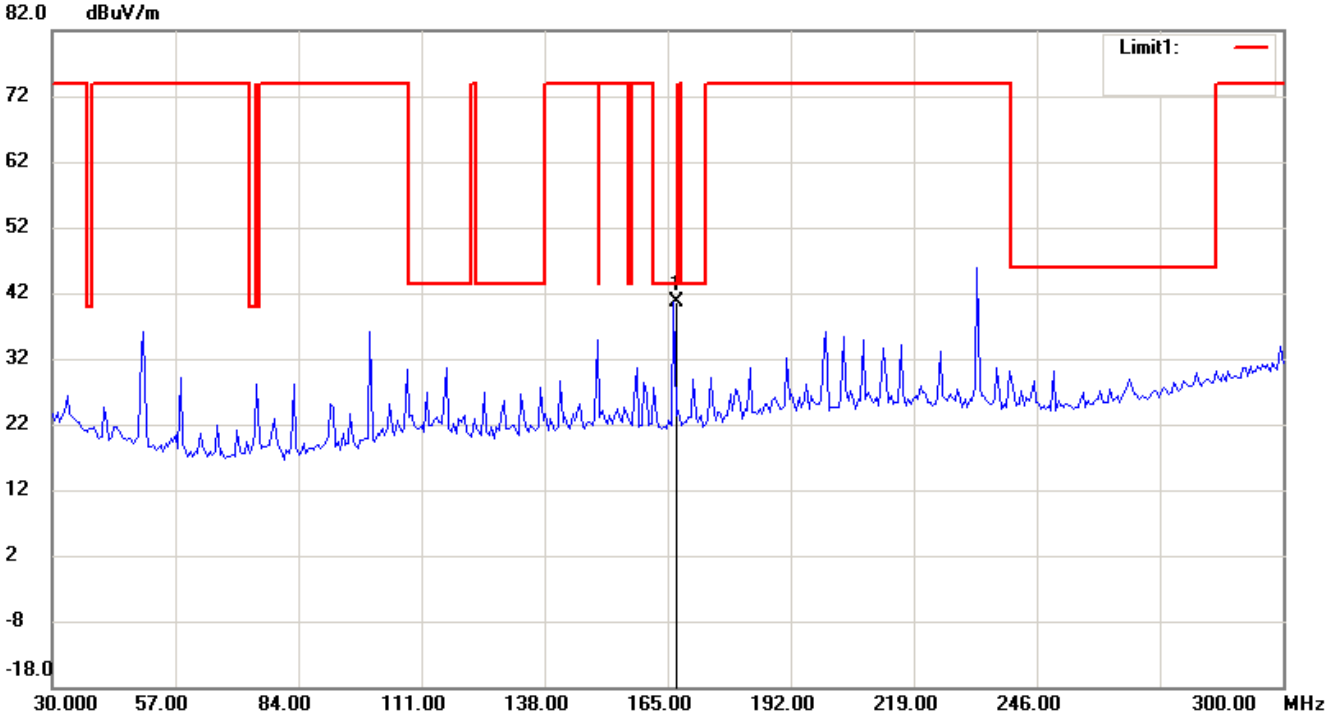



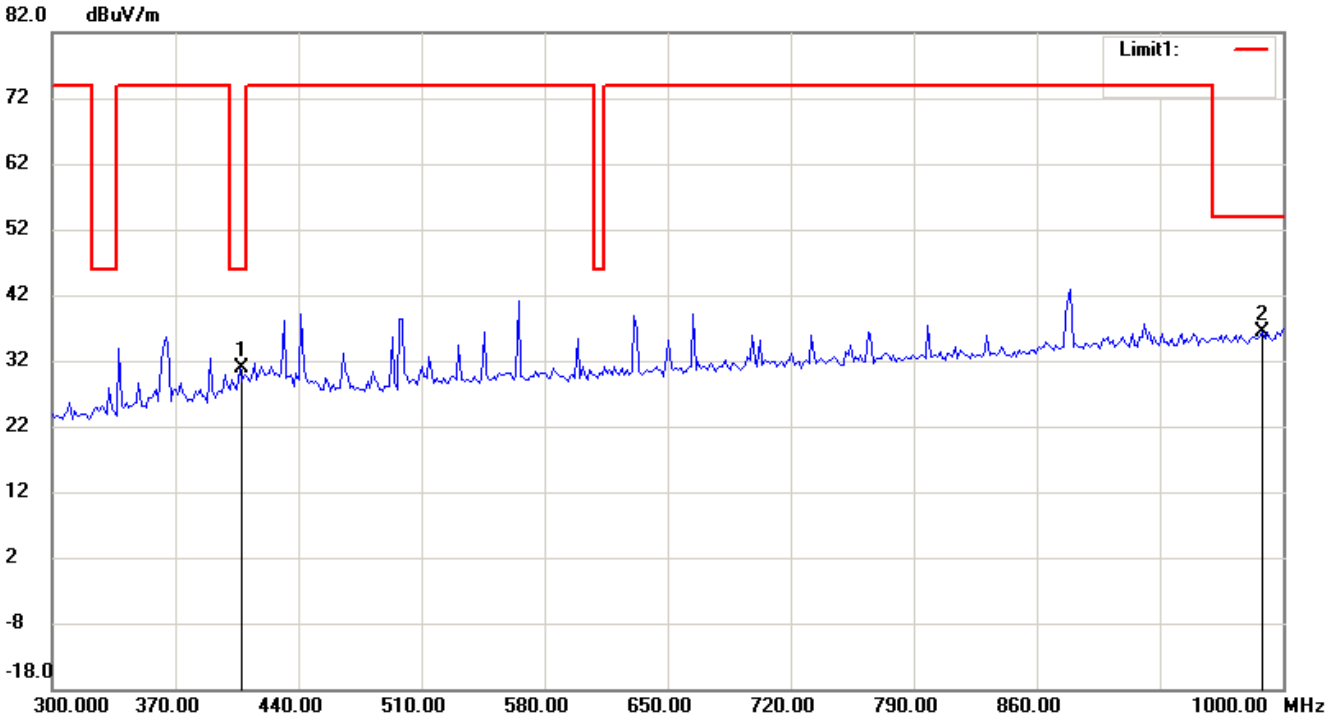

**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

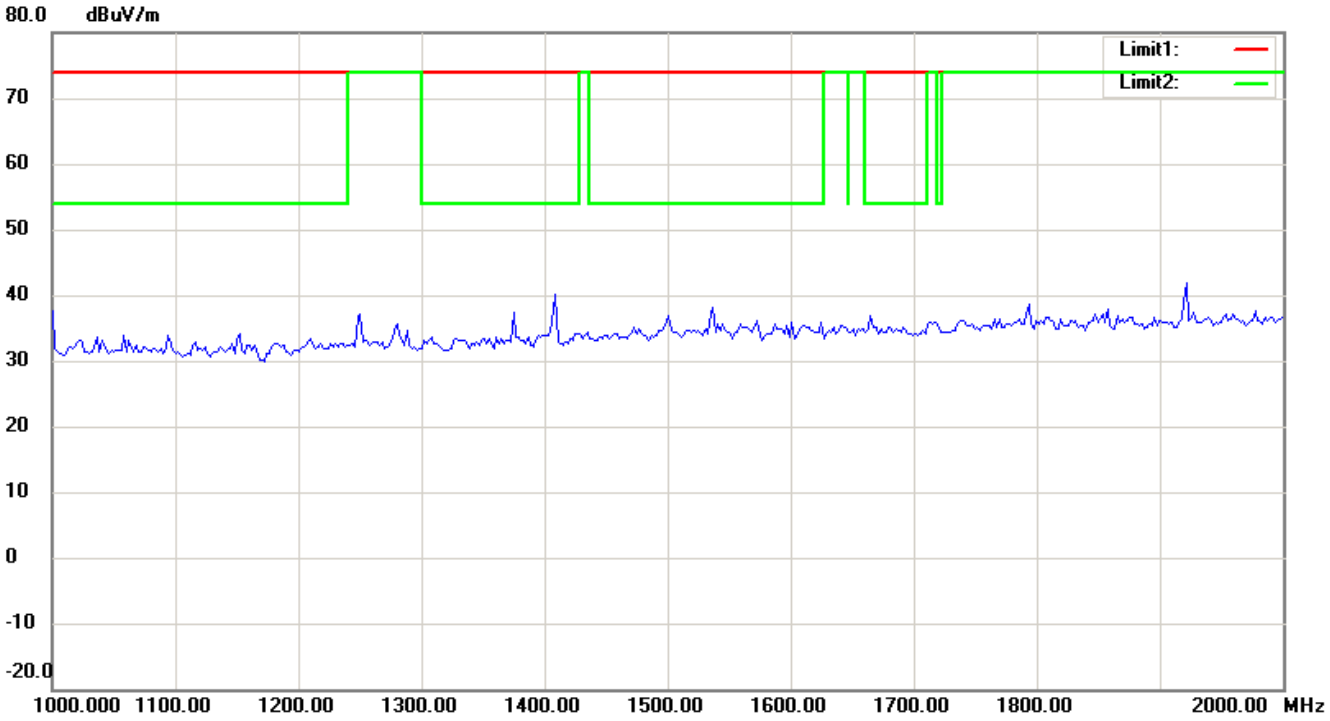
Channel 11
Antenna Polarization H

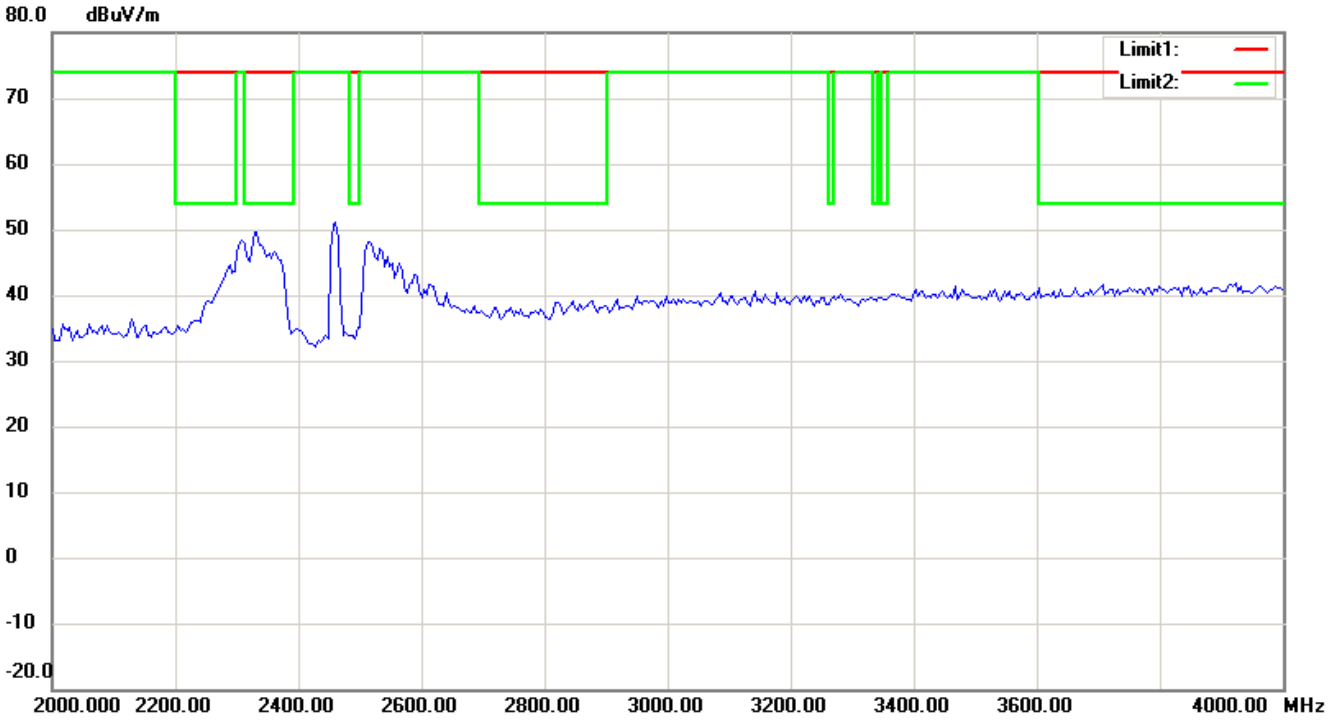



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**
**1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
**3. For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

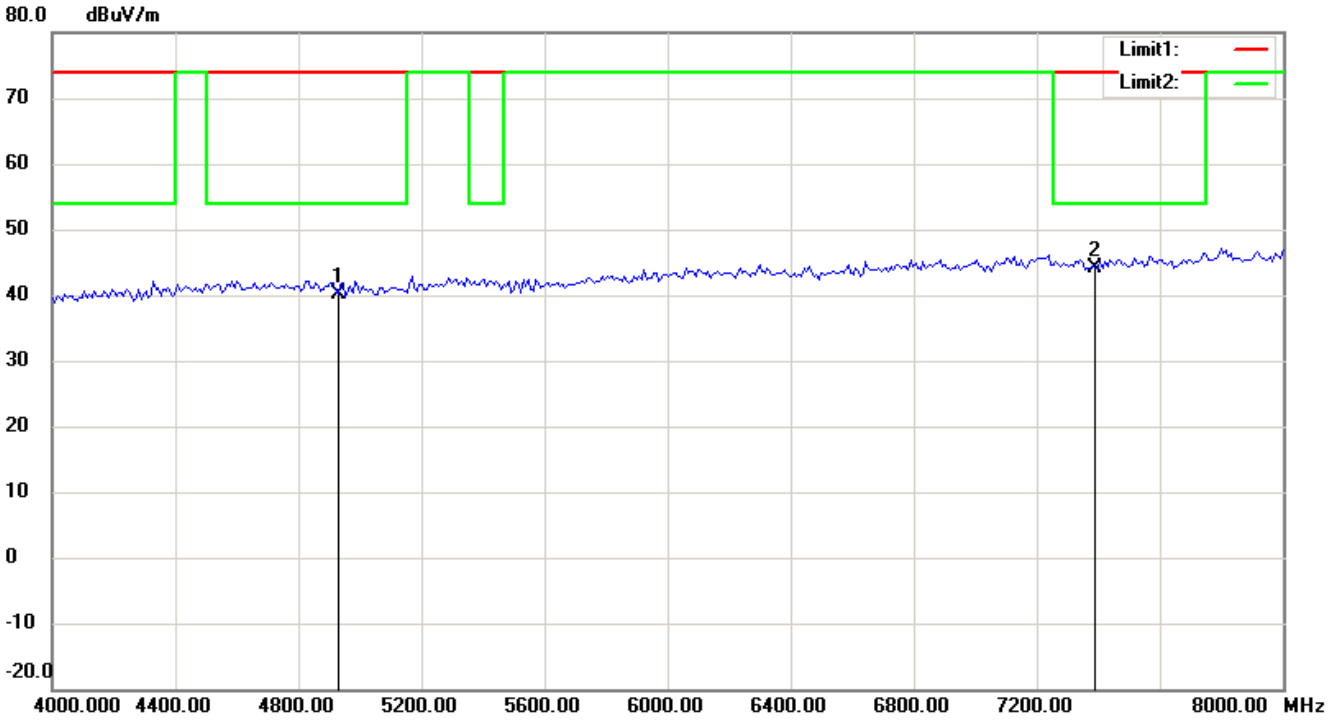


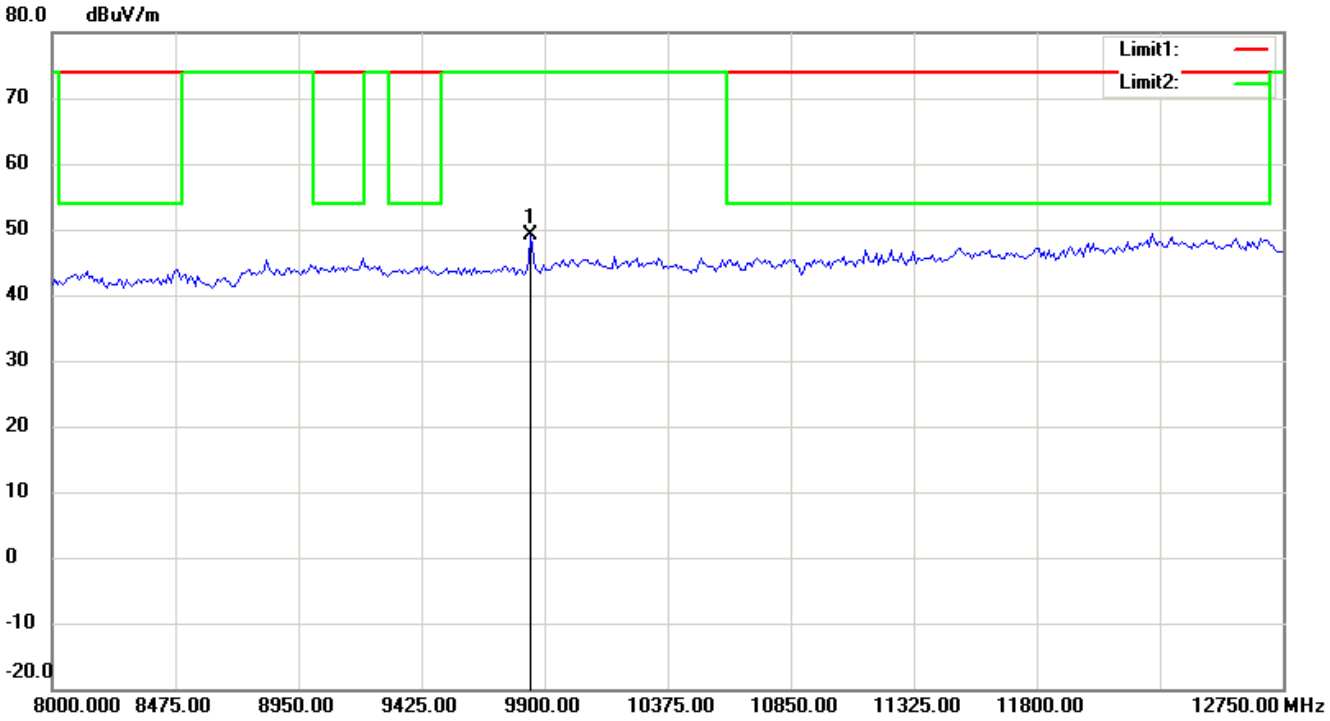




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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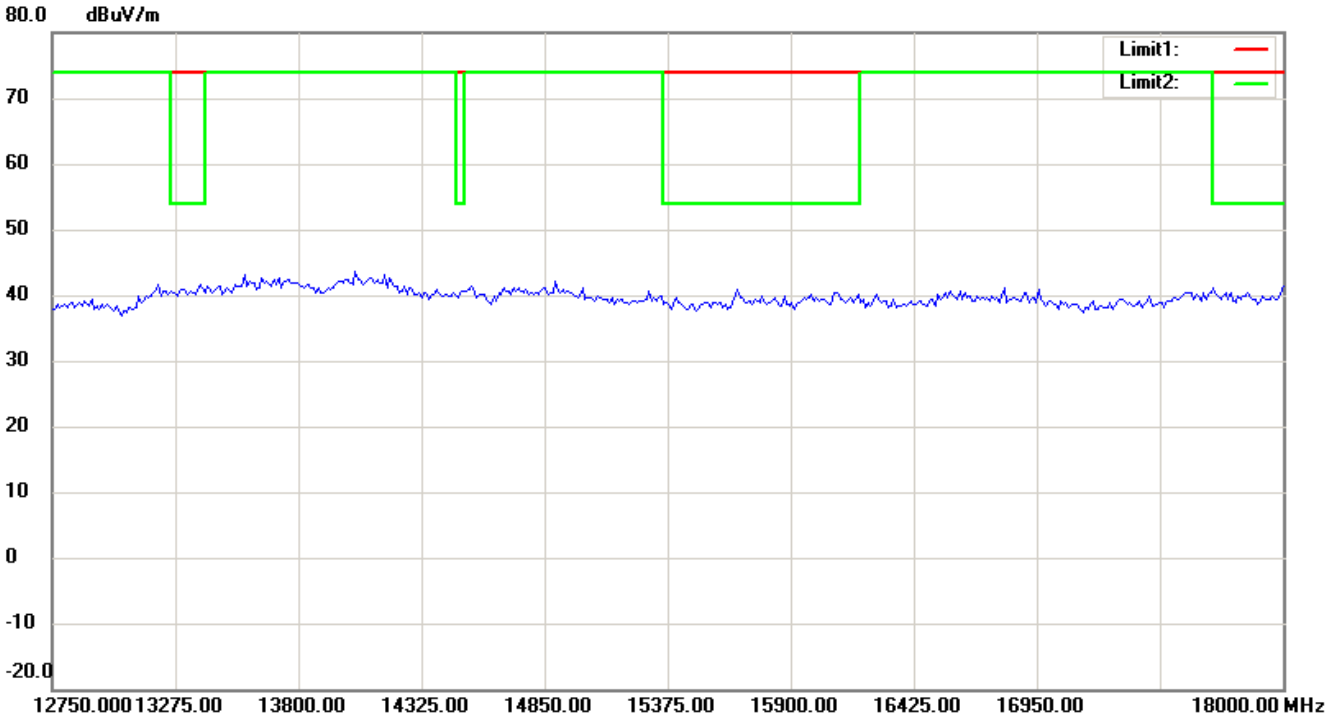
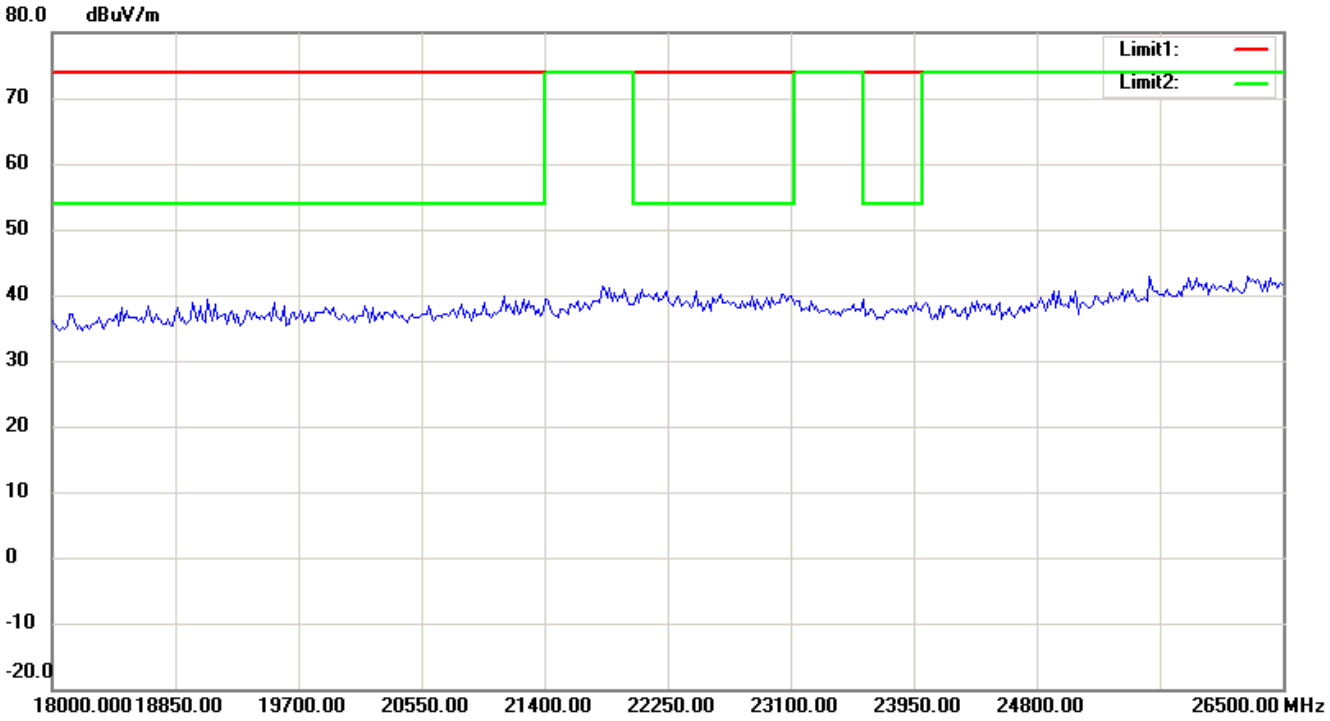
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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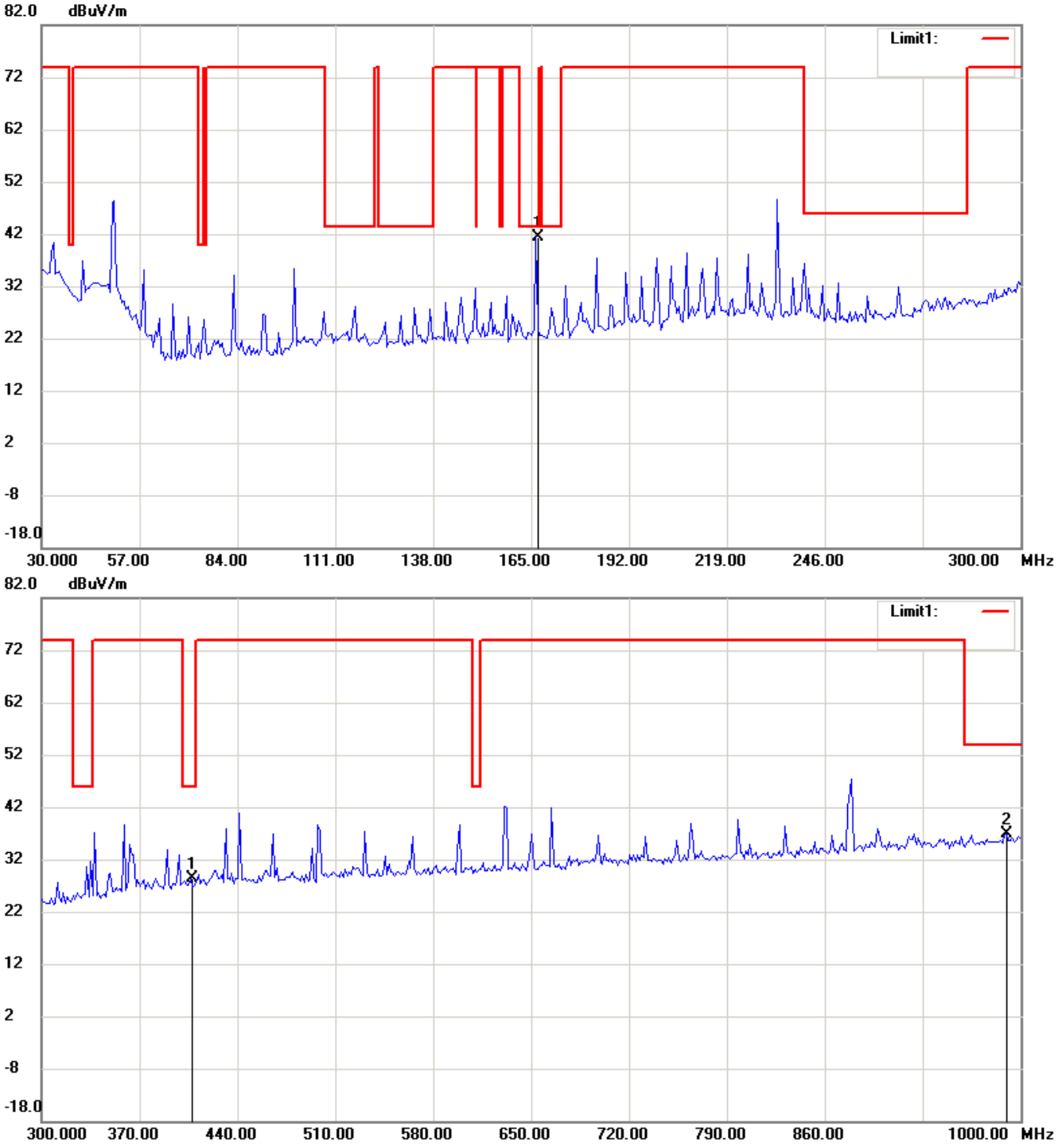
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

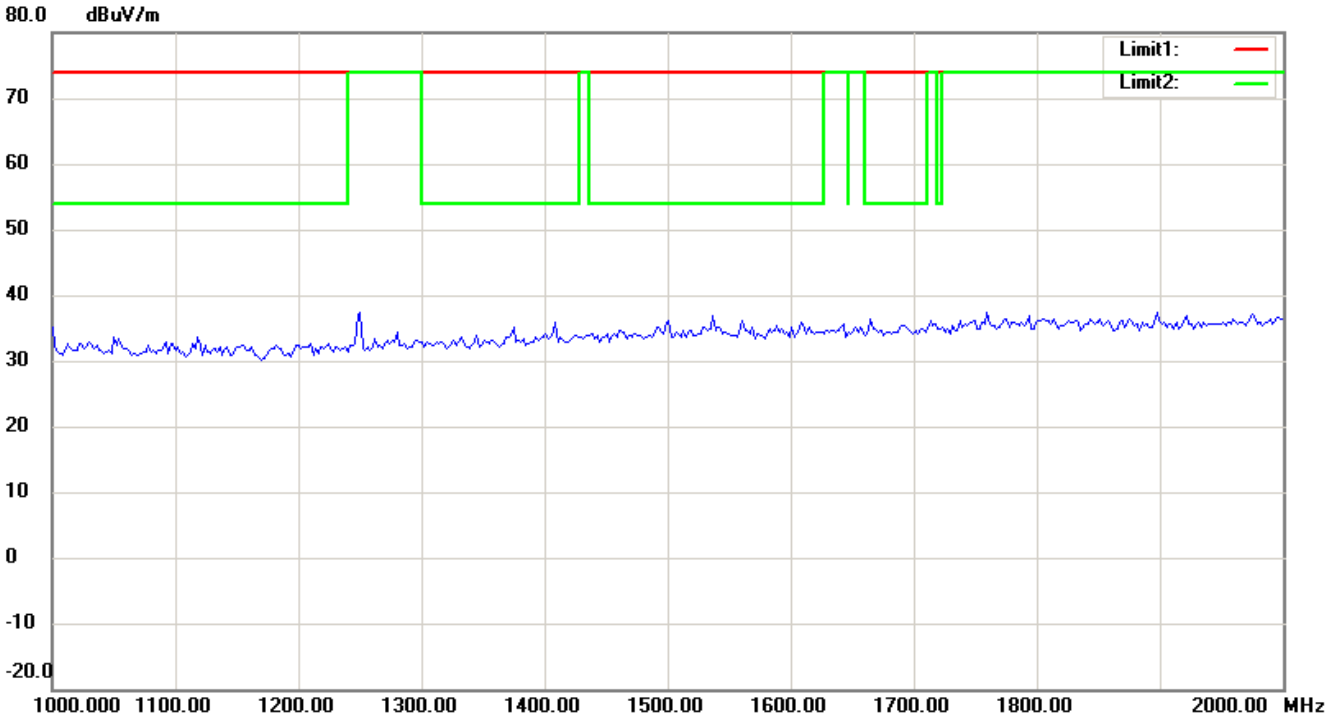
## Antenna Polarization V

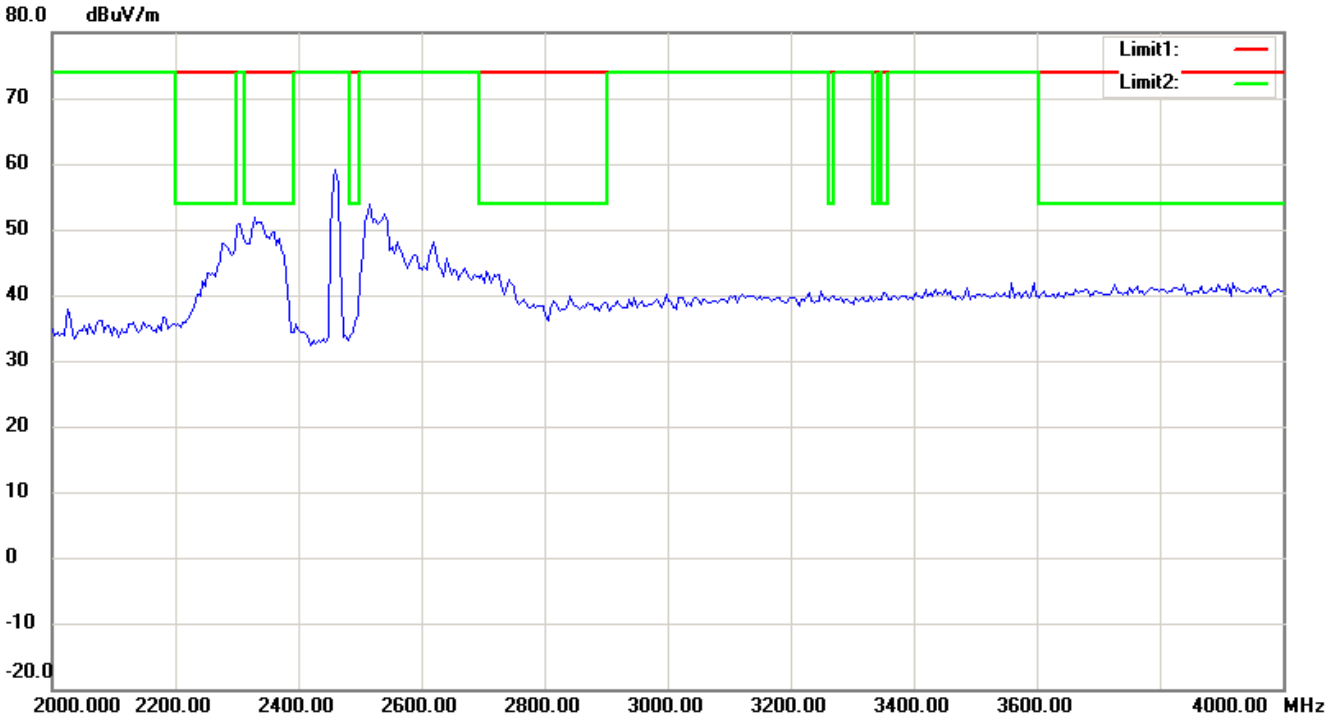



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

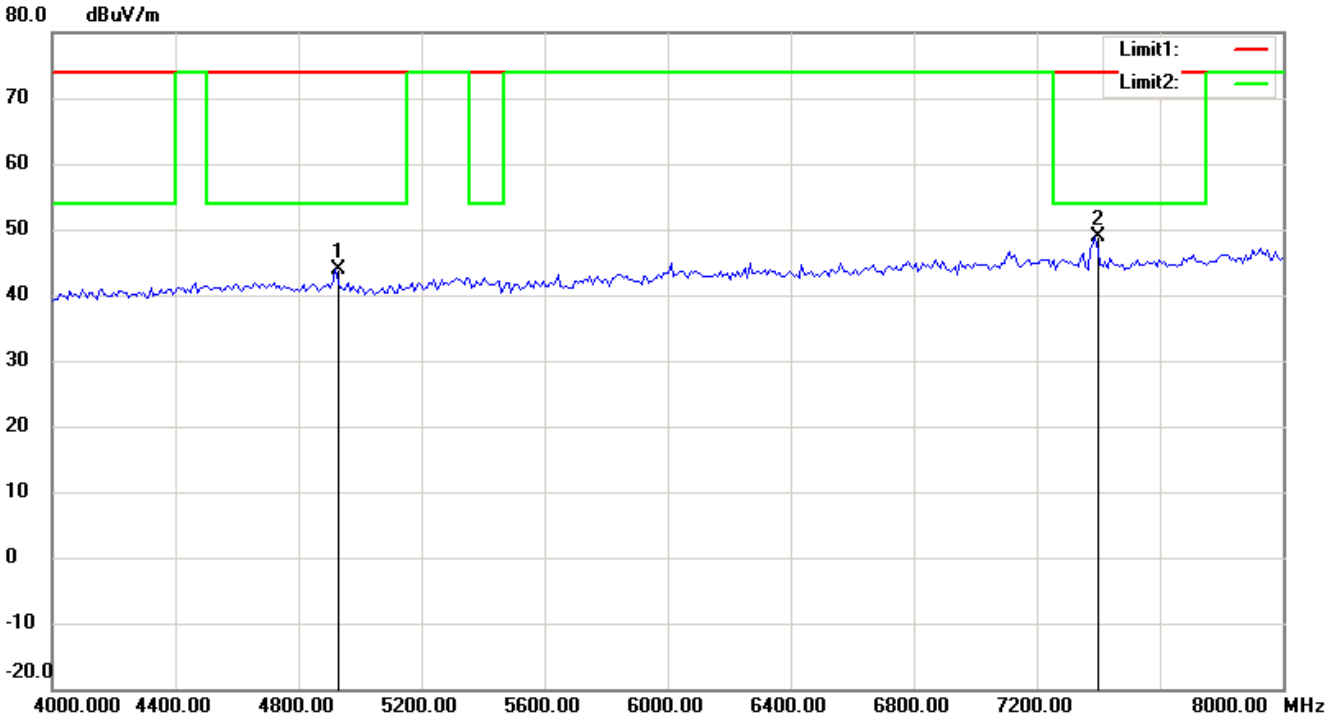


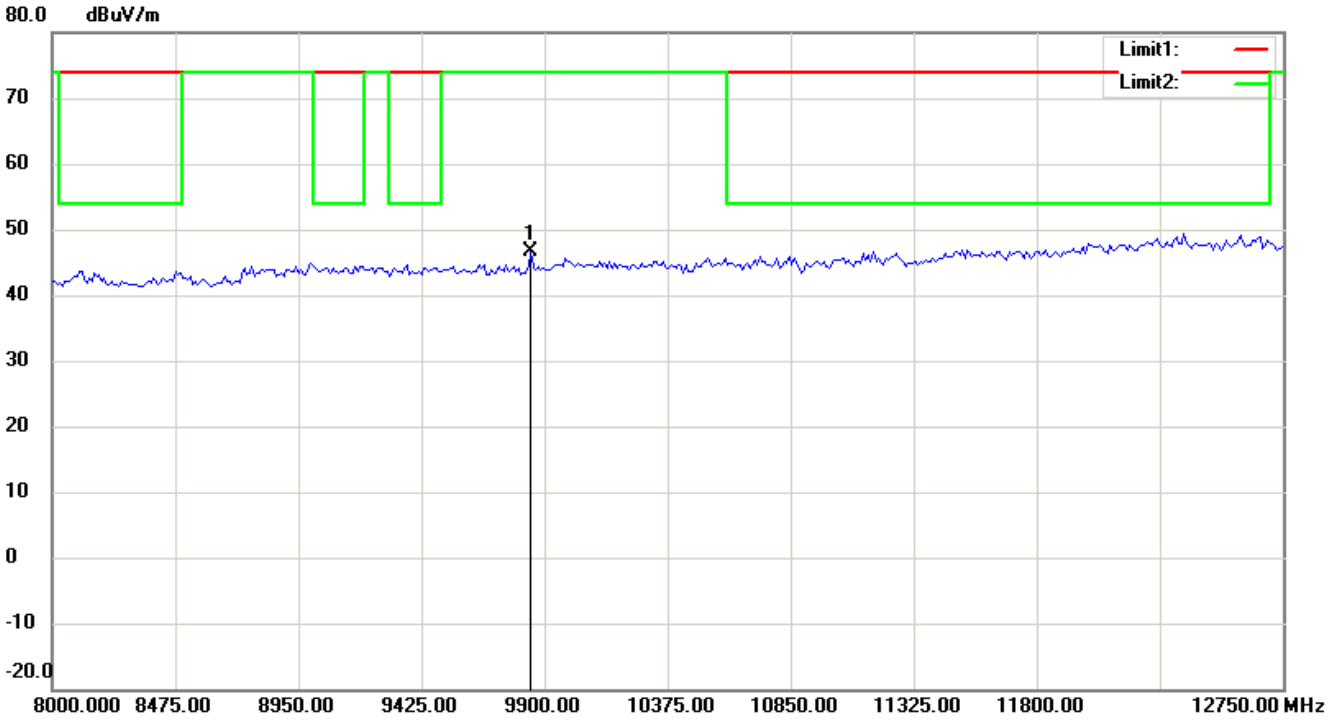




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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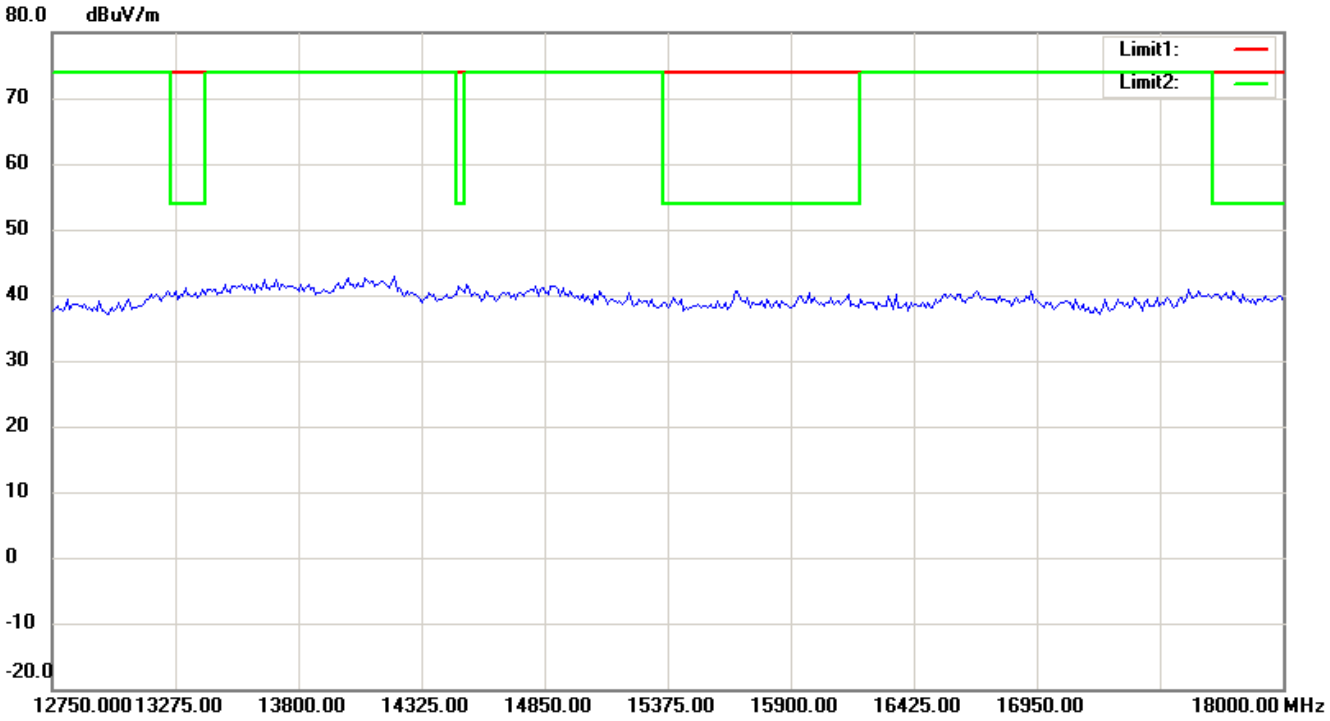
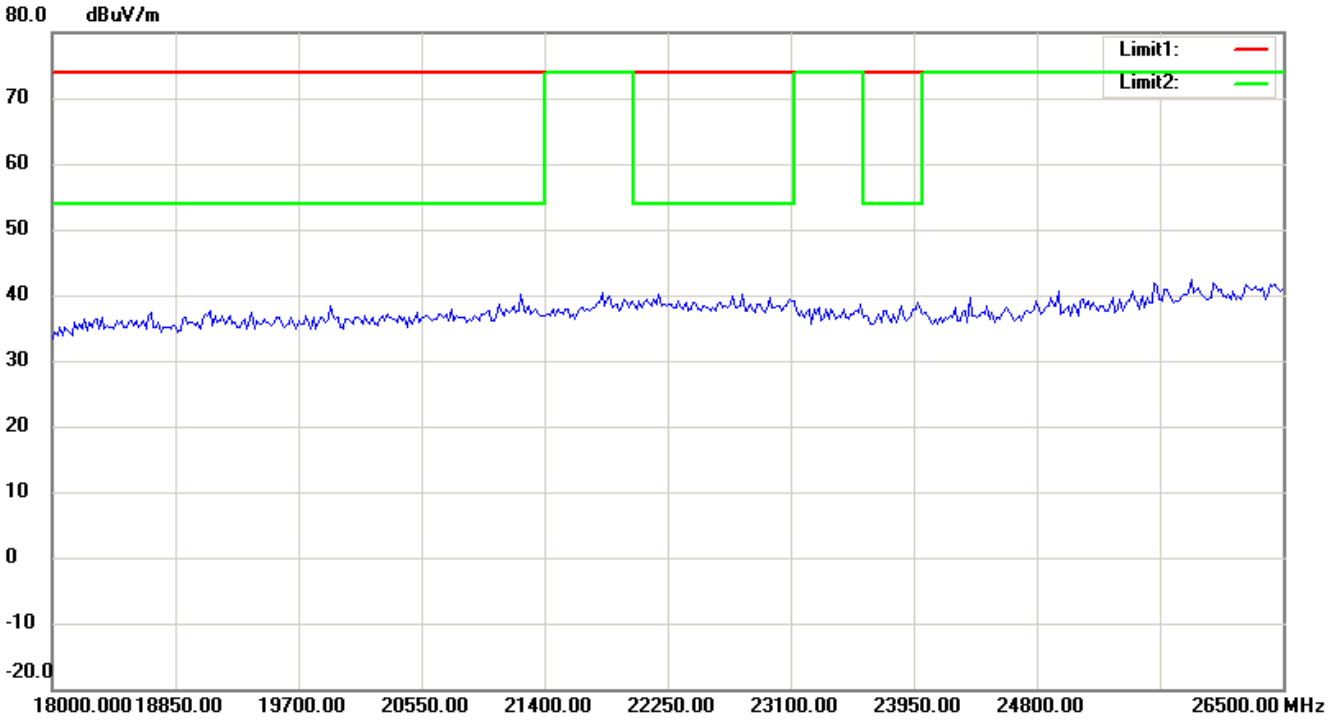
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

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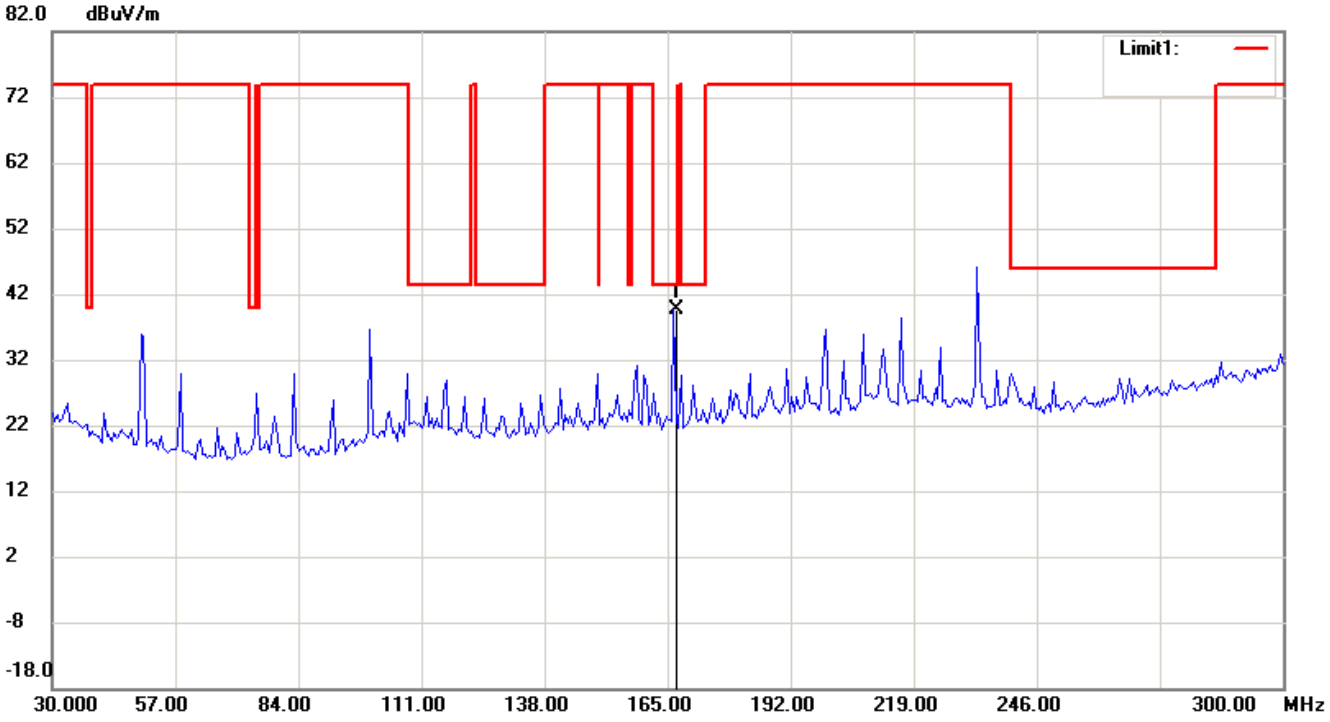
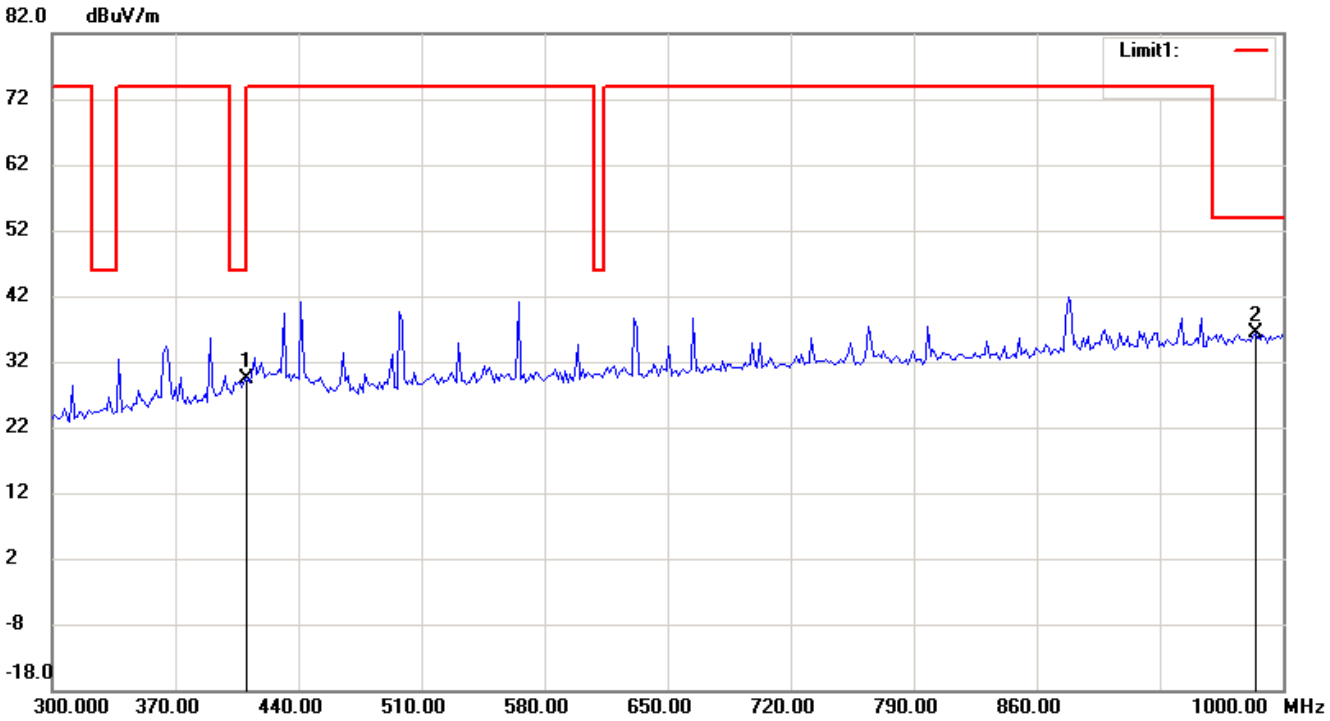
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

802.11g
Channel 1
Antenna Polarization H




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**
**1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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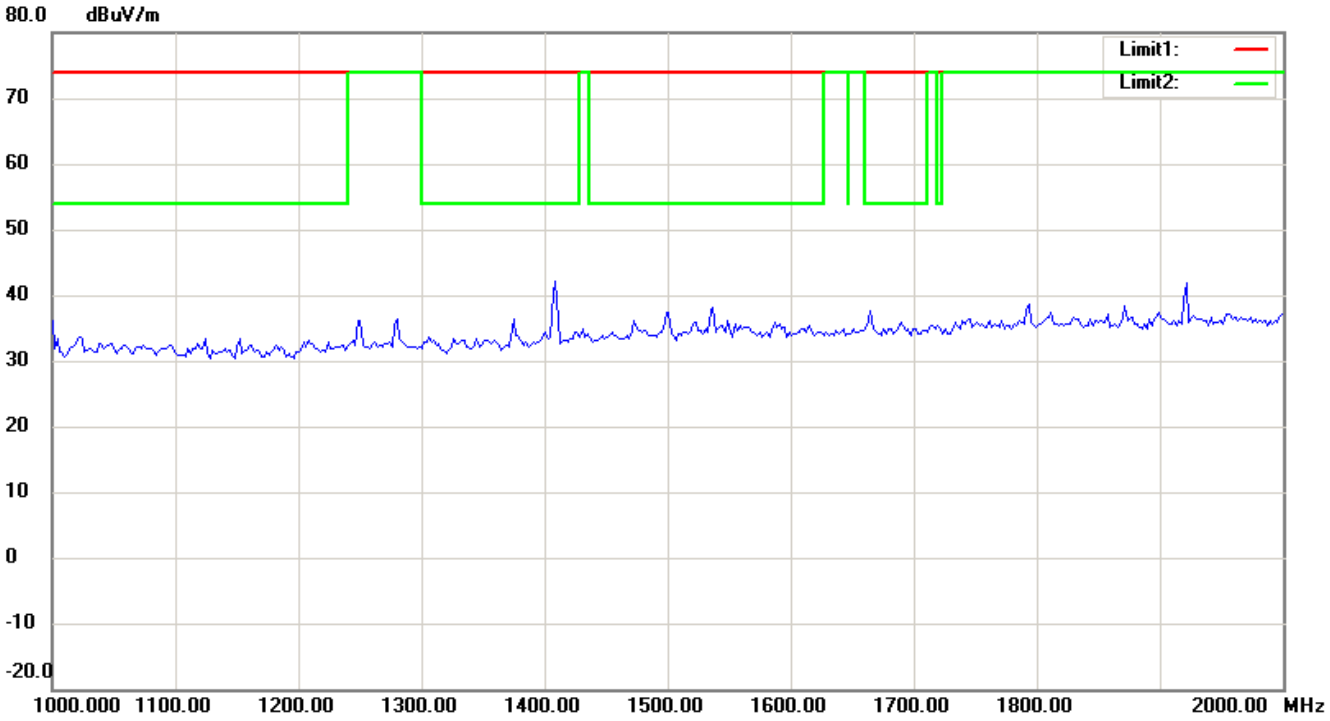
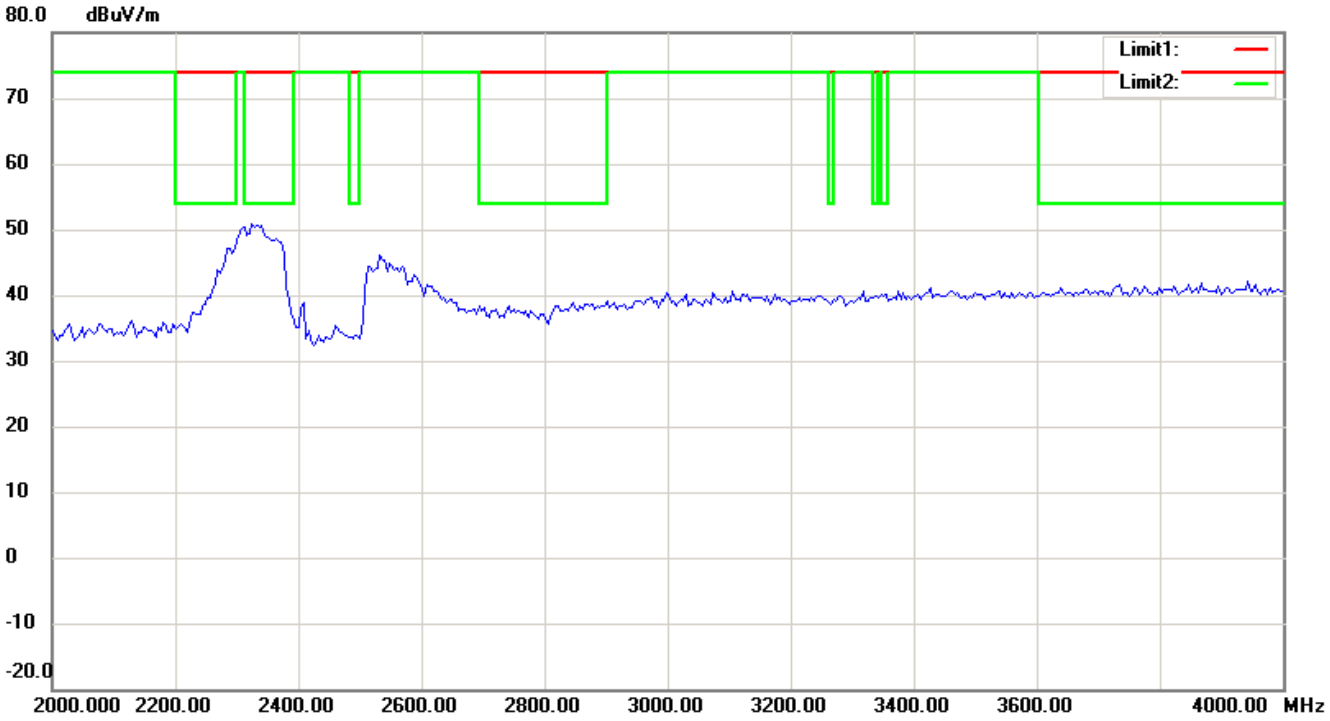
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

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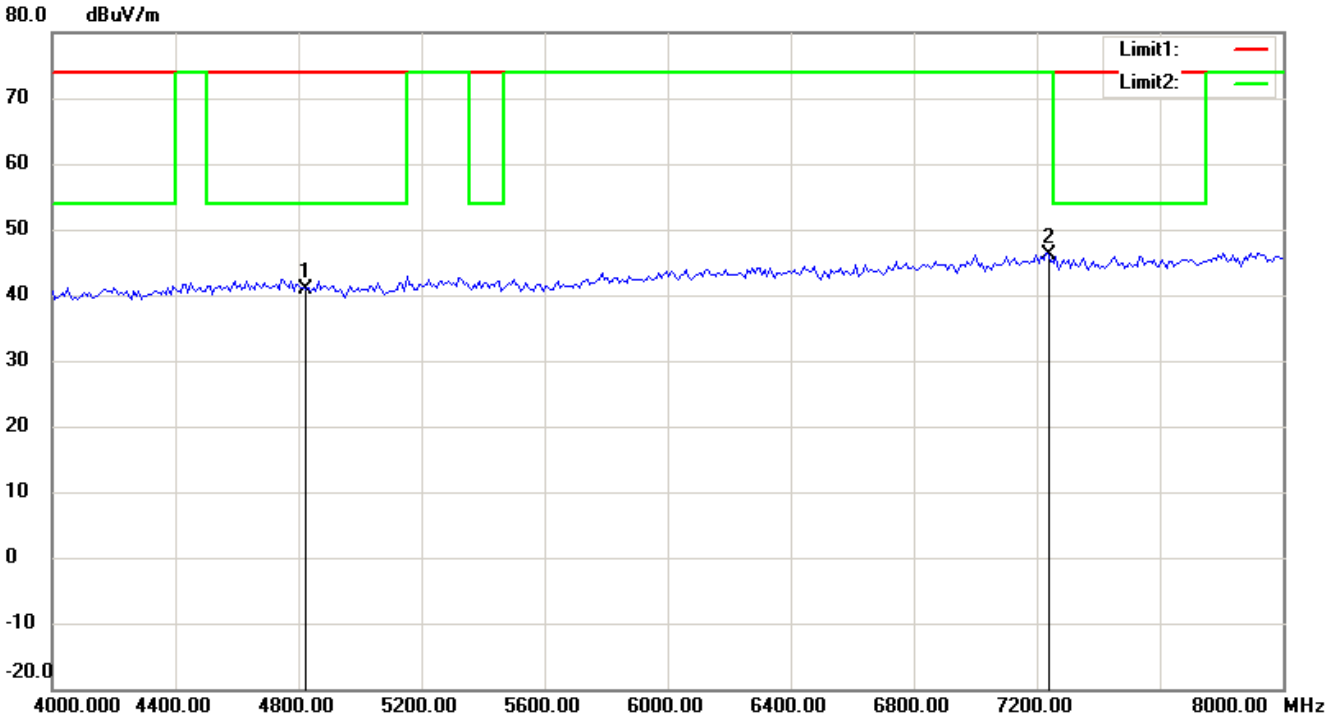
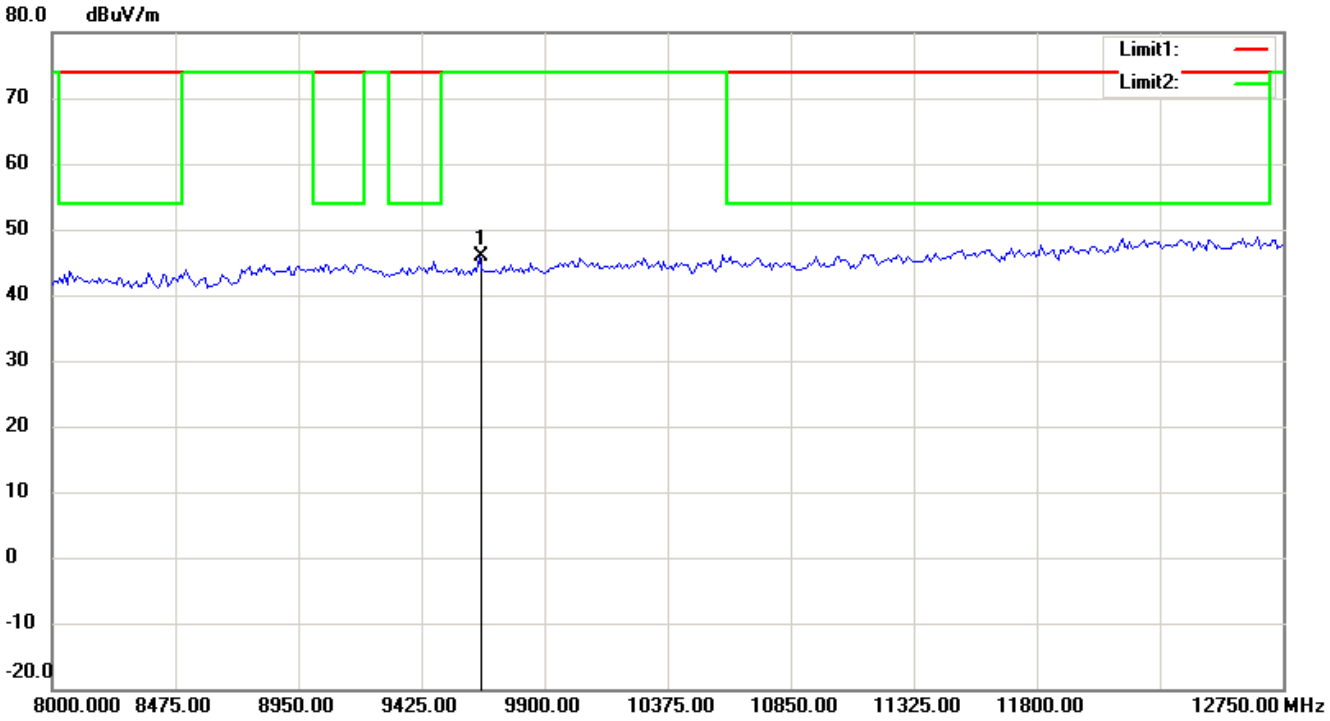
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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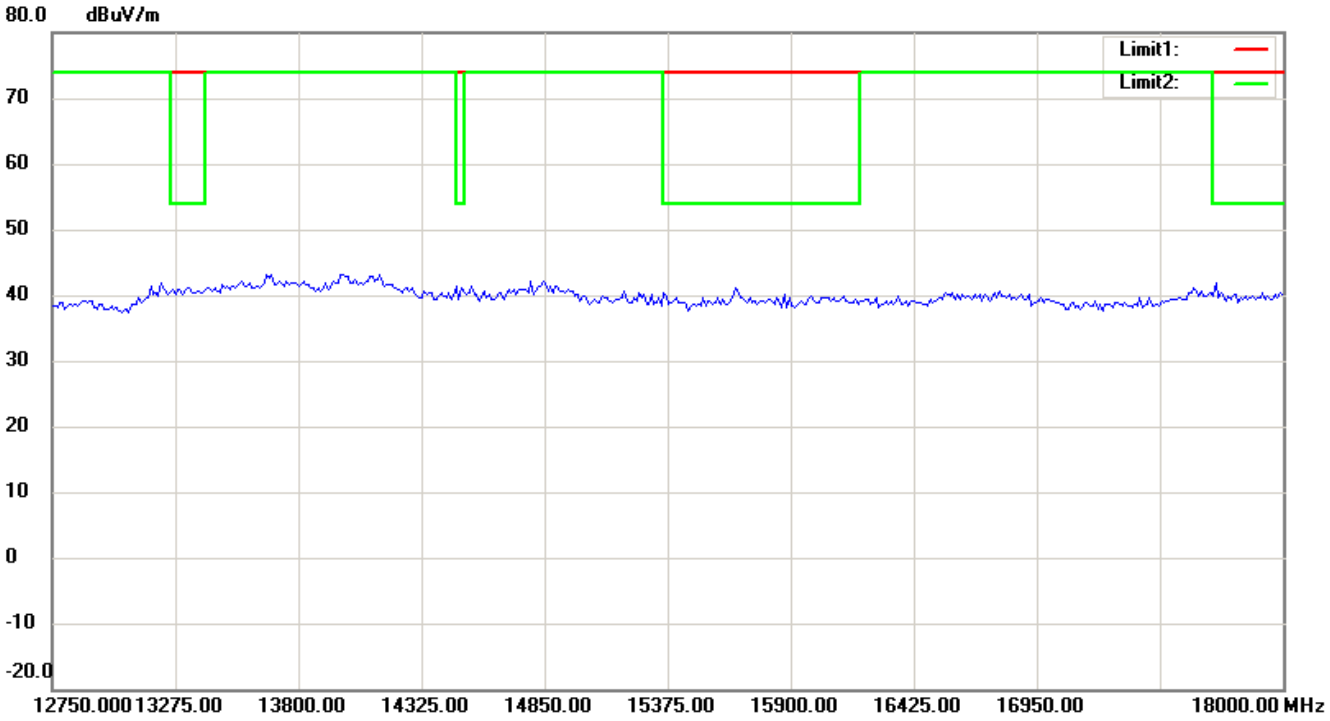
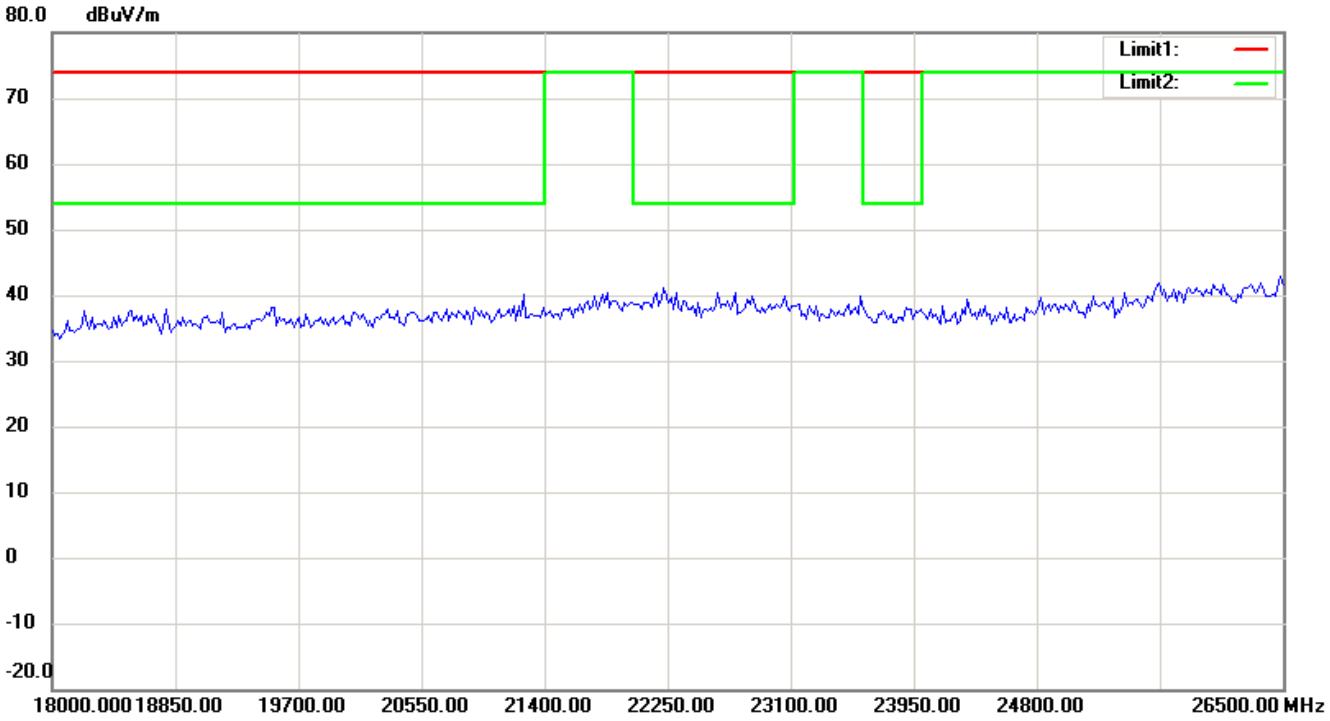
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



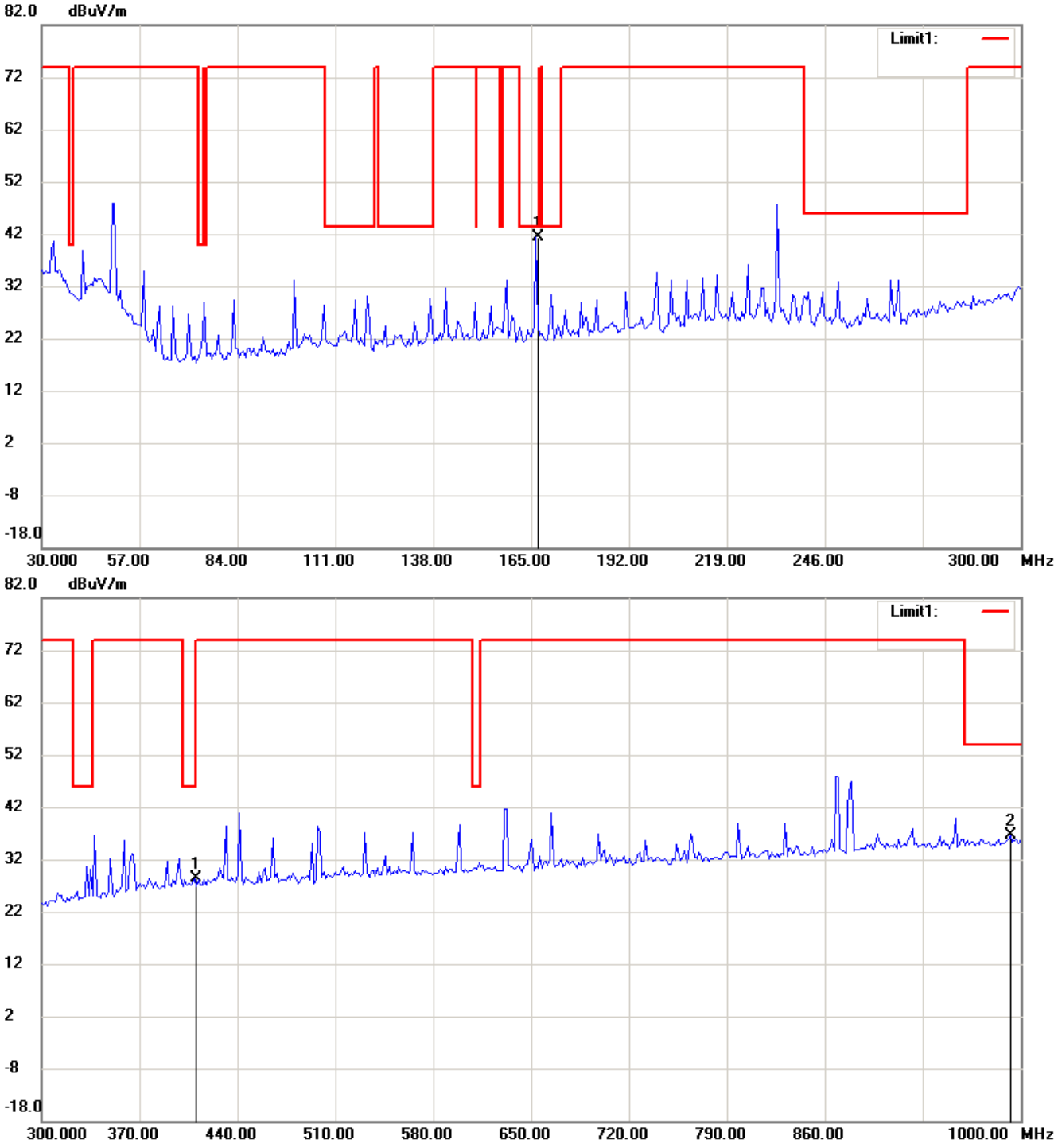




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

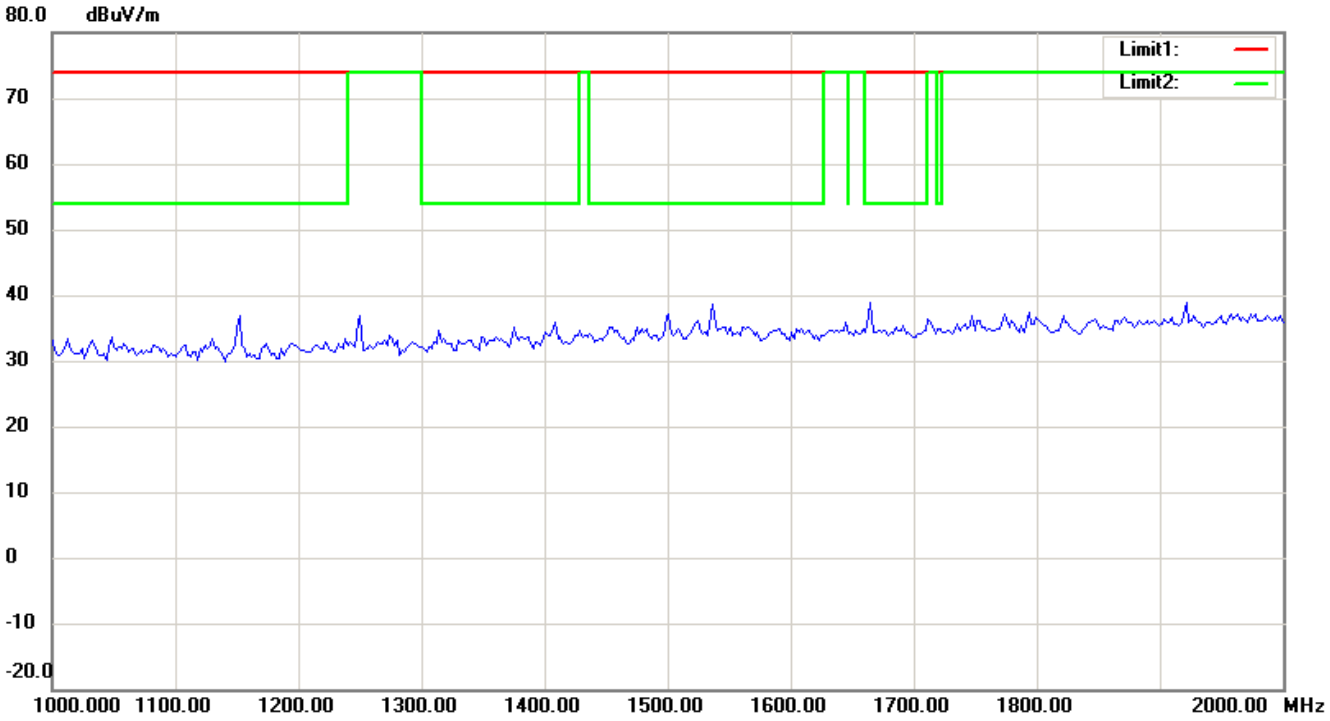
## Antenna Polarization V

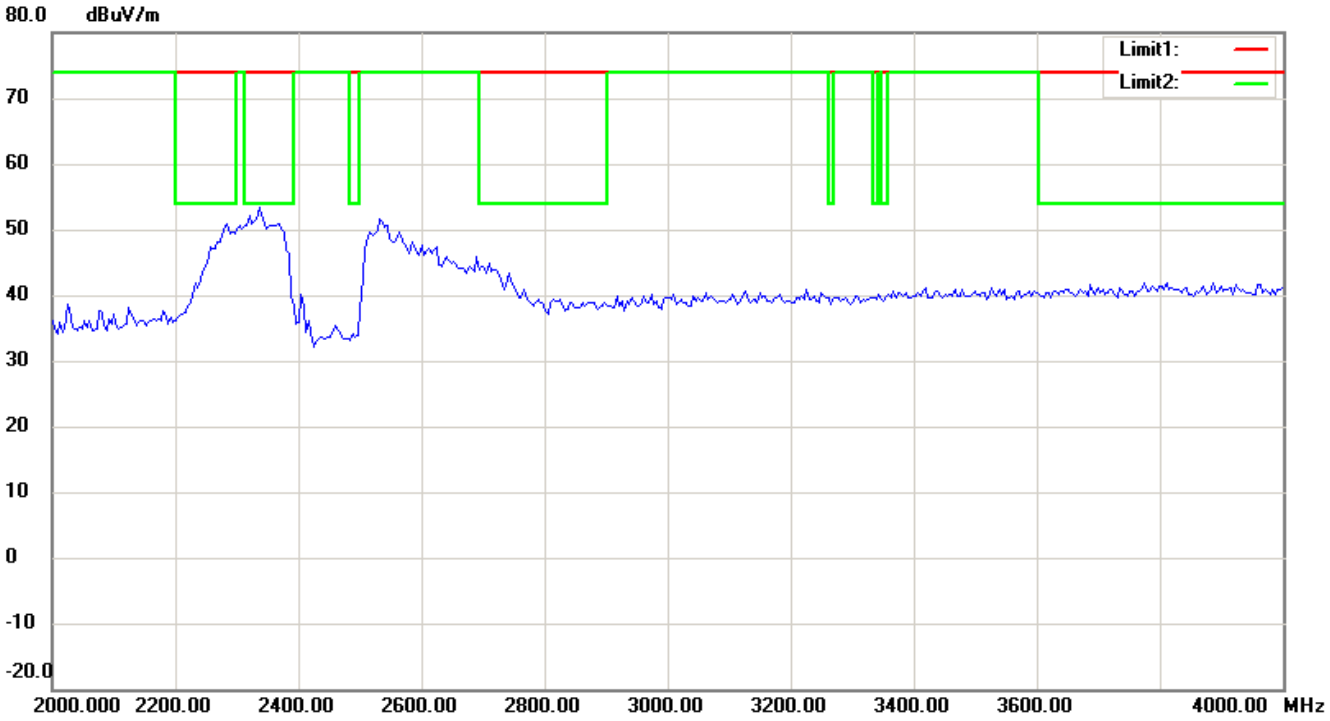



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

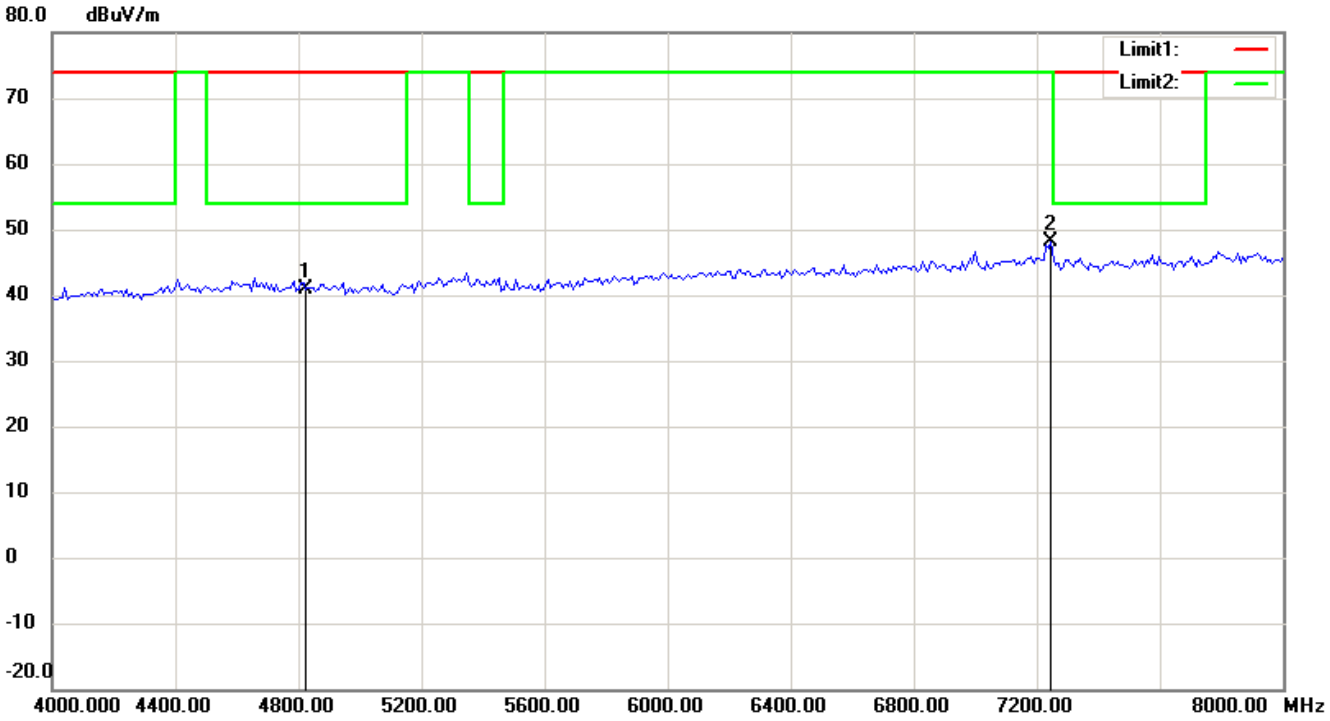


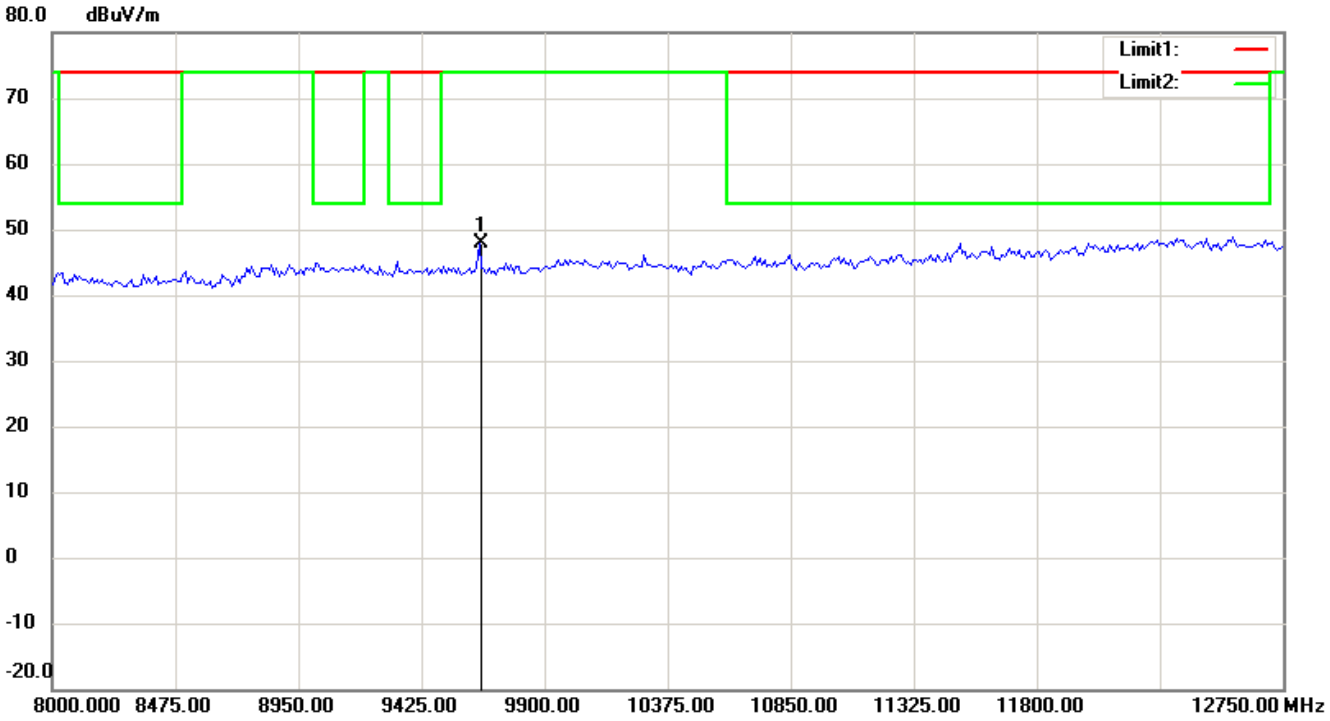




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

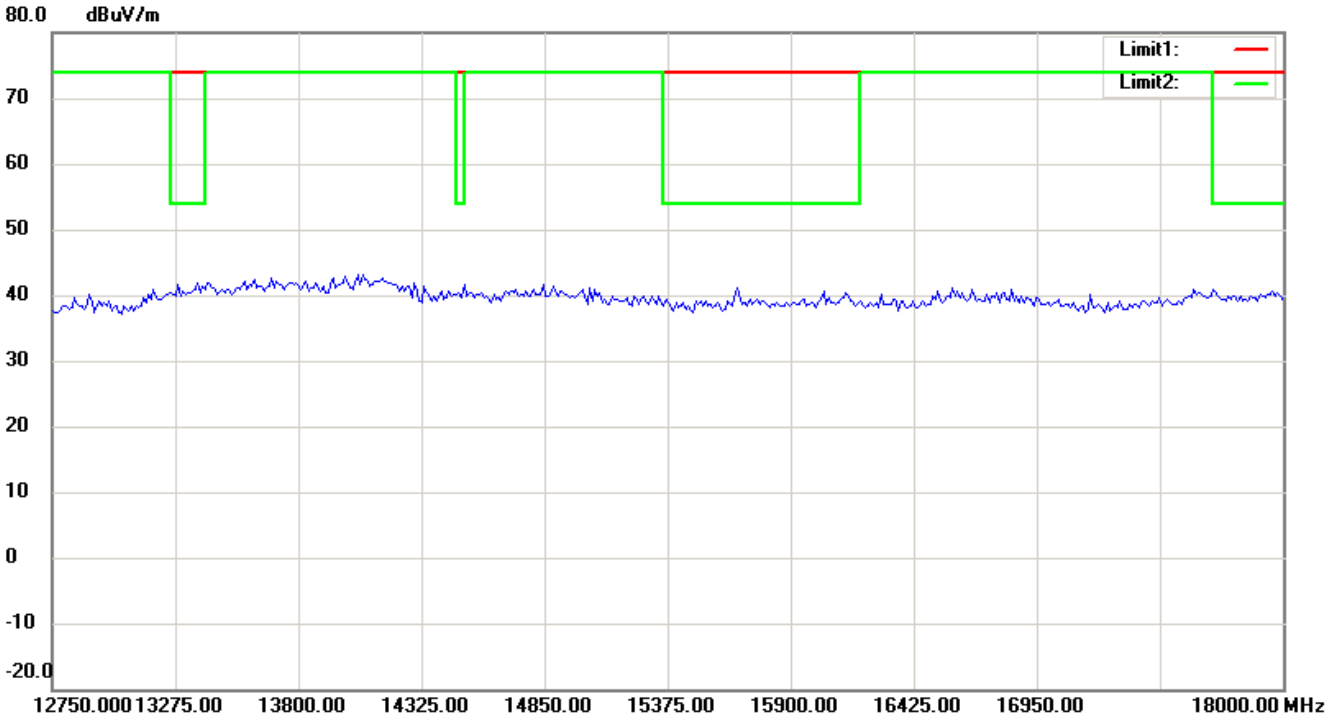


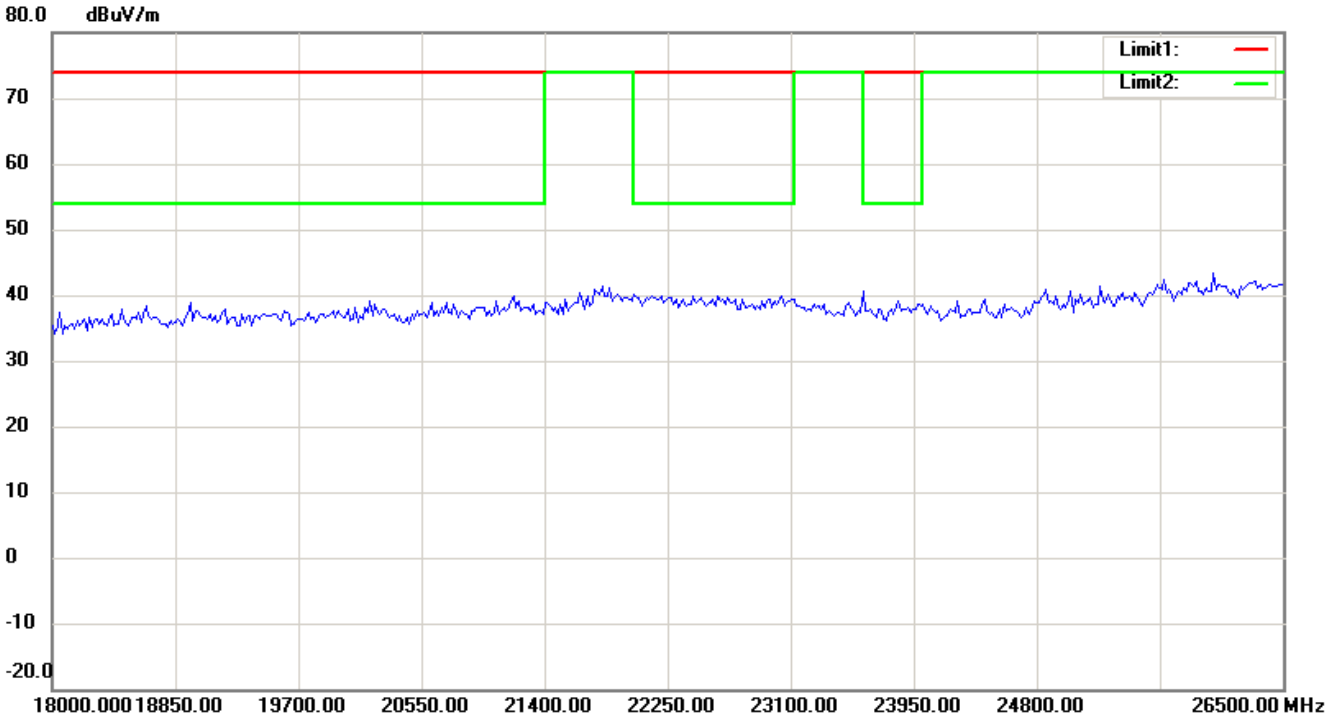




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



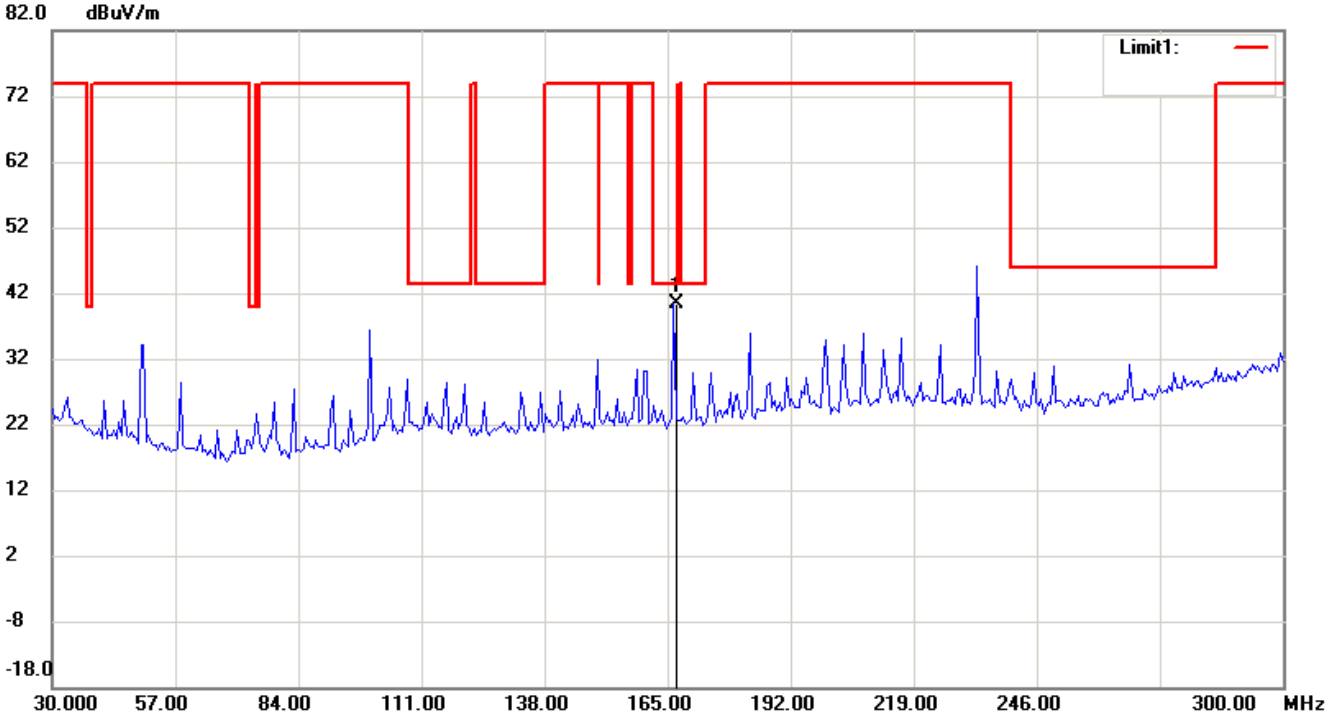



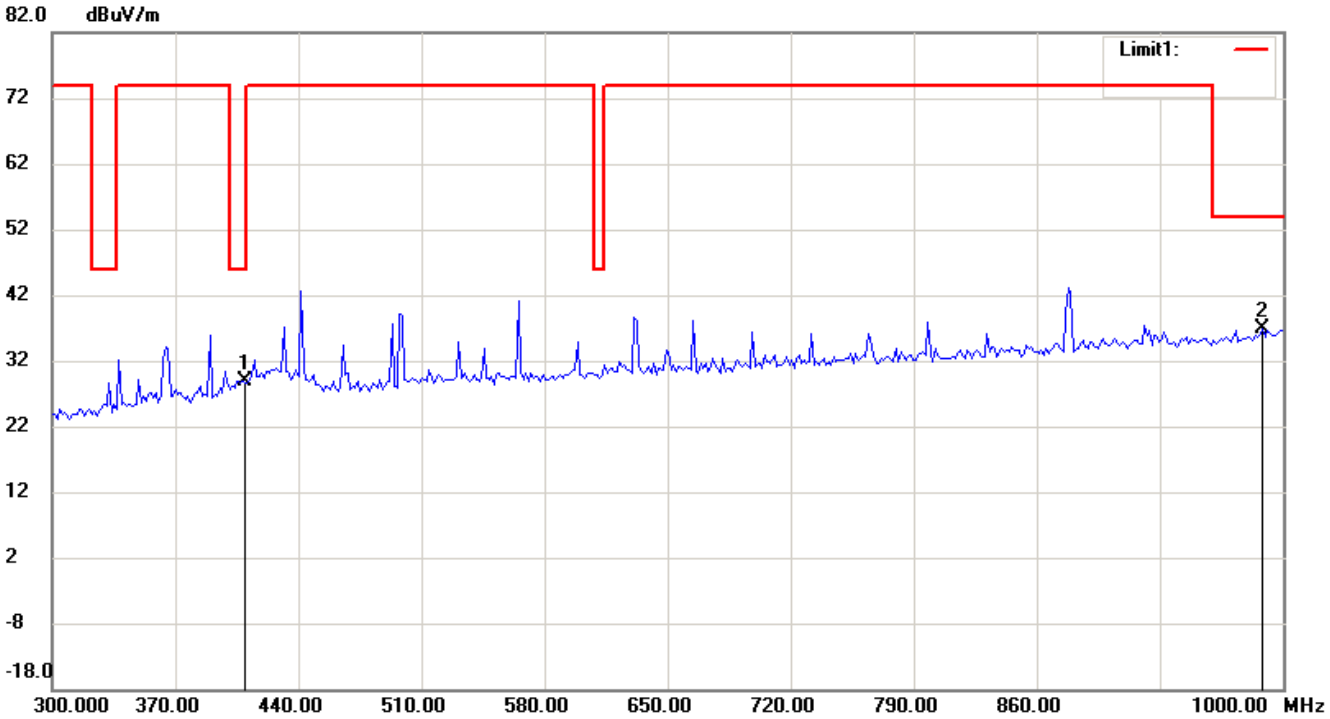

**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

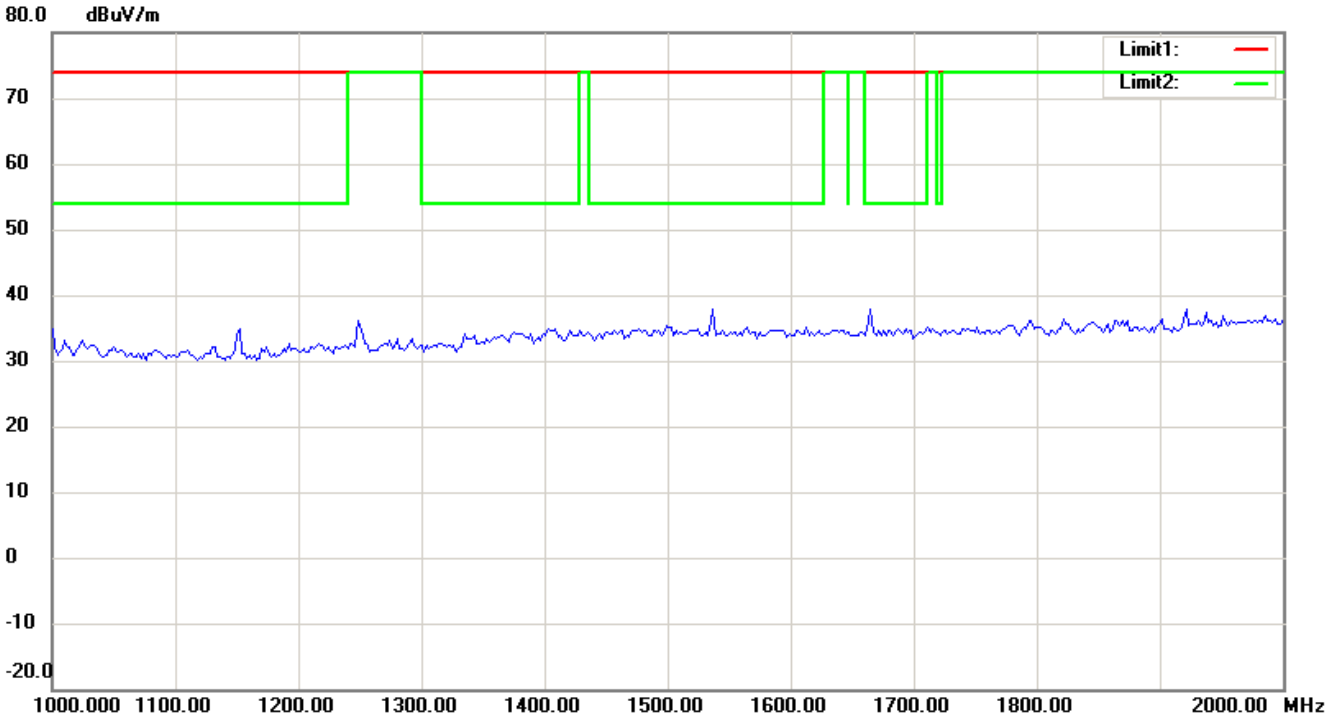
## Channel 6
## Antenna Polarization H

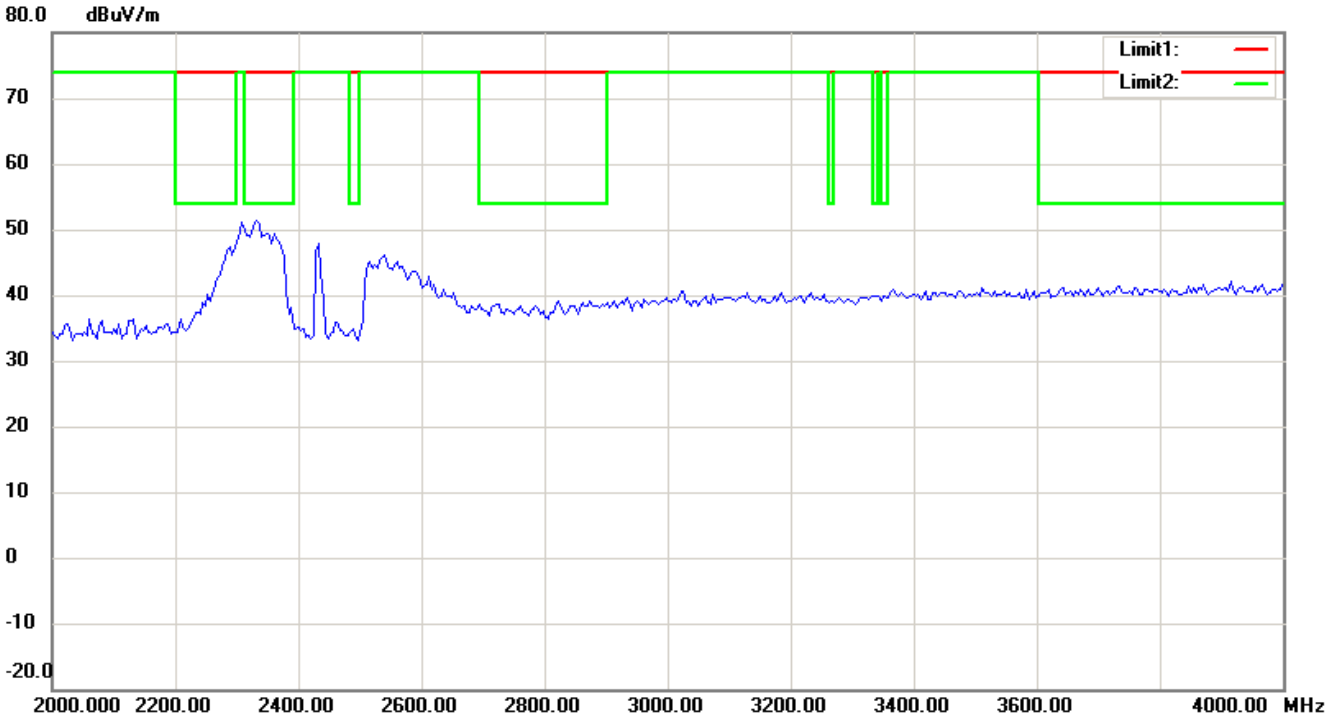



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**
**1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
**3. For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

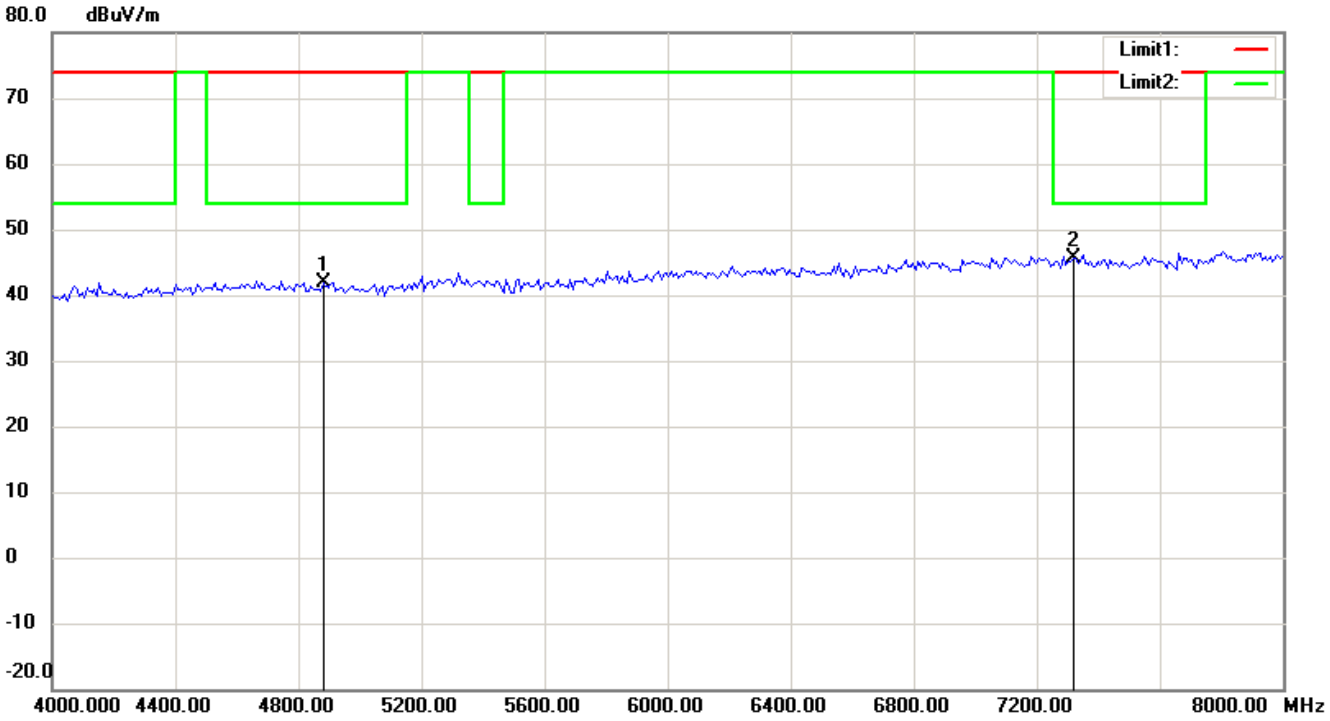


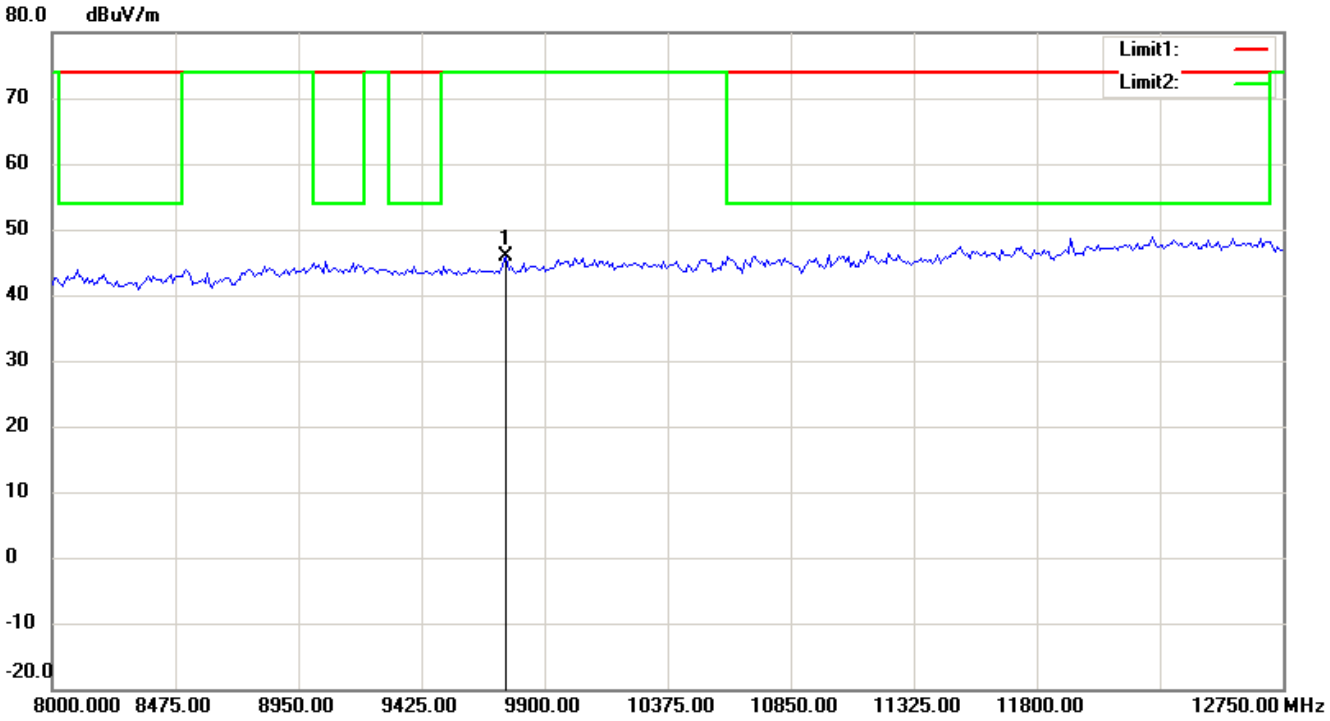




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

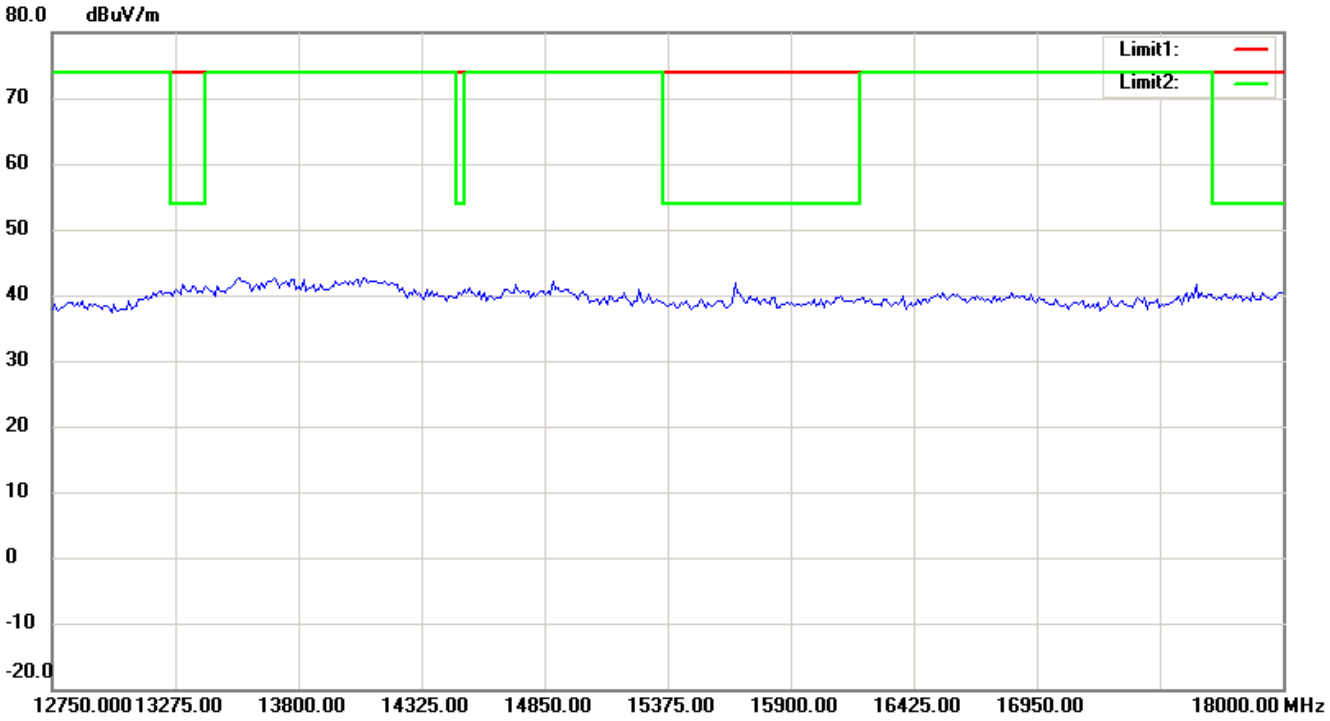


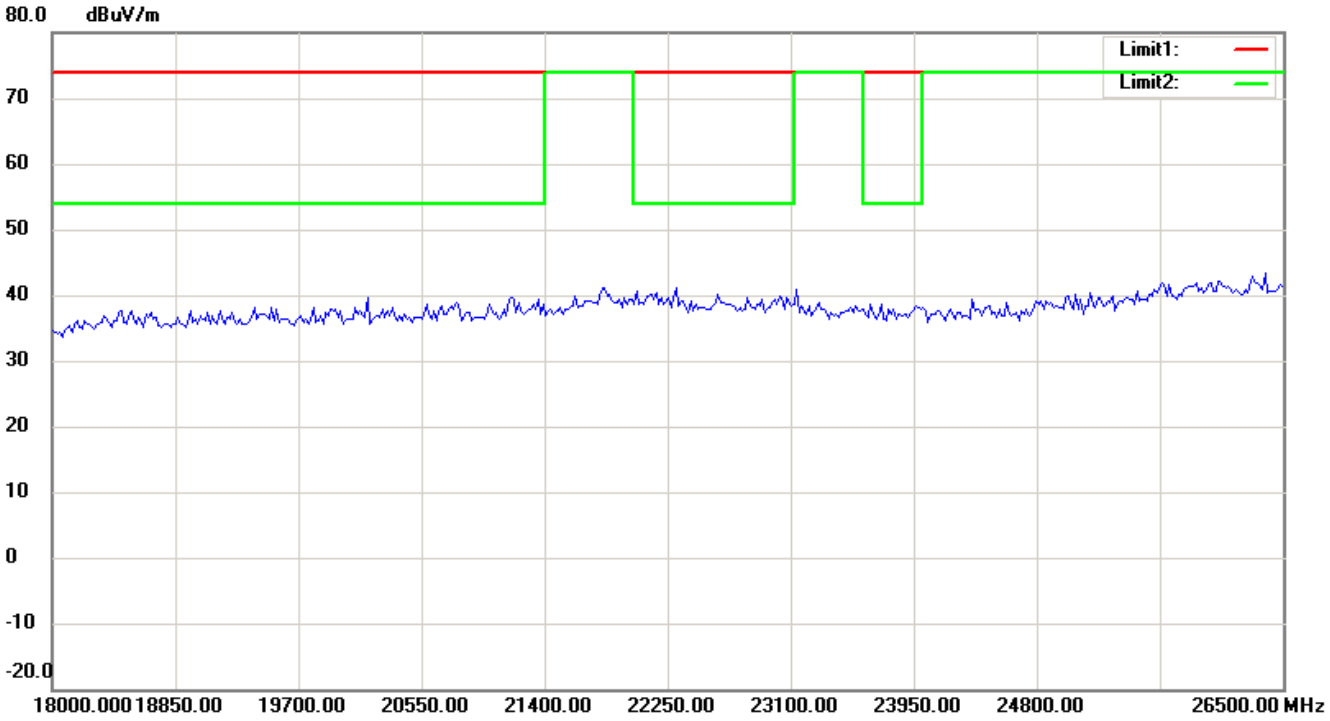




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



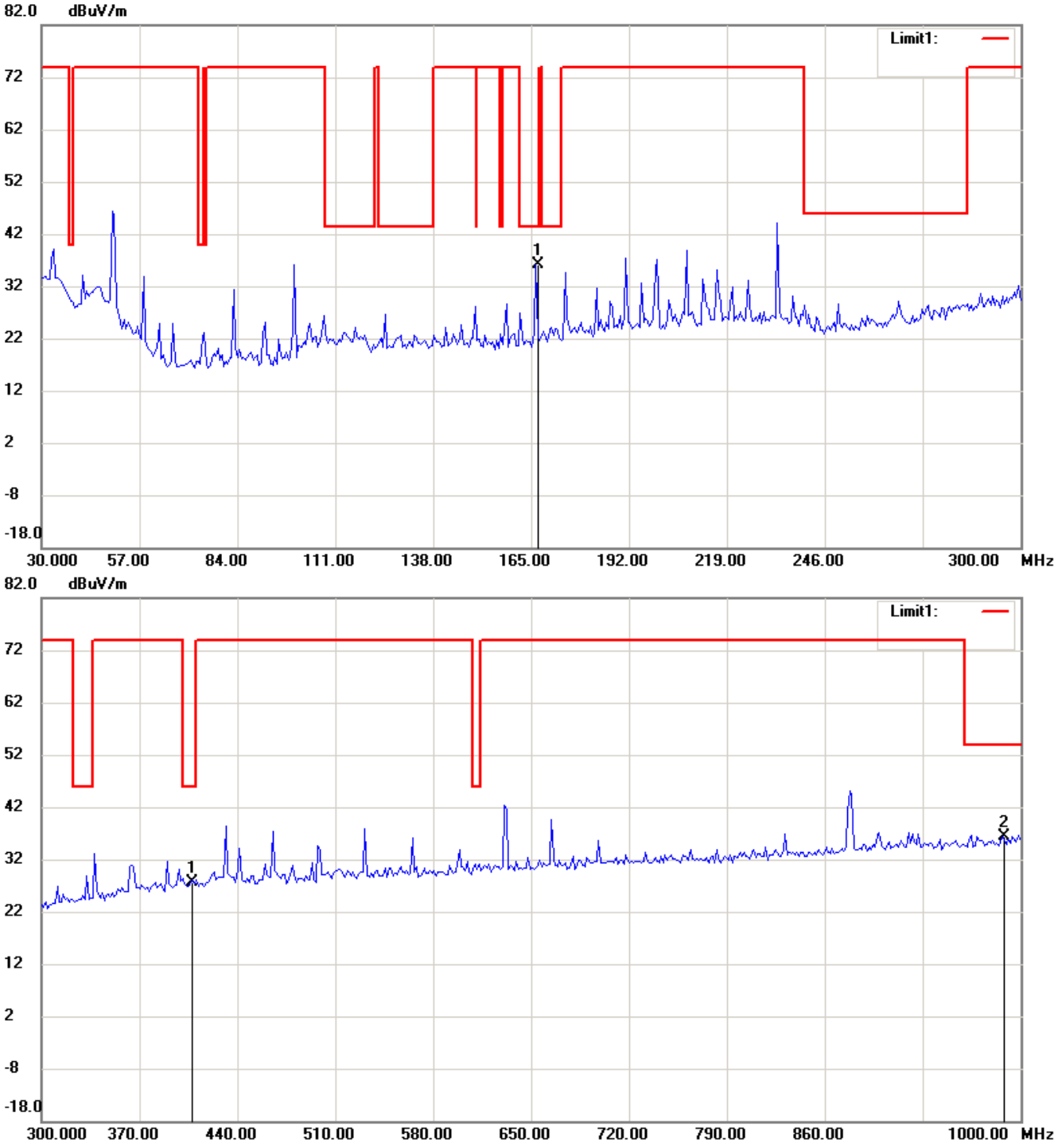




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

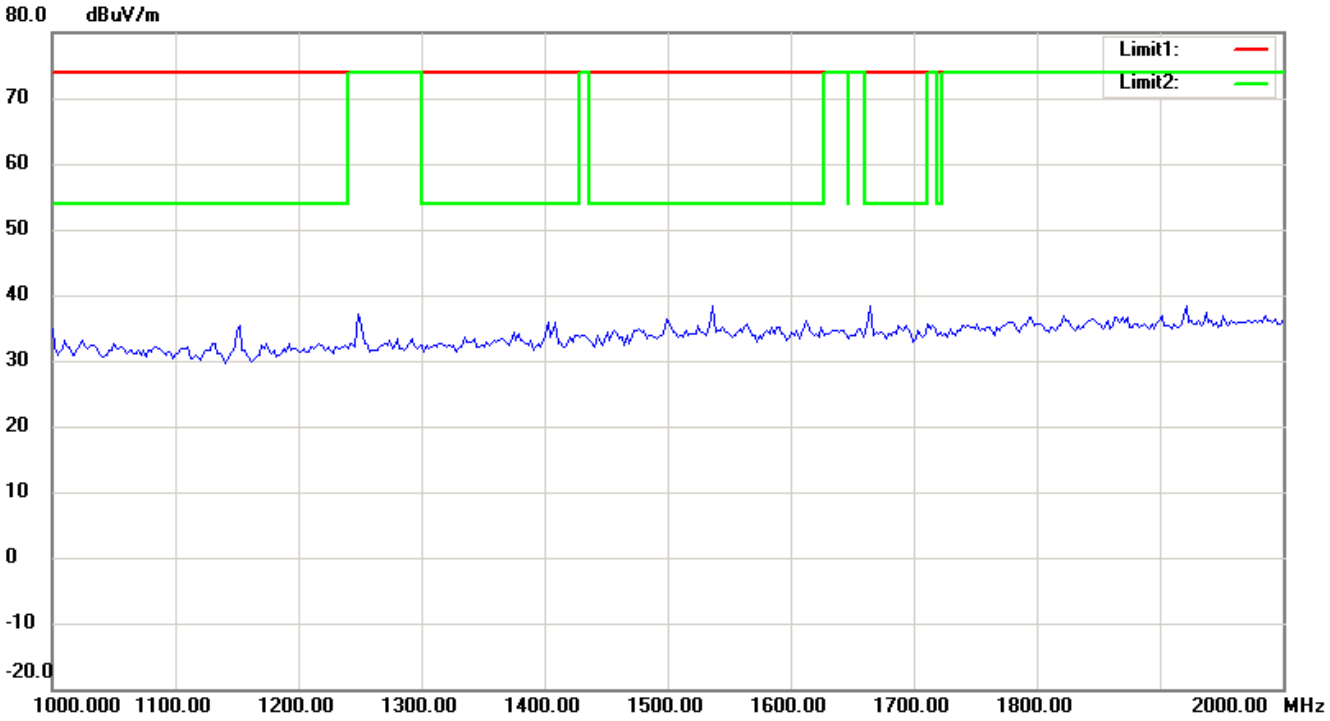
## Antenna Polarization V

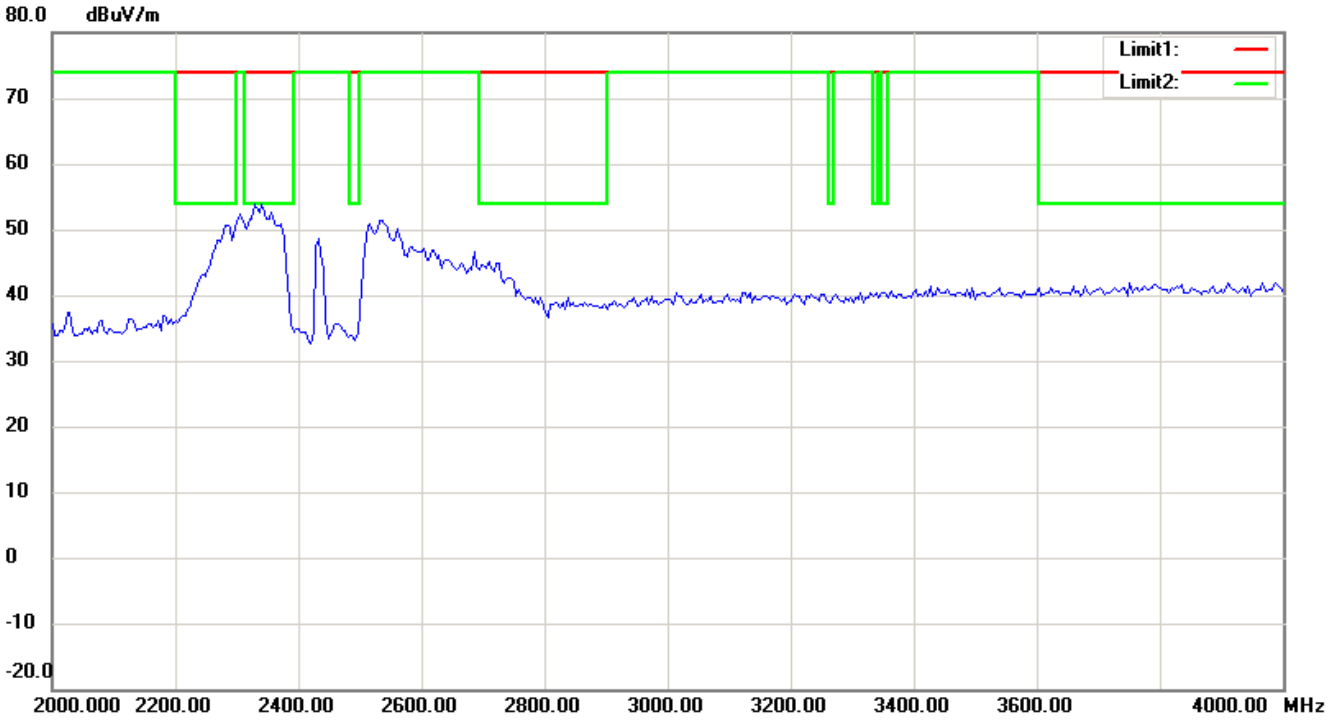



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

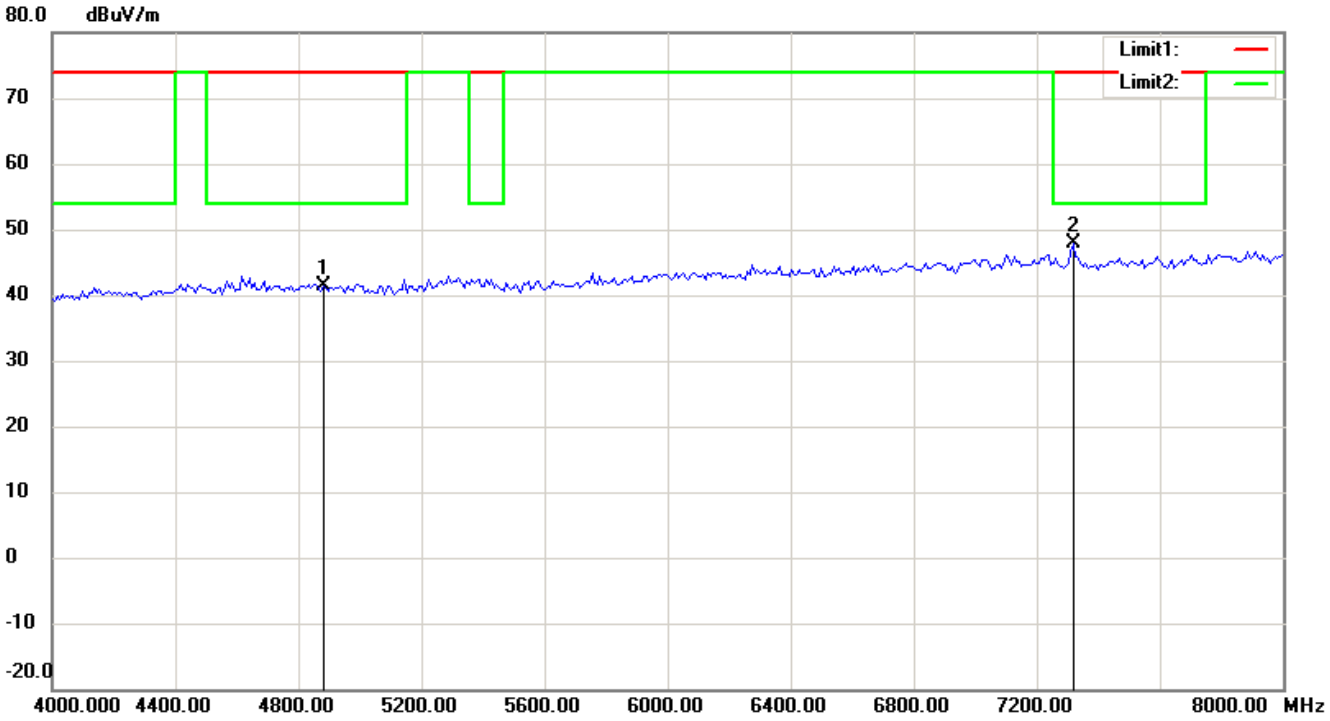


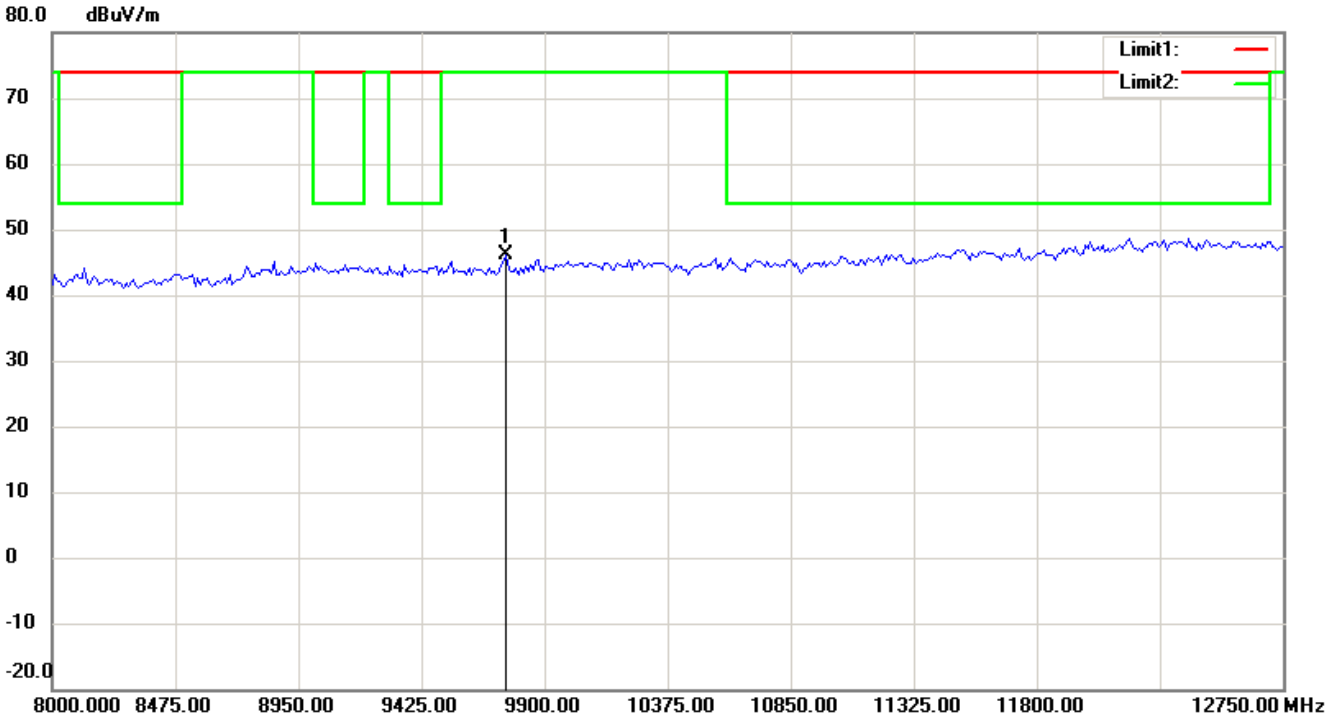




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

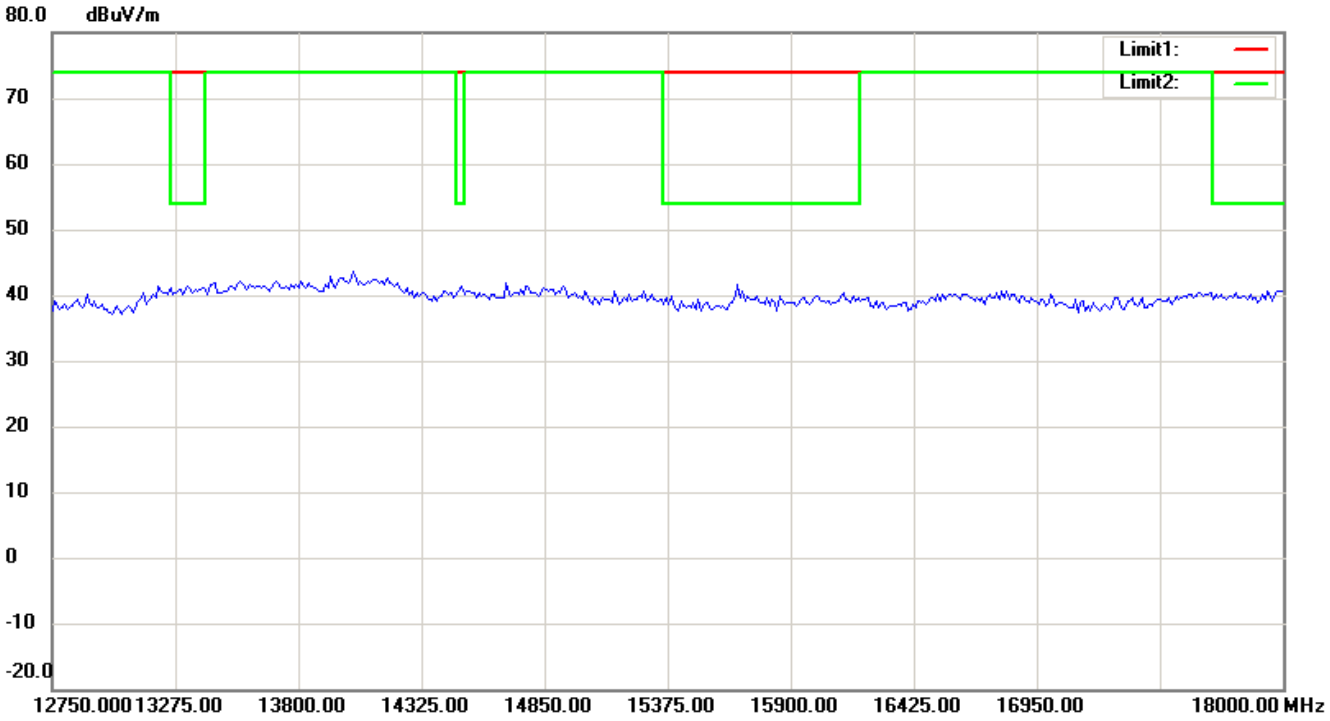


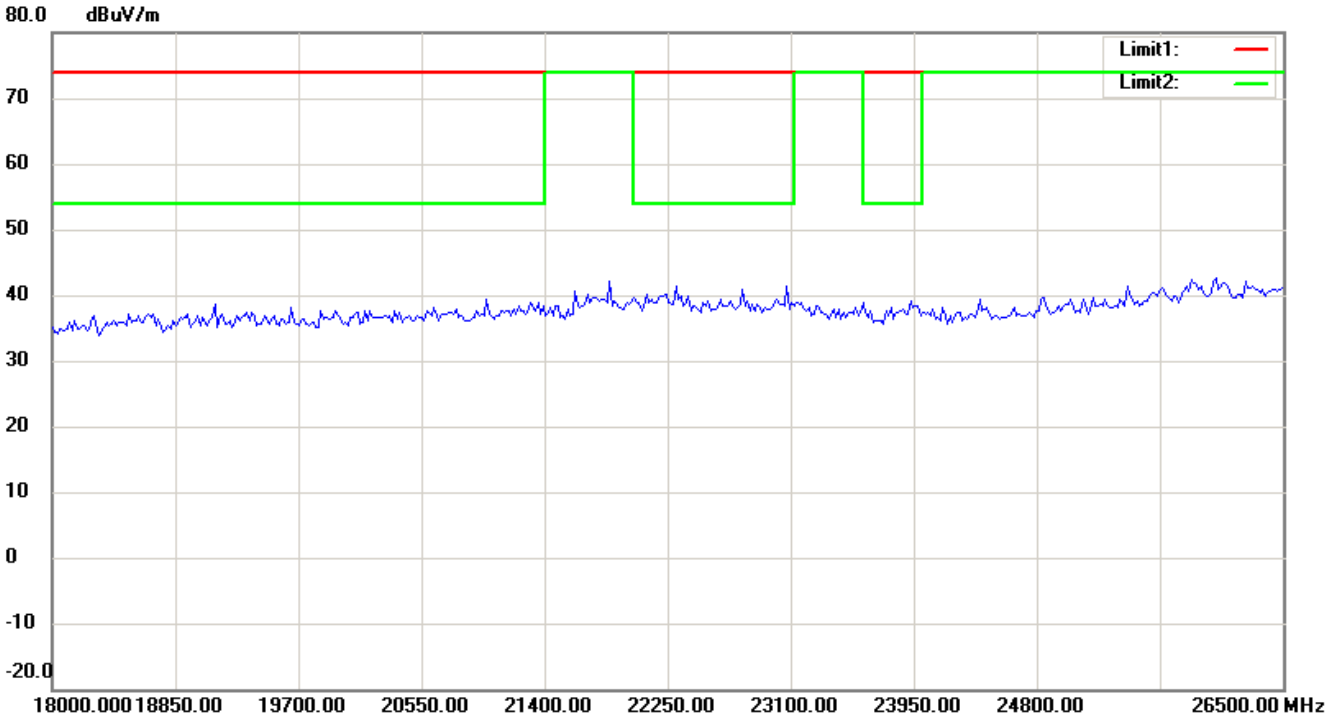




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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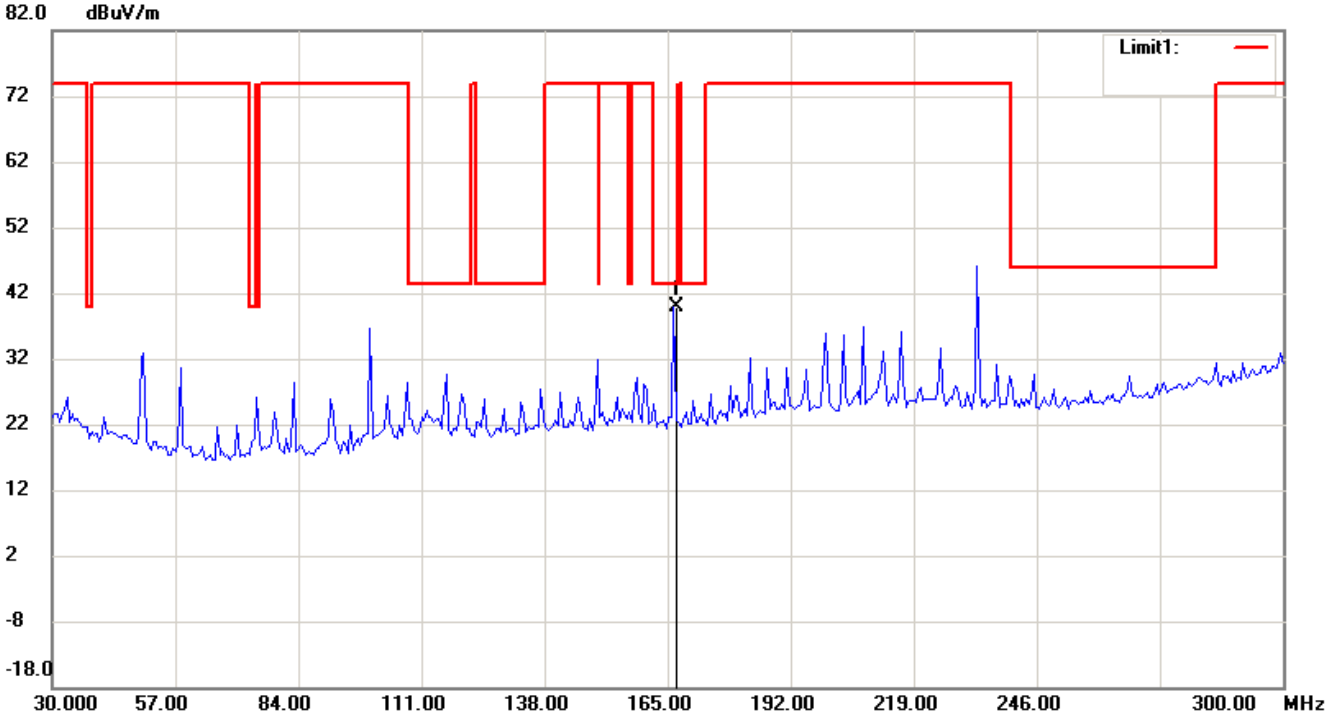
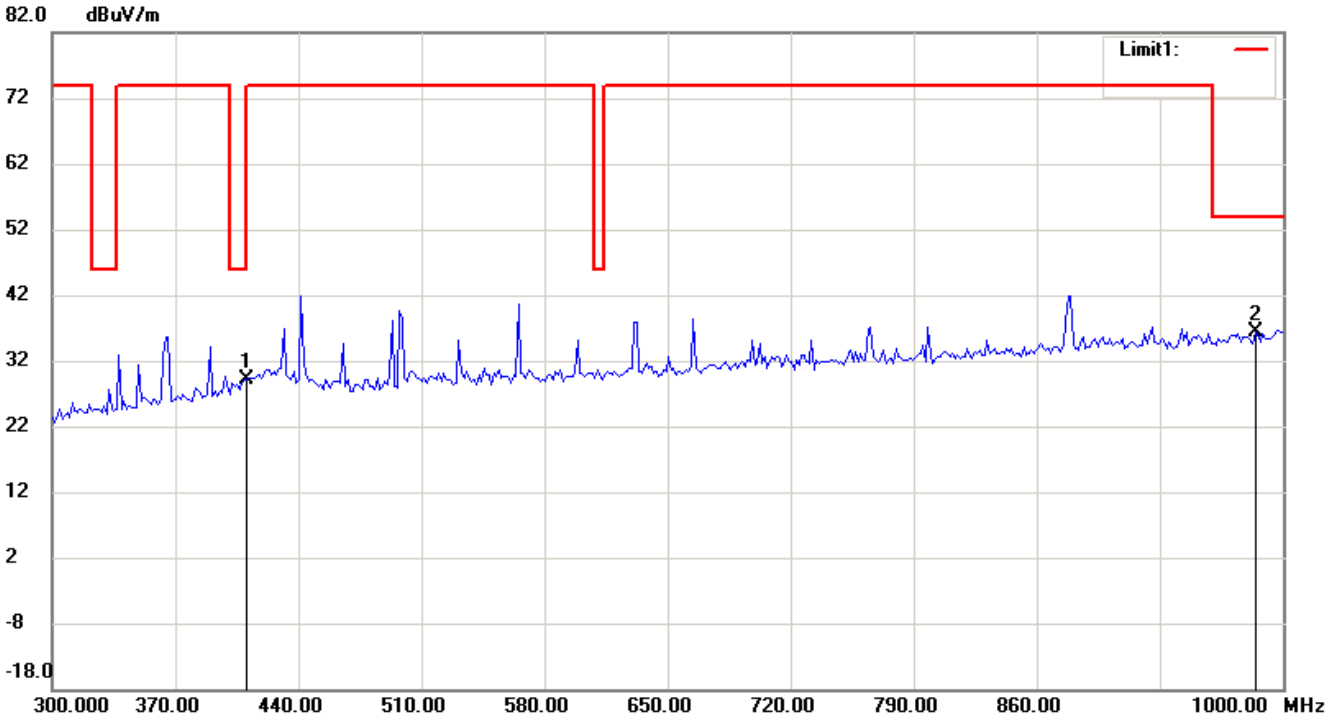
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

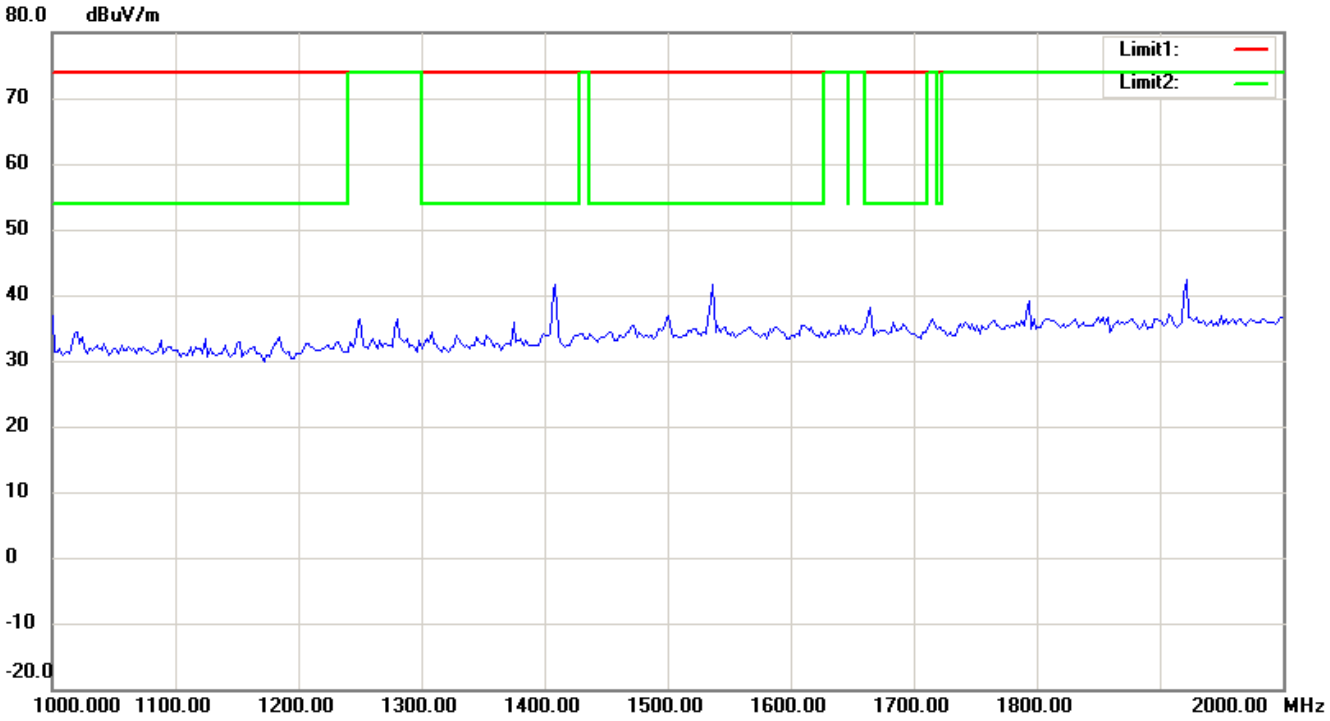
Channel 11
Antenna Polarization H

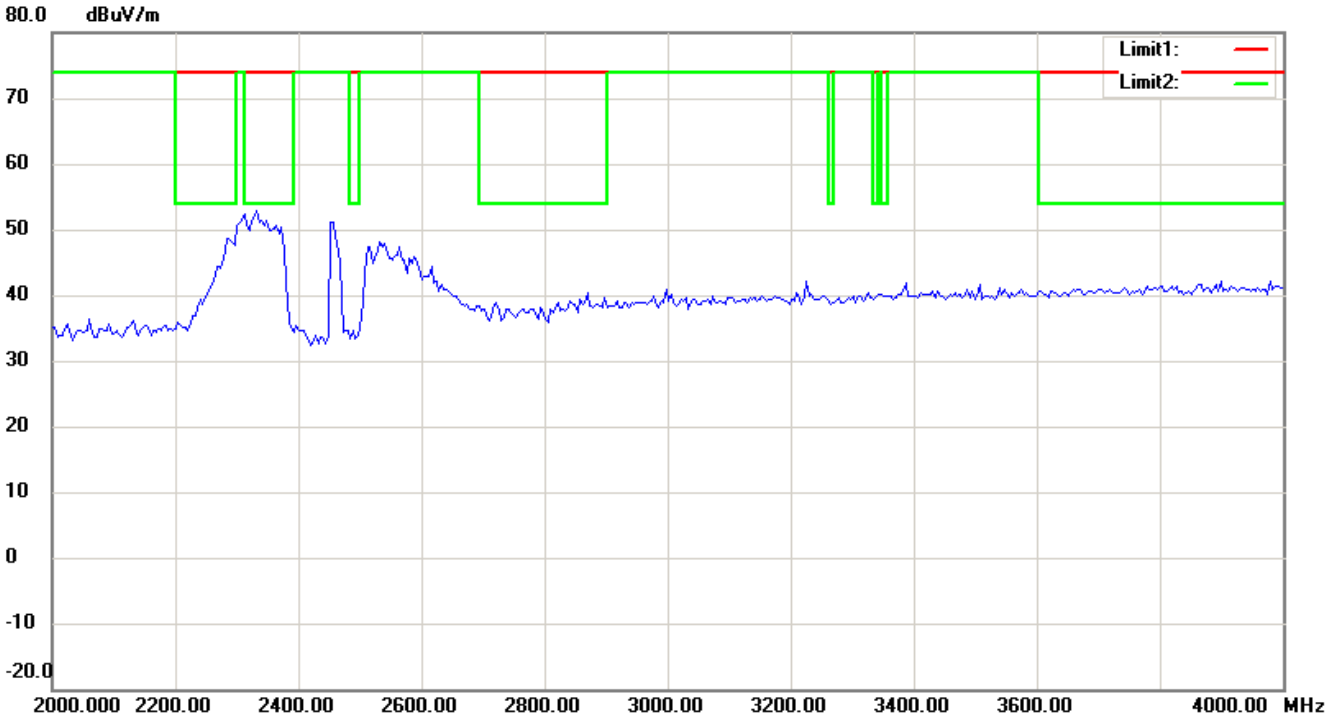



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**
**1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
**3. For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
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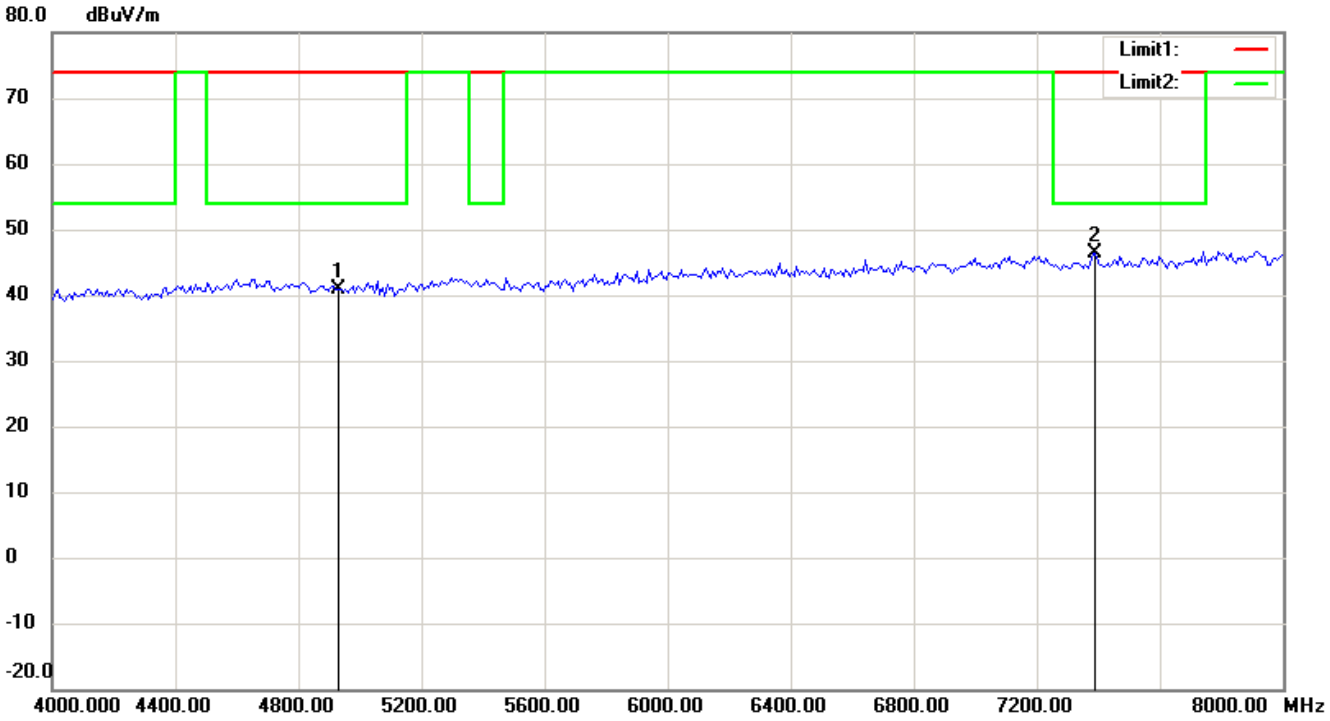
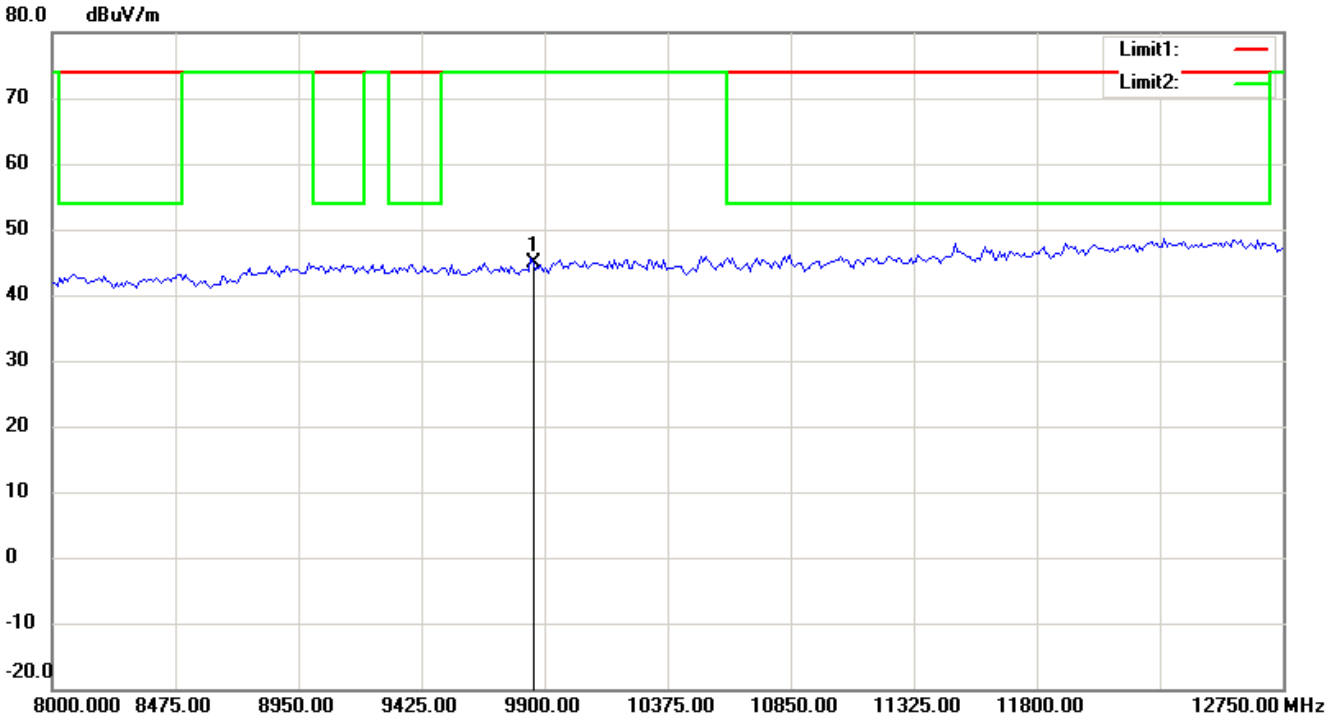
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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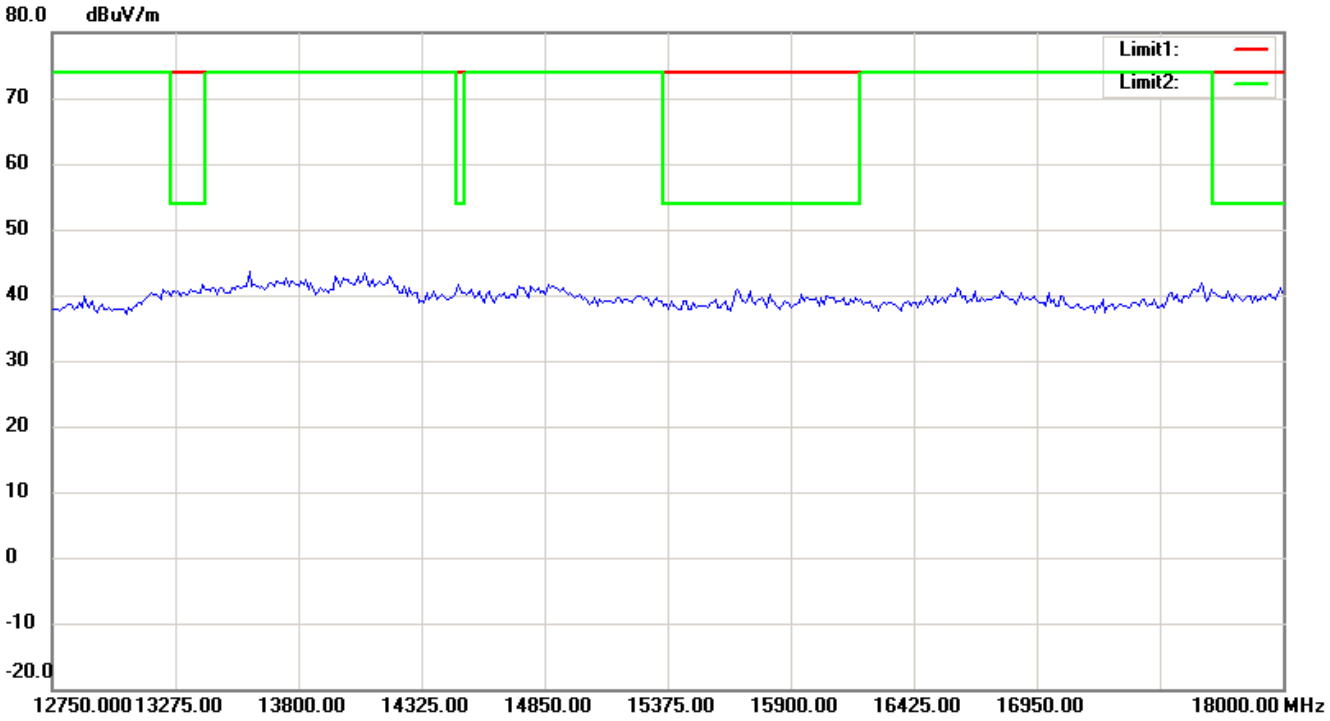
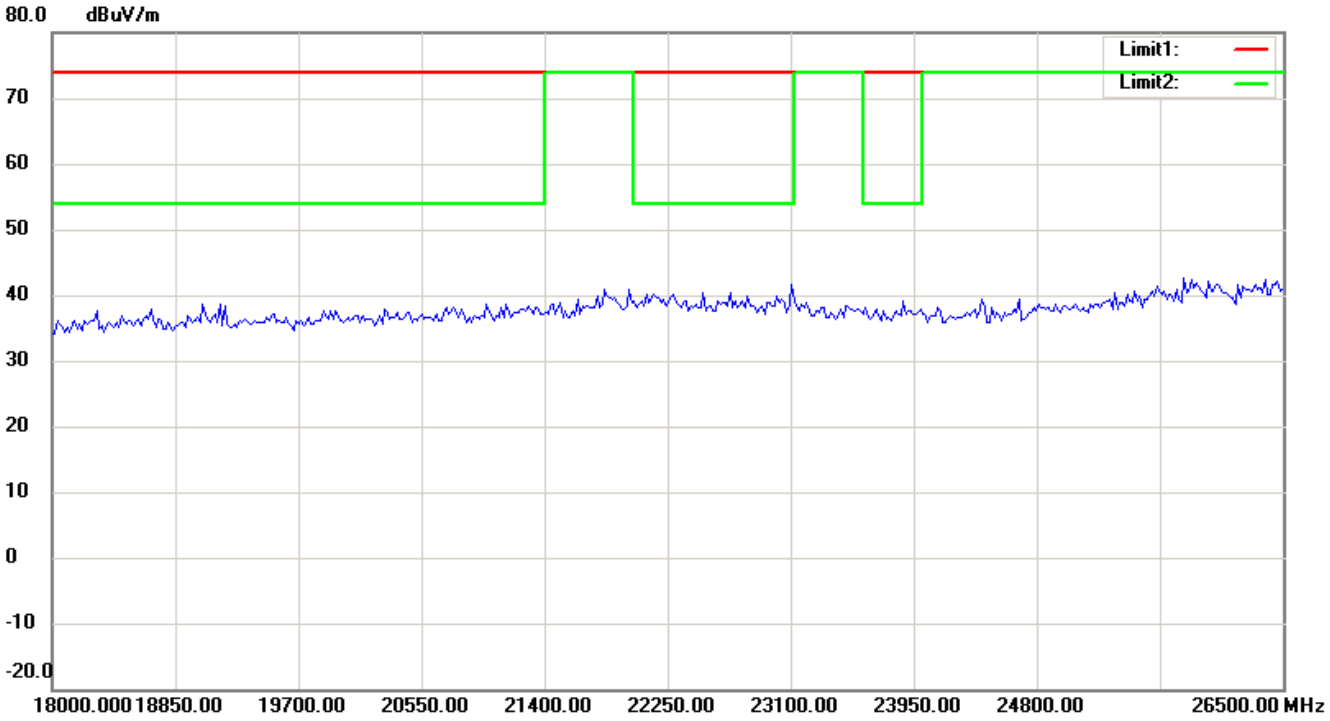
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



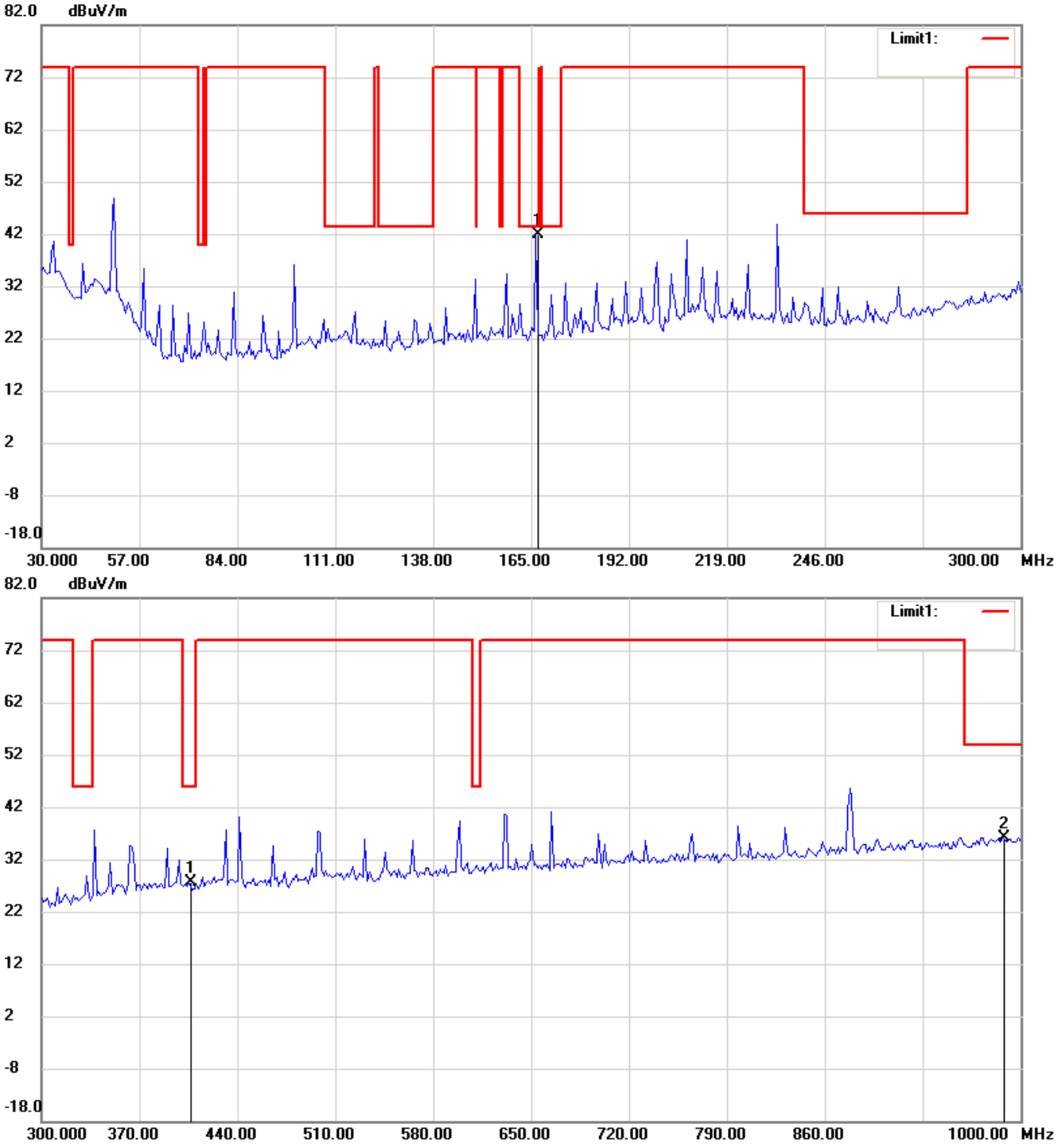




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

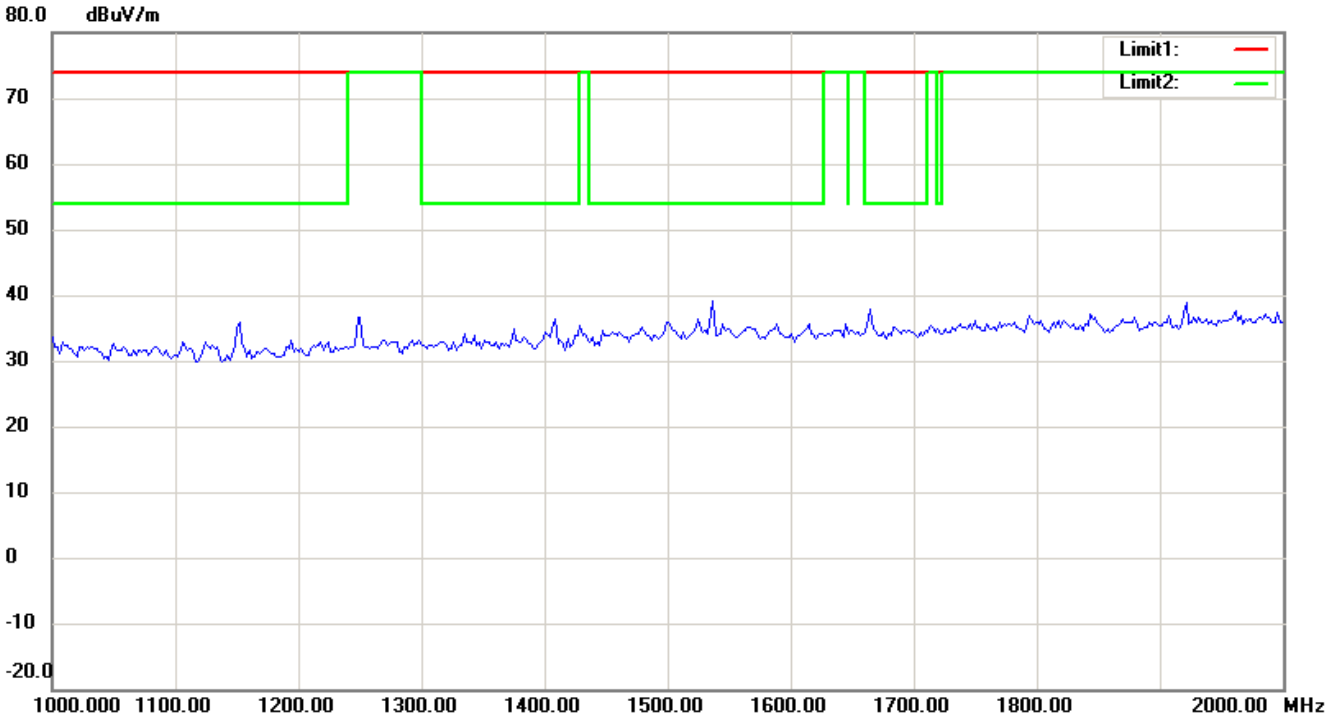
## Antenna Polarization V

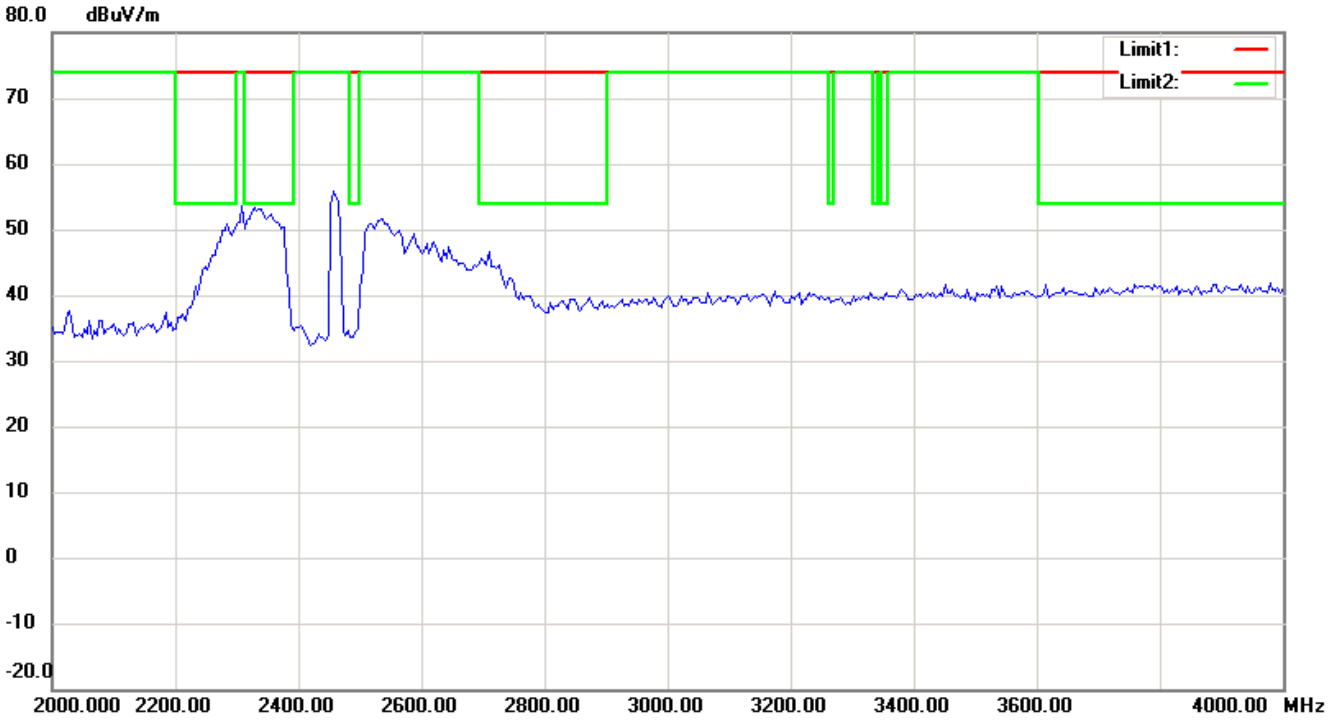



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

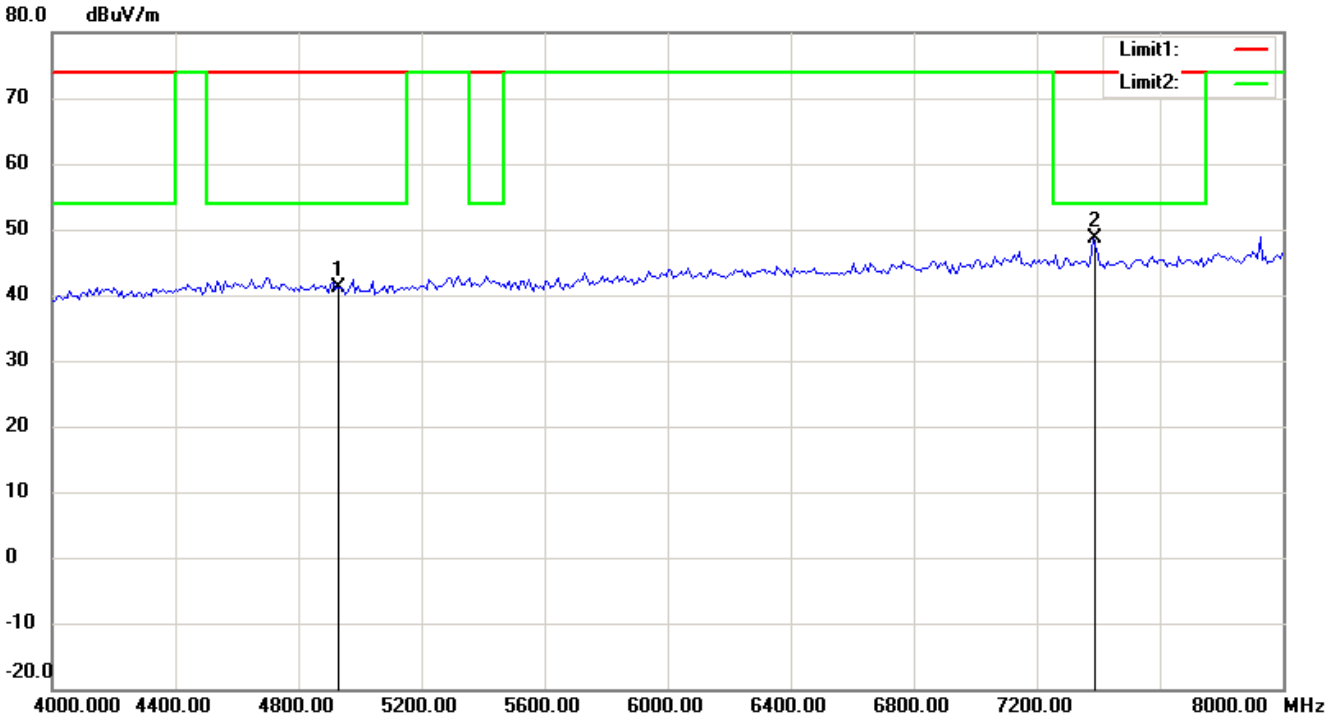


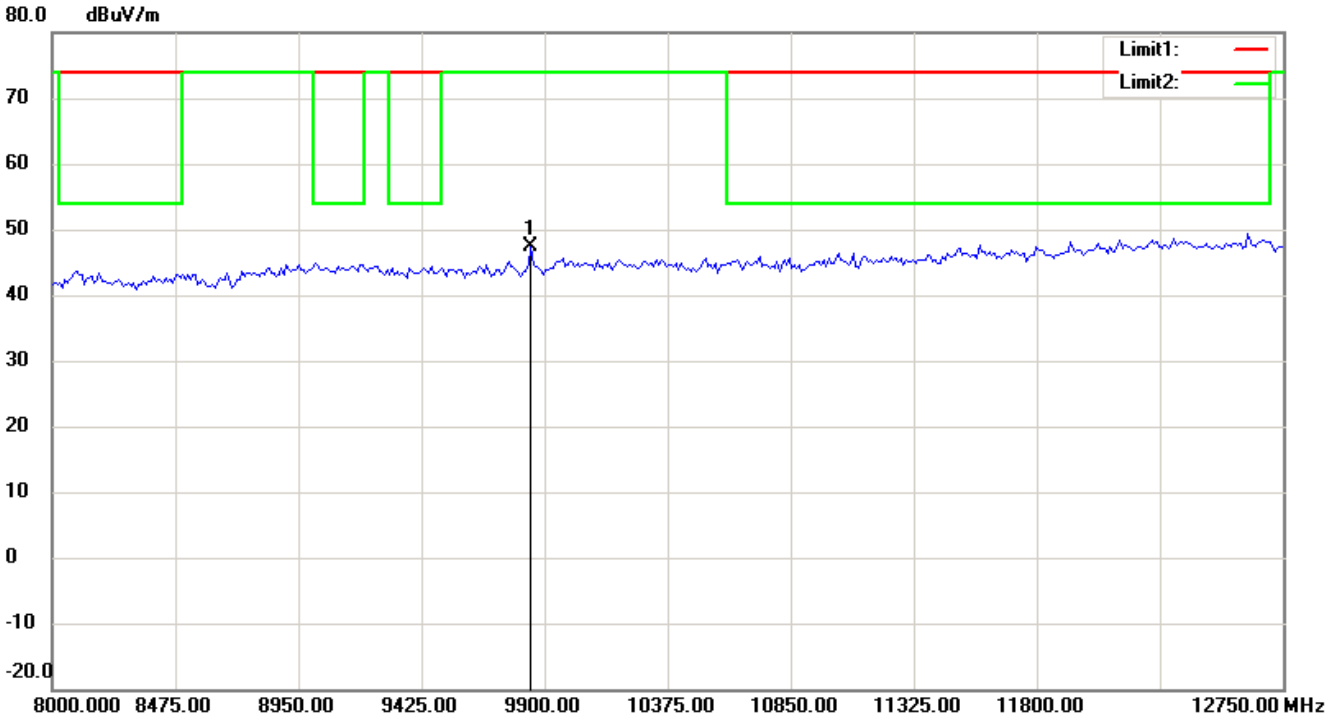




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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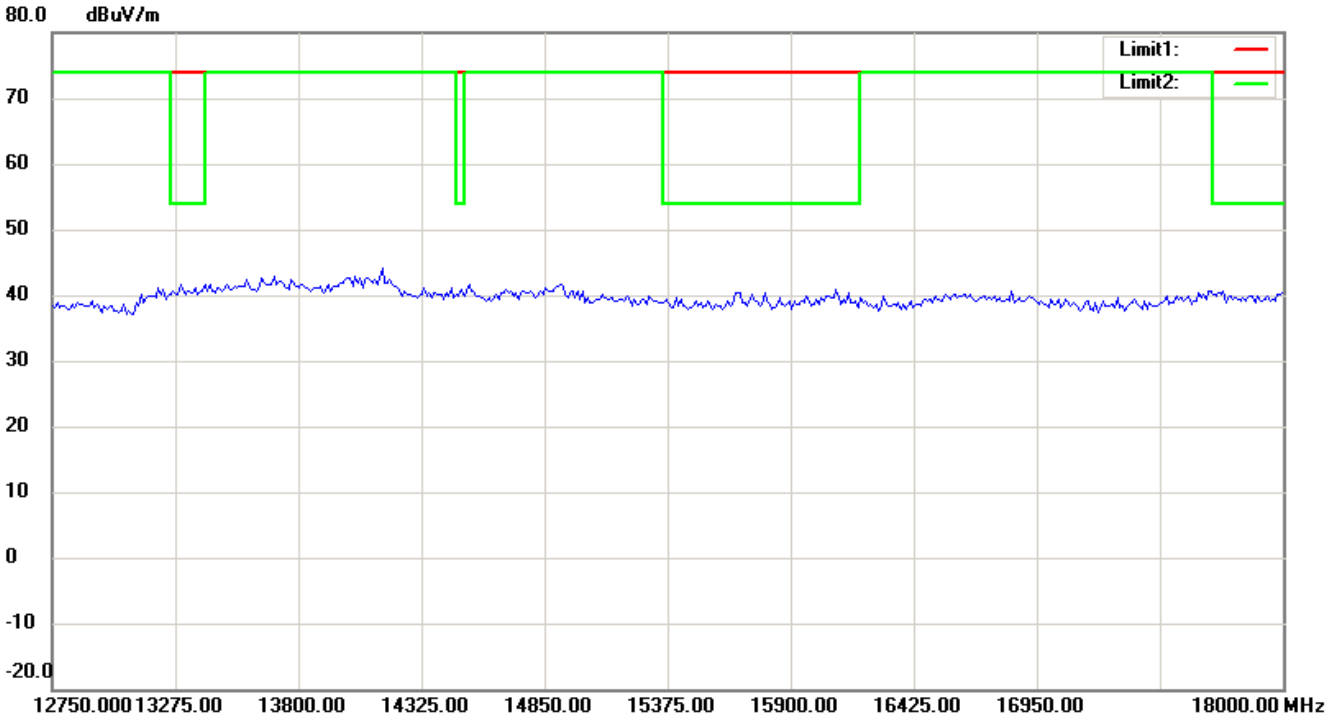
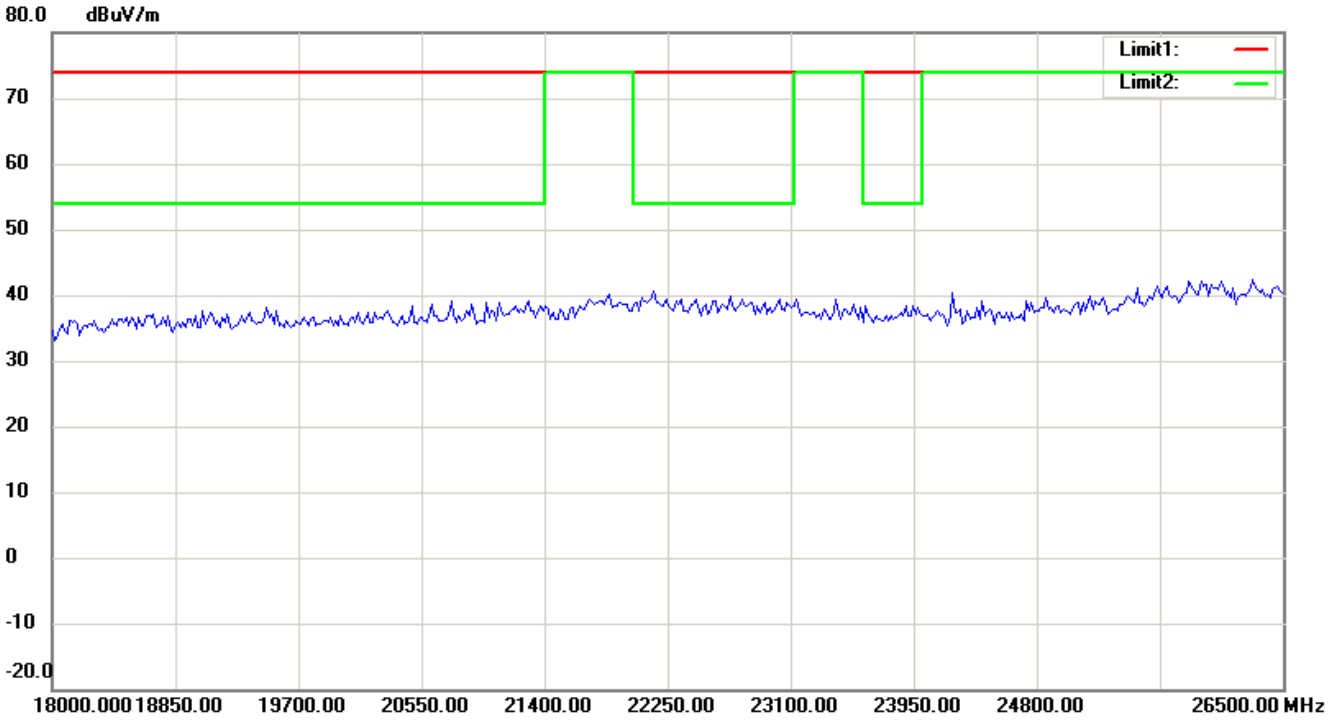
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



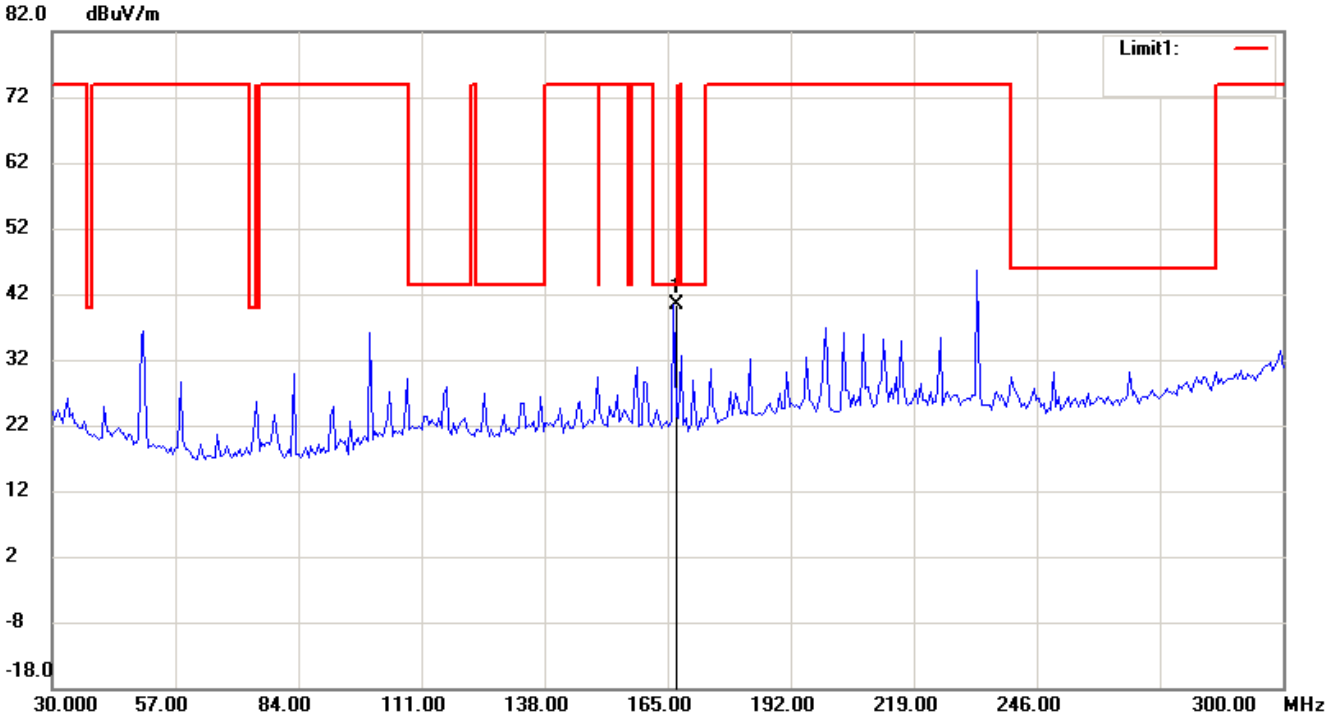



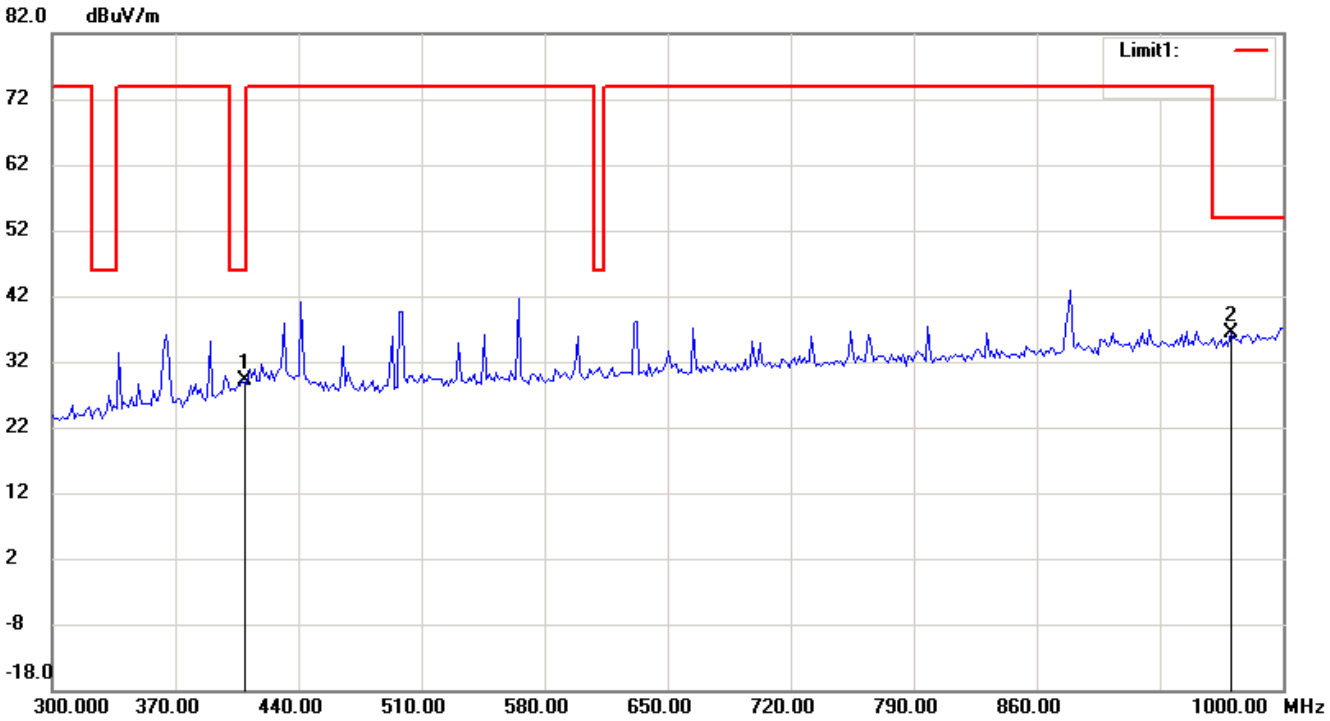

**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

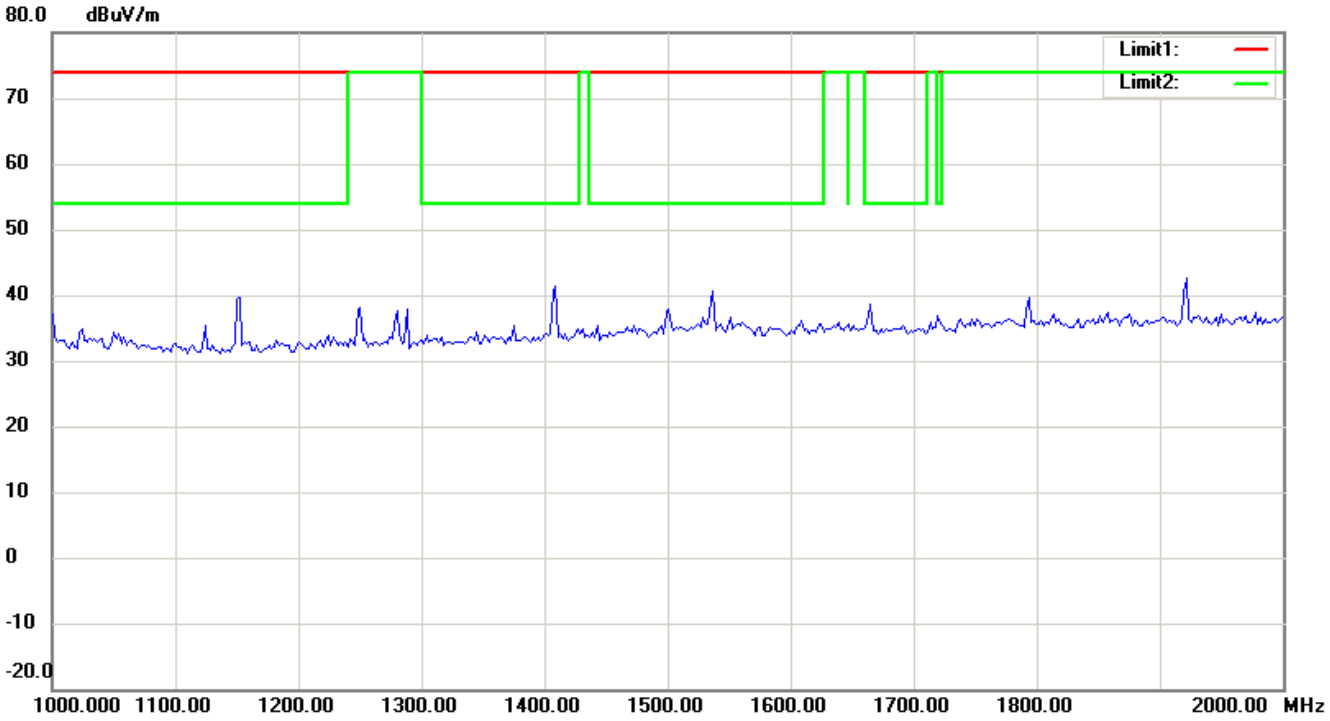
802.11n
Channel 1
Antenna Polarization H

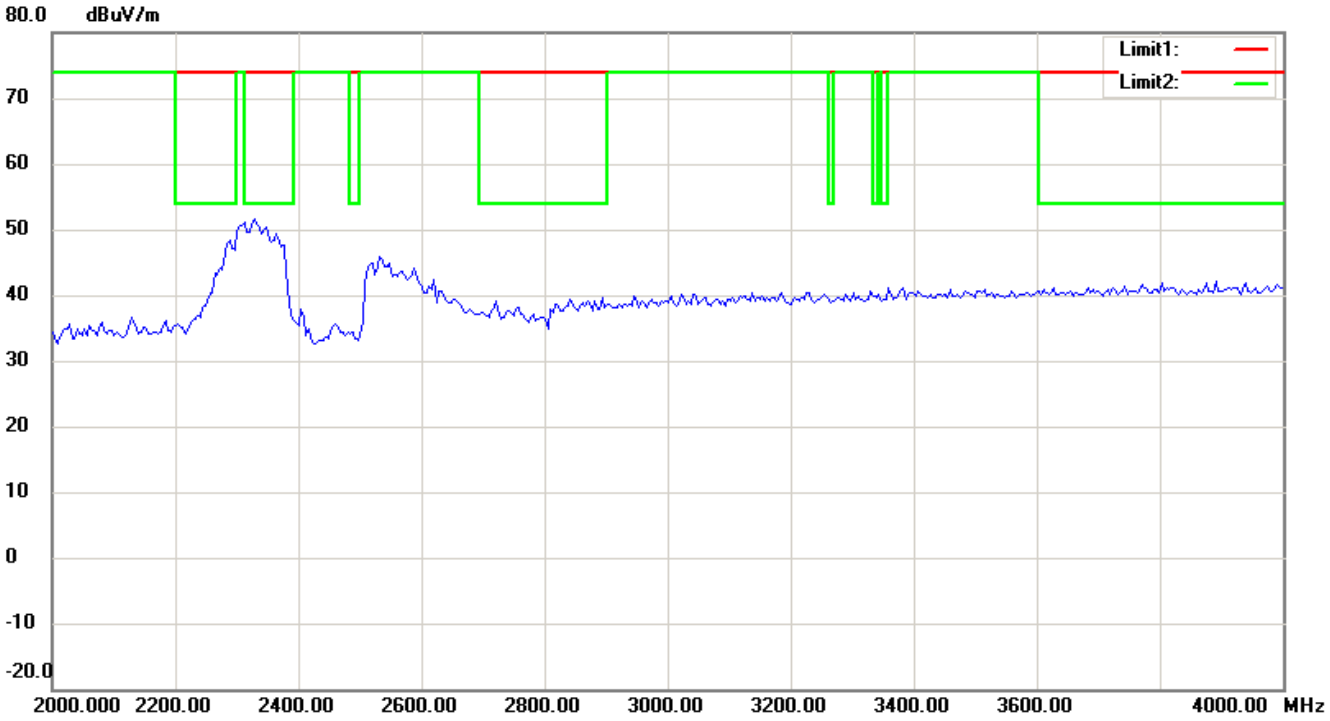



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**
**1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
**3. For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

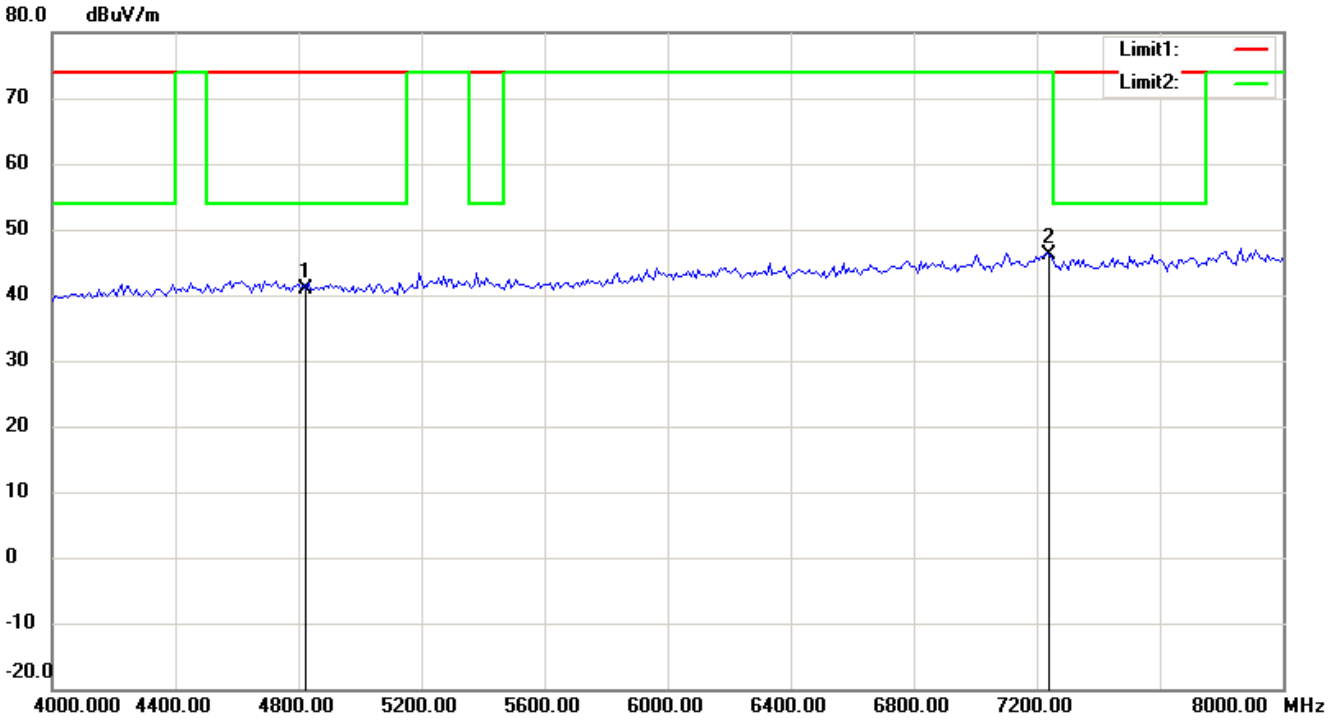


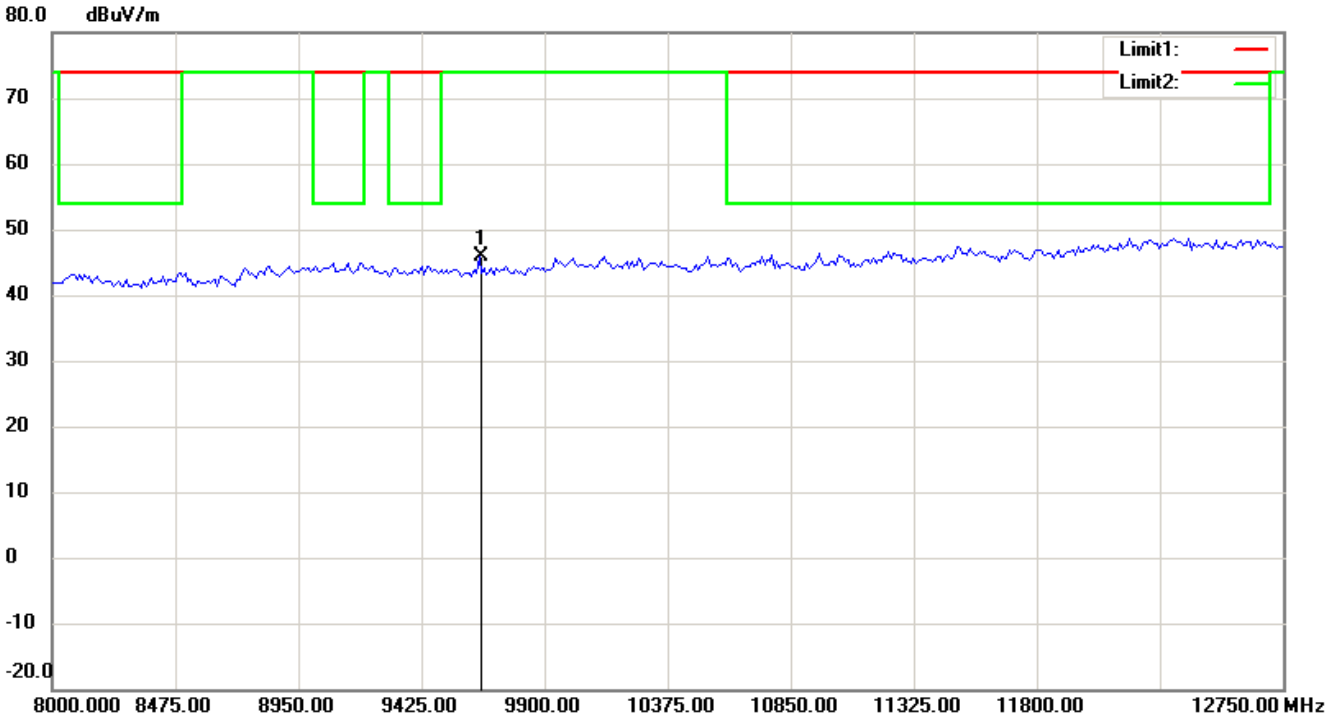




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
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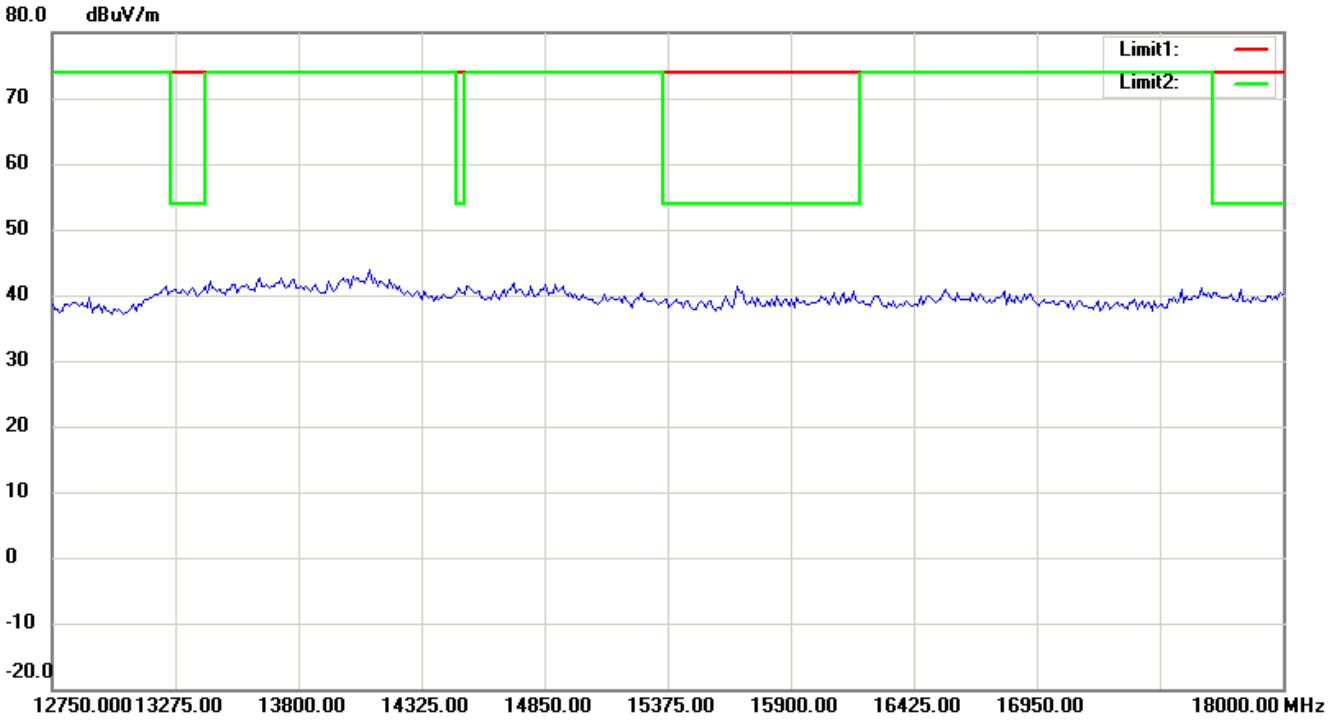


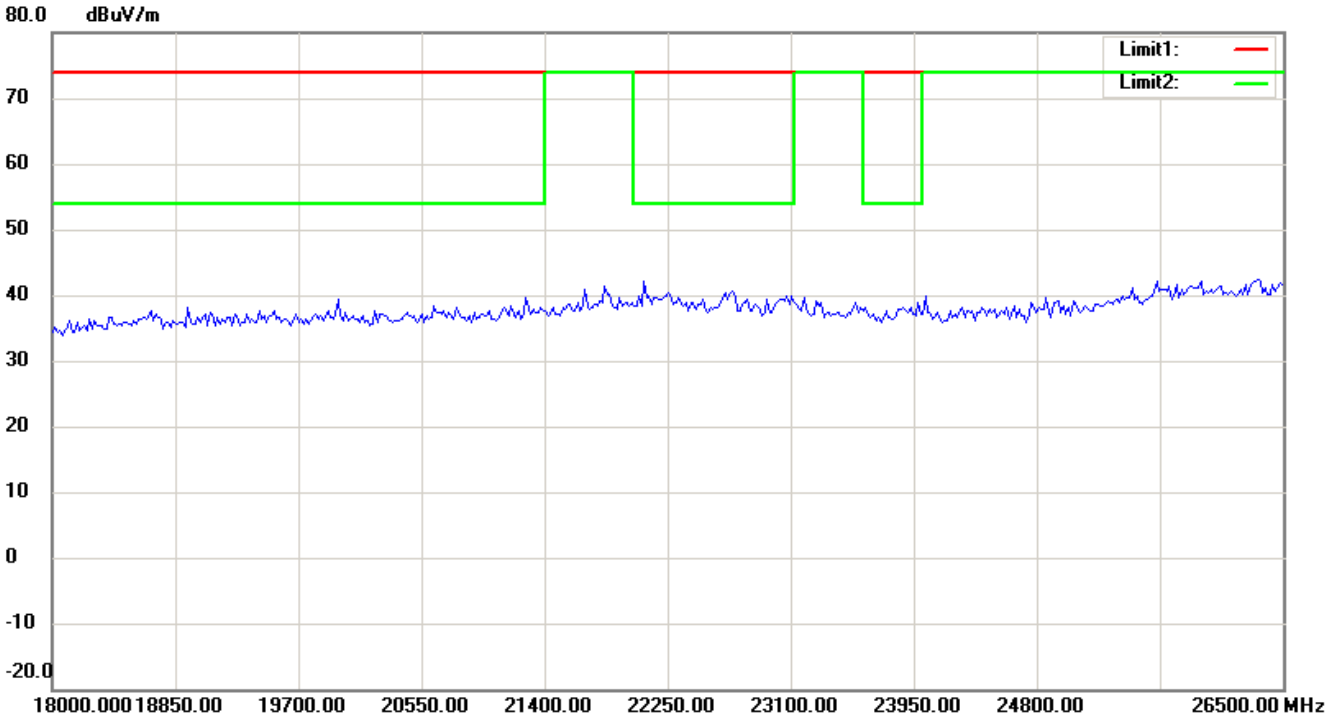


**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

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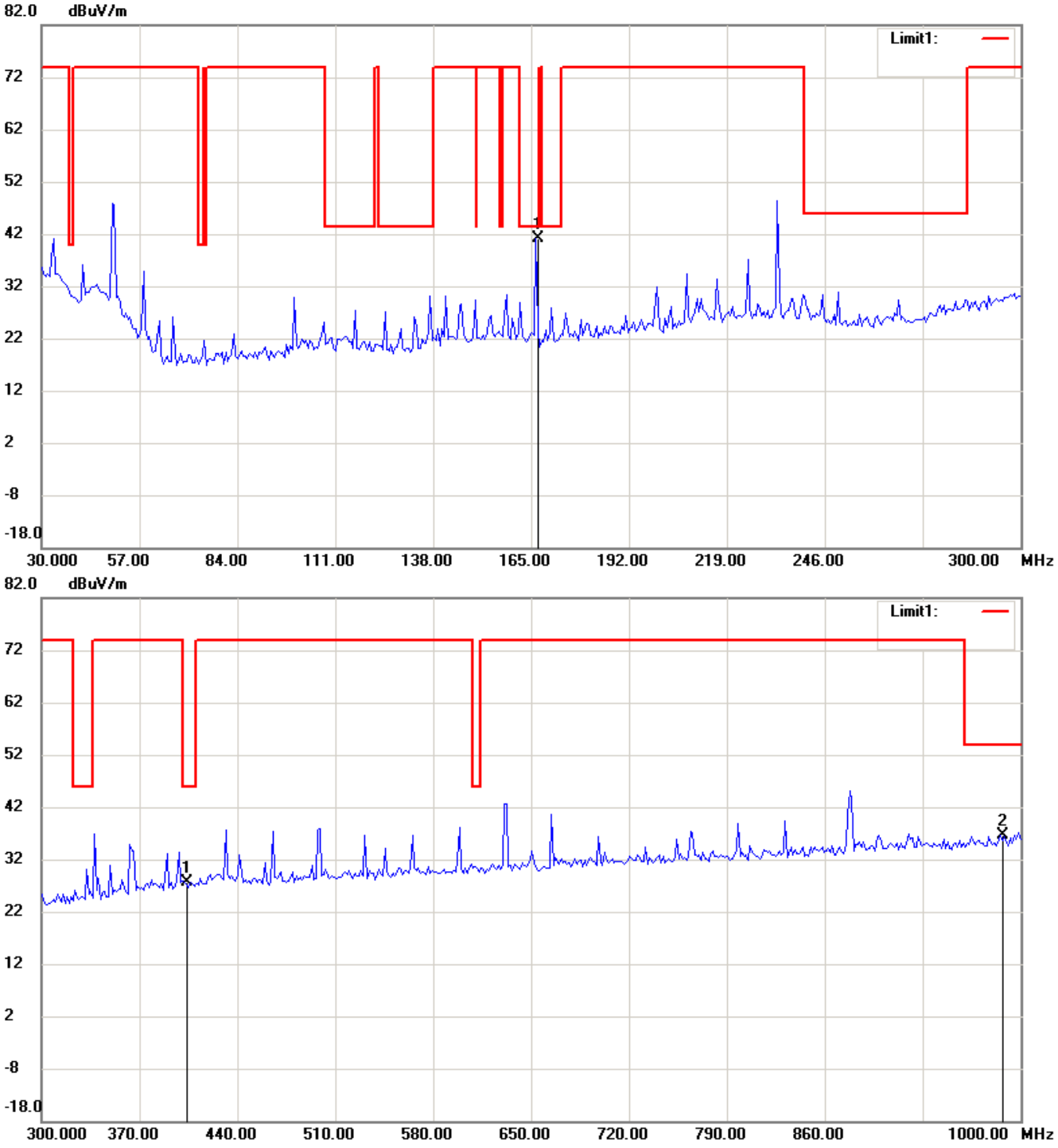
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

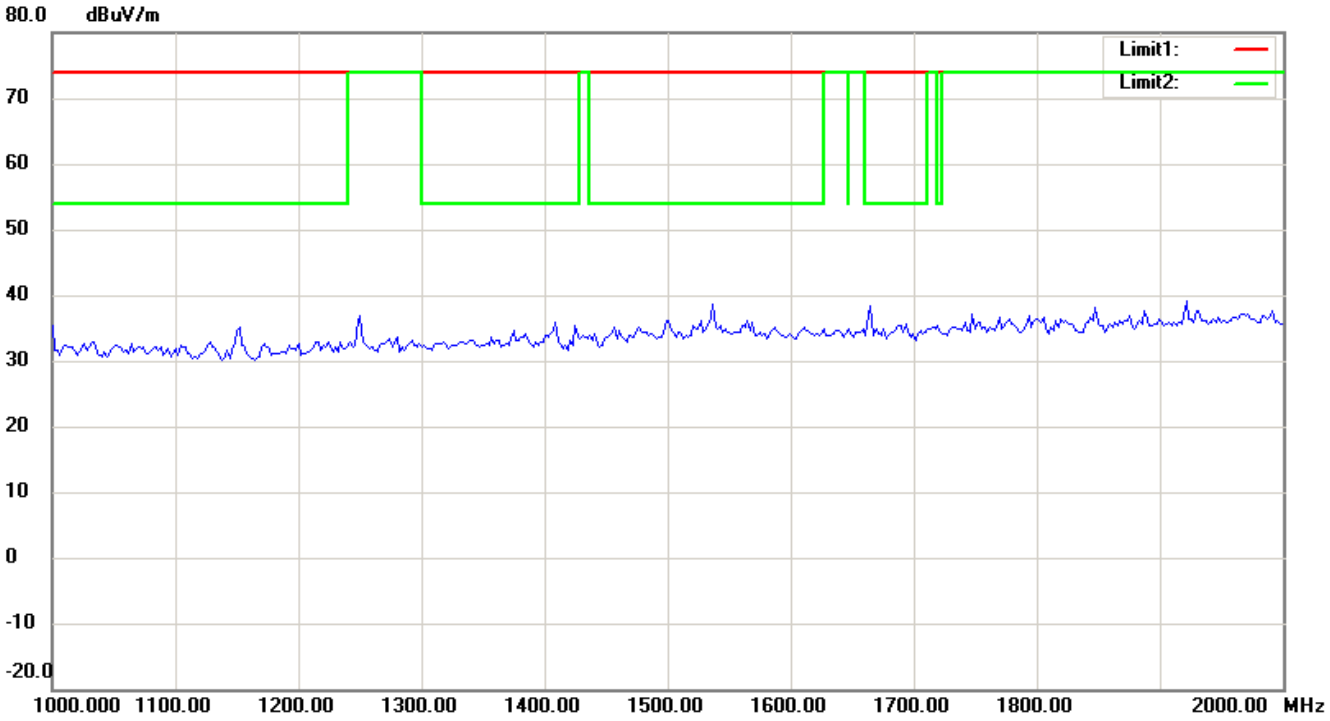
## Antenna Polarization V

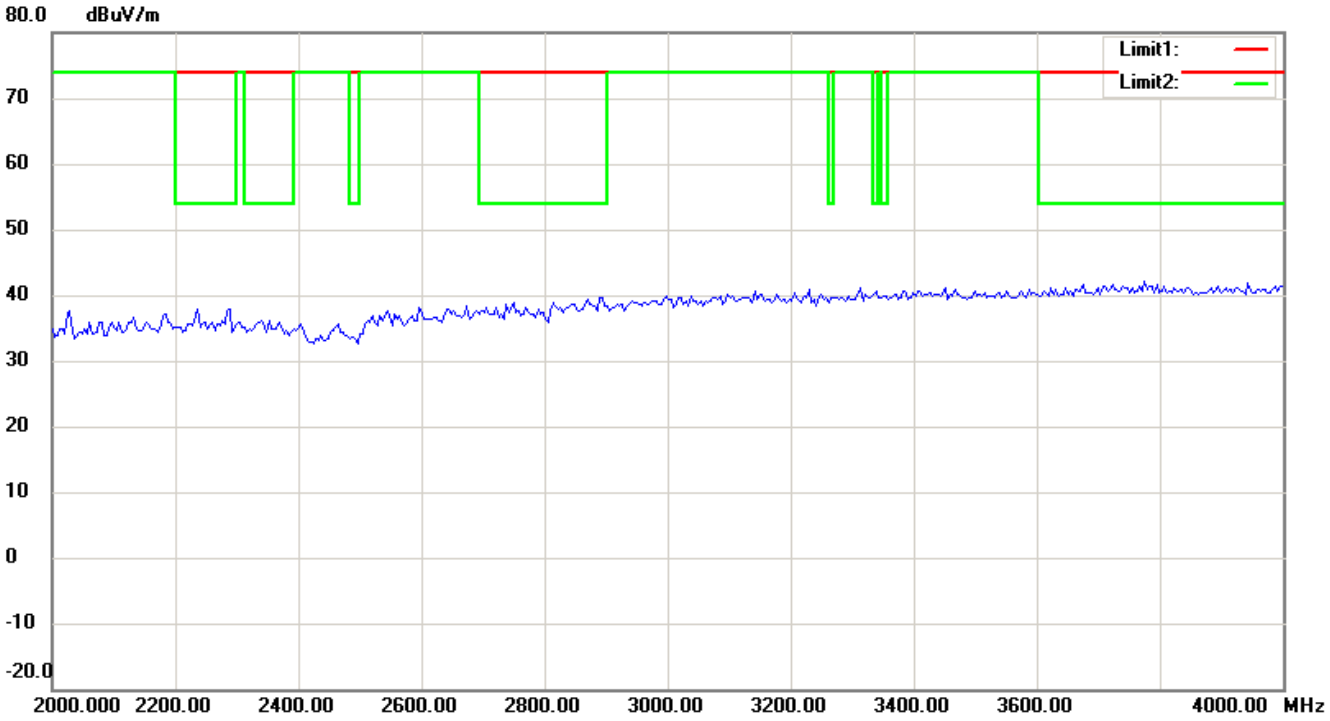



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

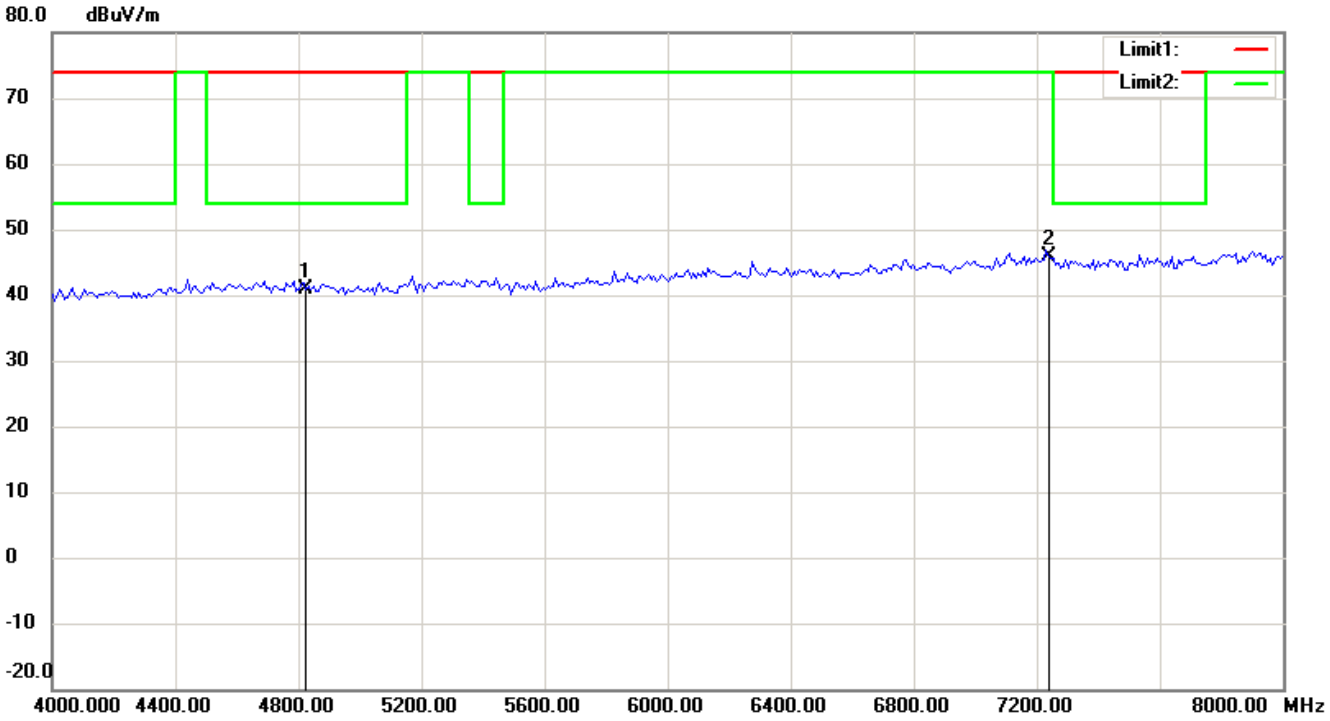


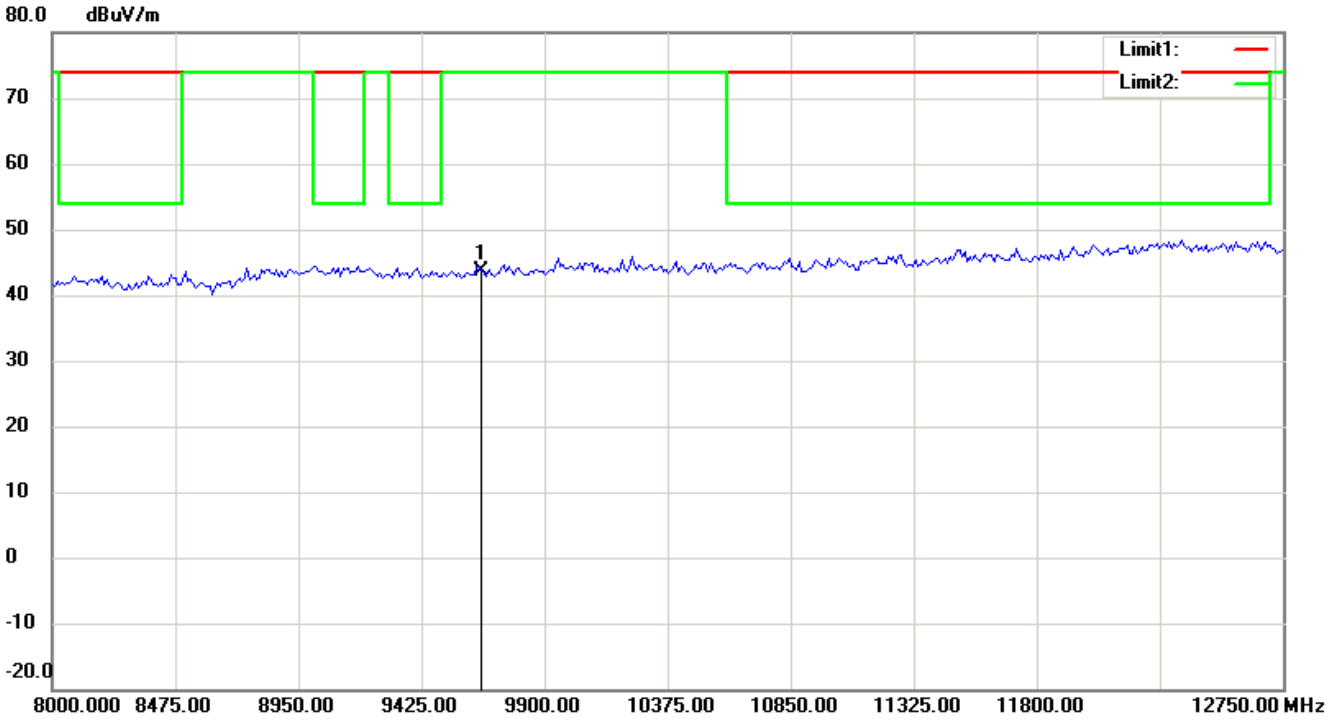




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
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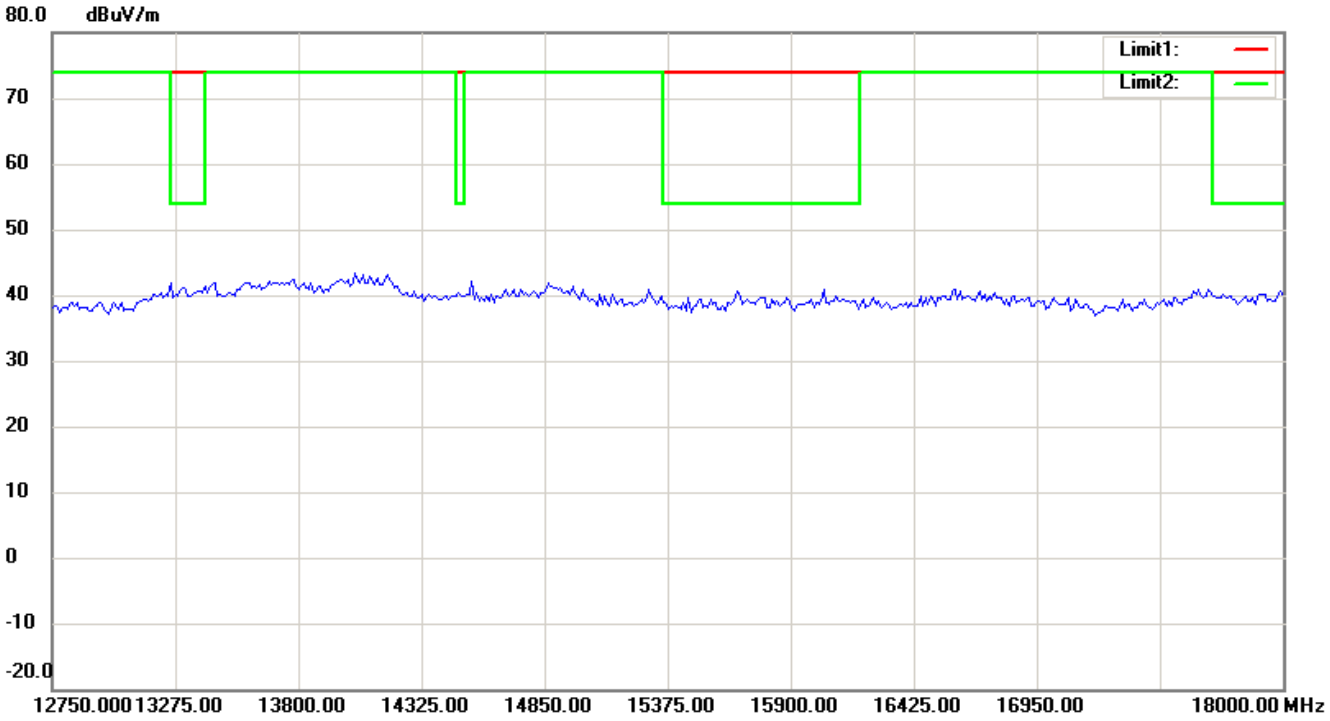
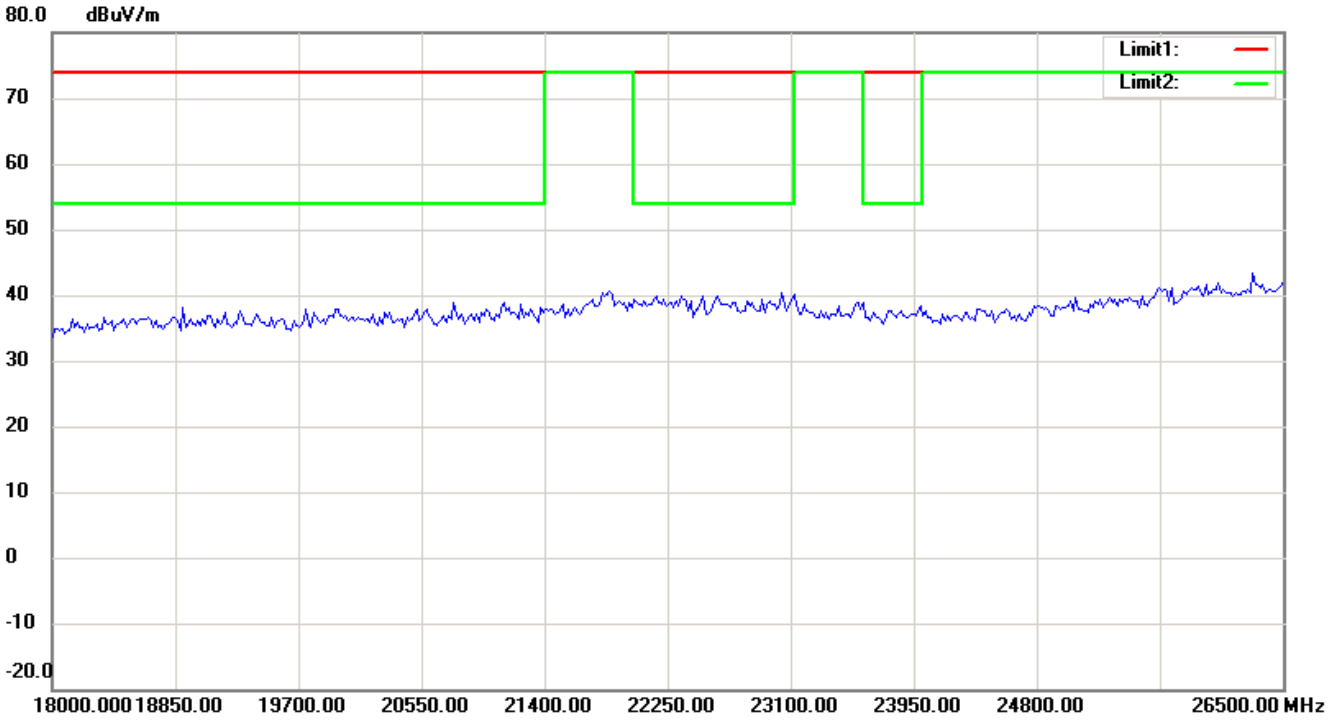
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
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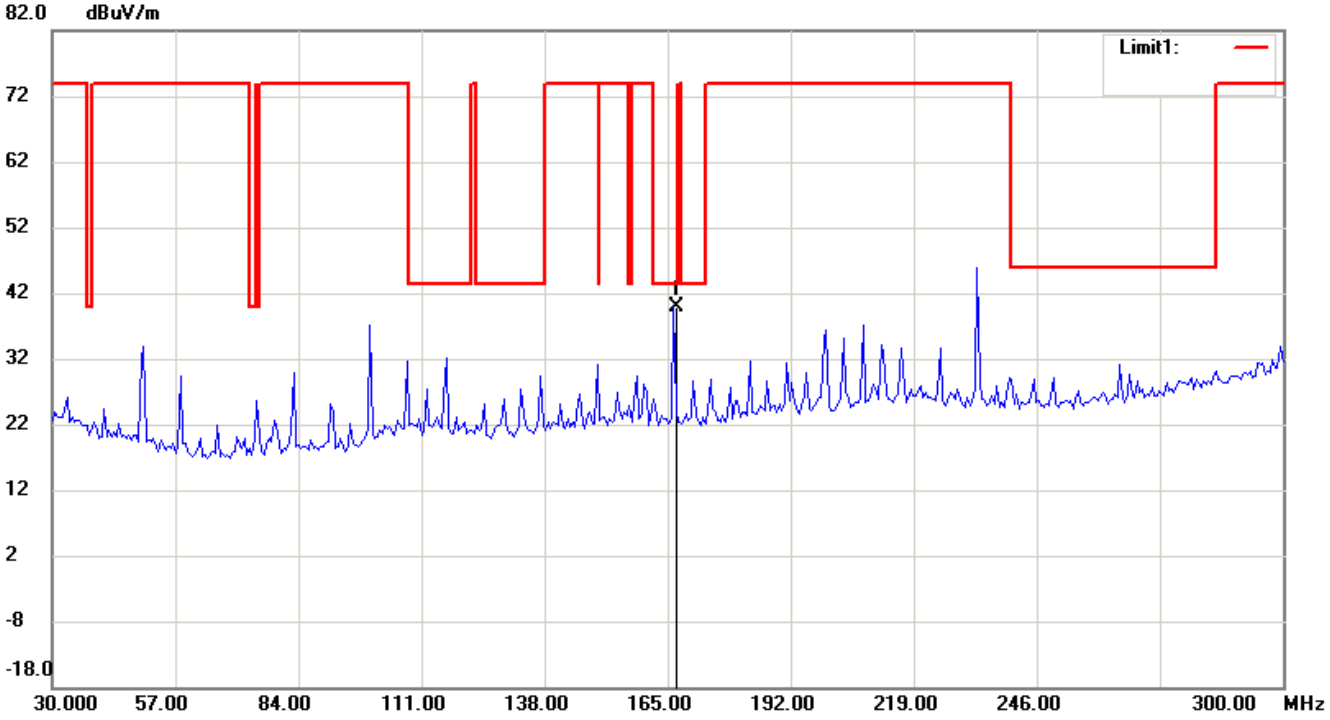
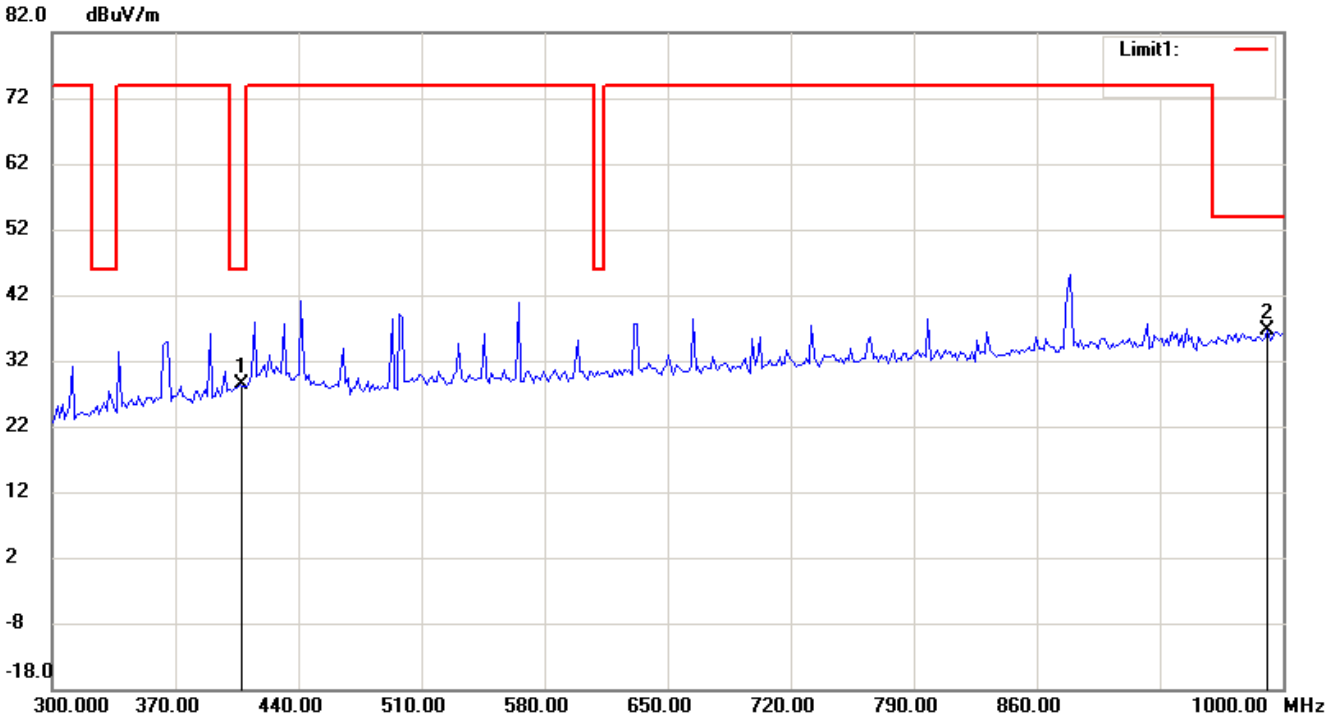
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

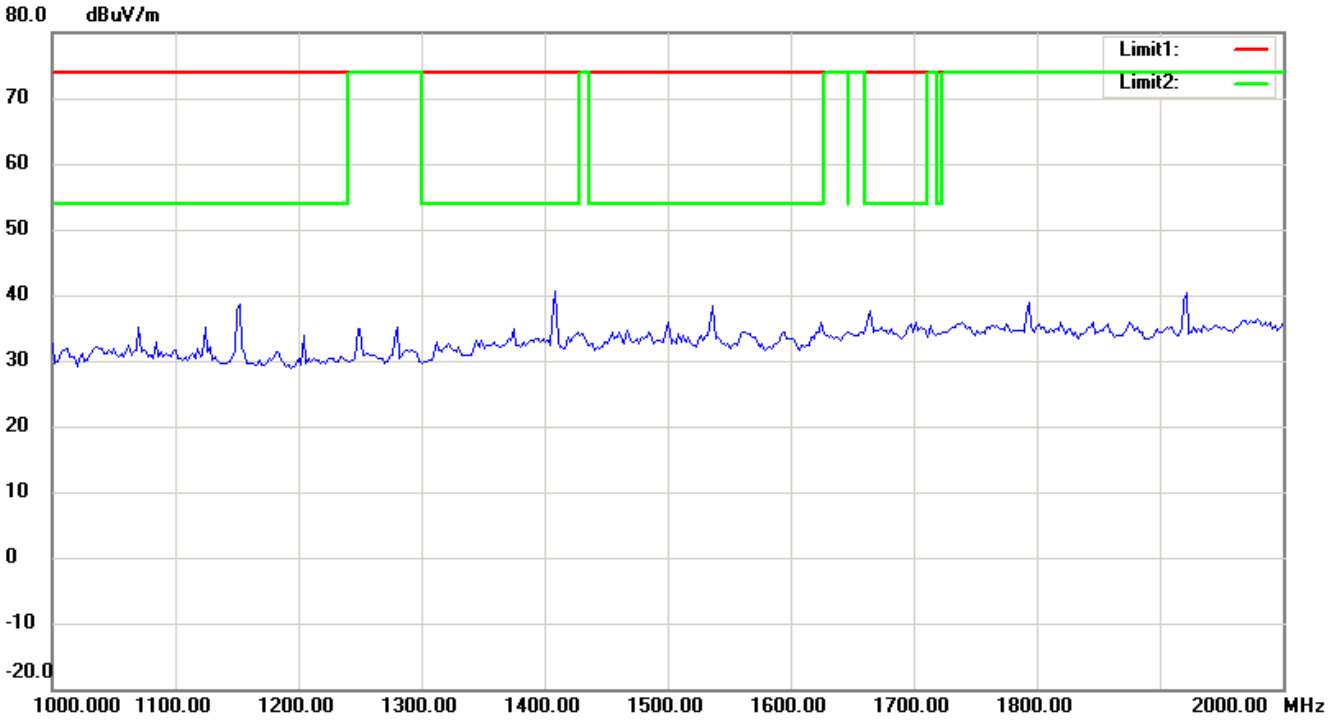
Channel 6
Antenna Polarization H

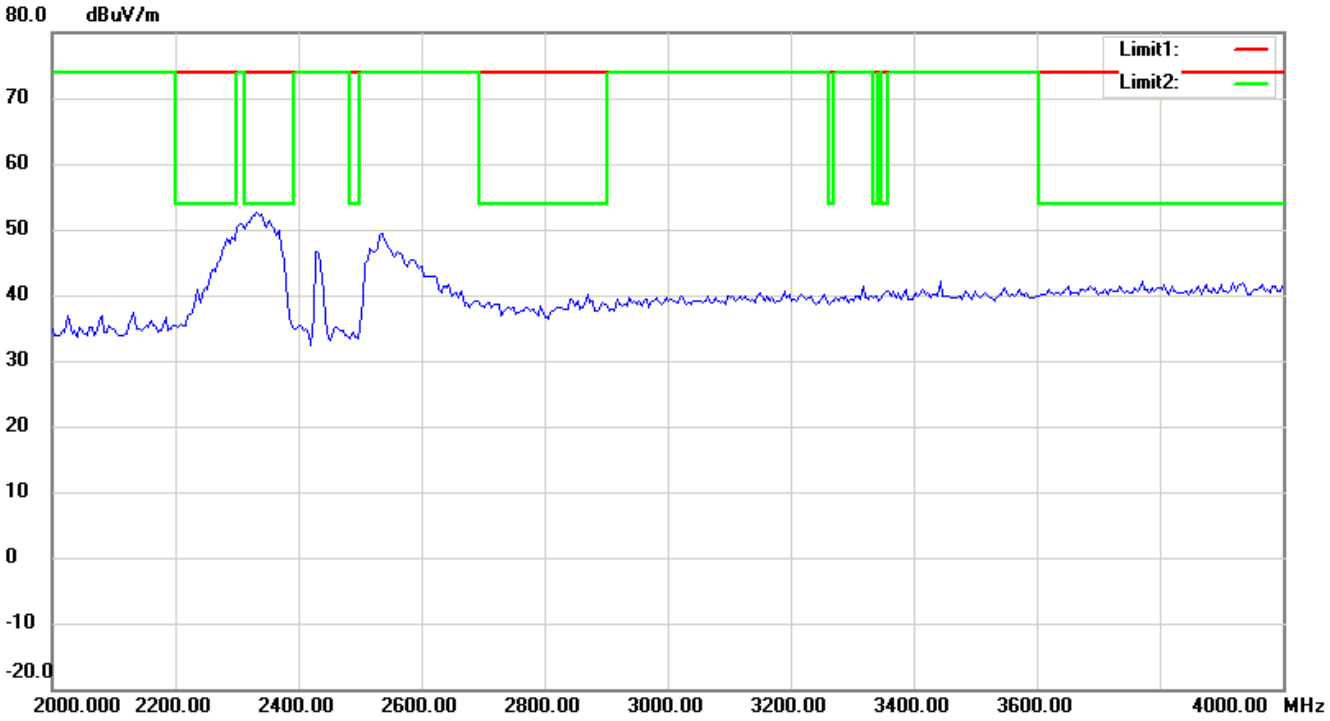



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**
**1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
**3. For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

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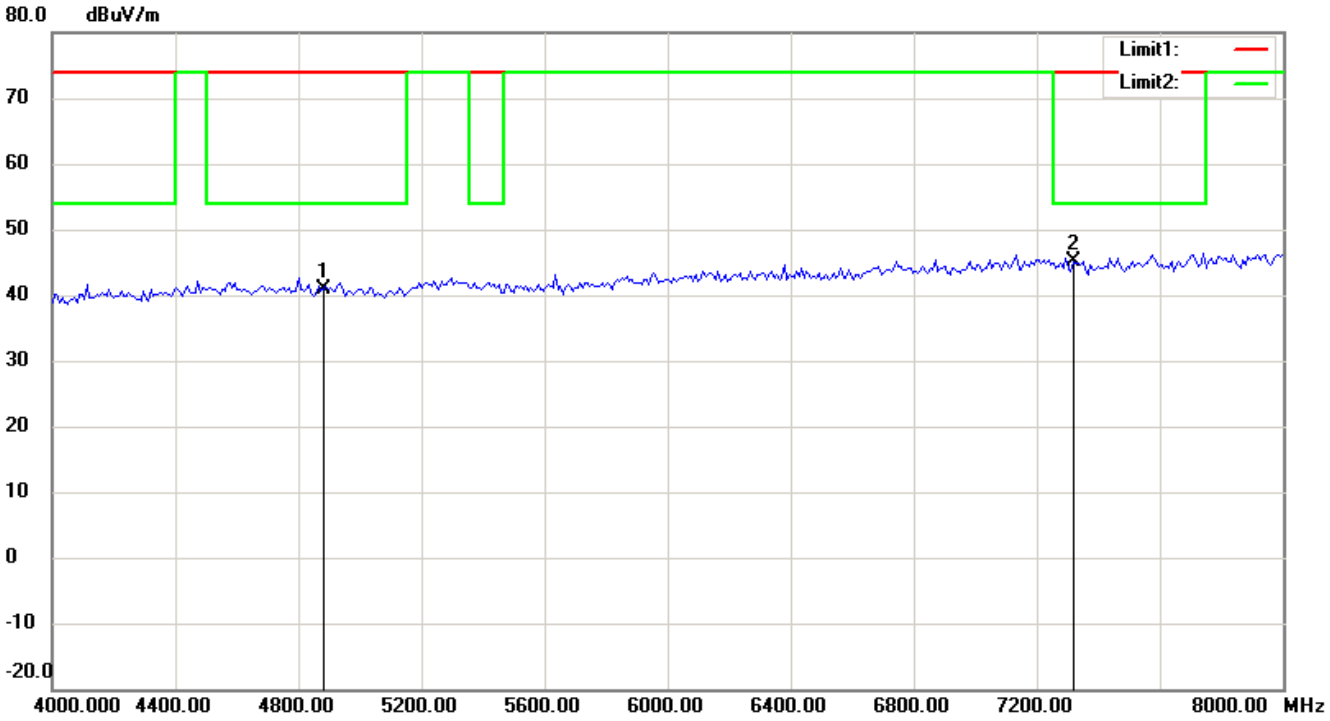
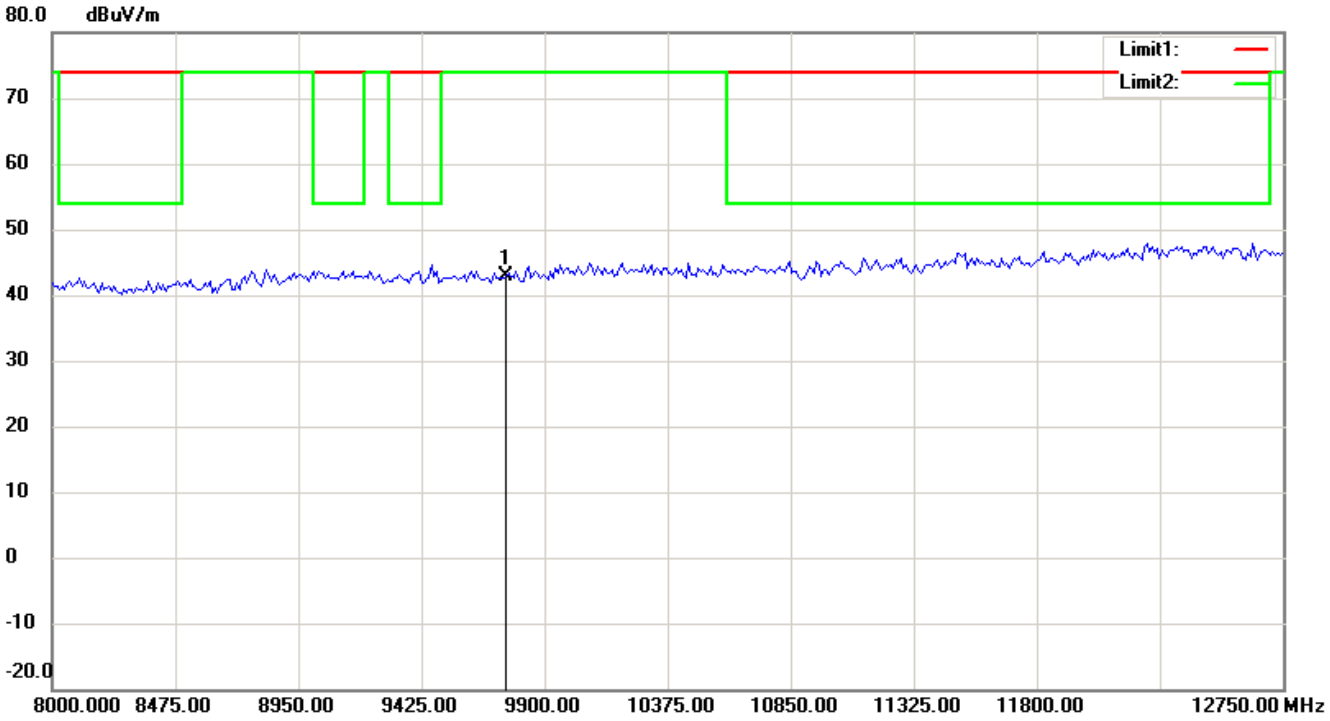
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
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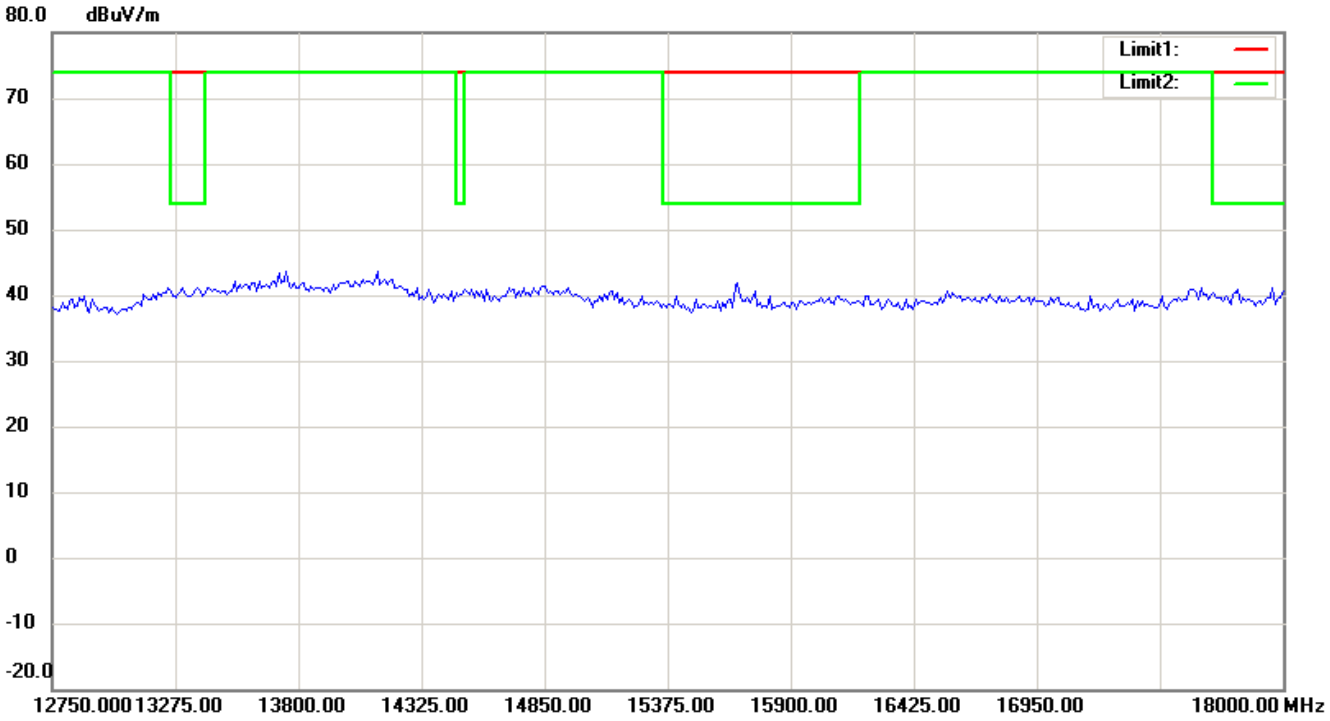
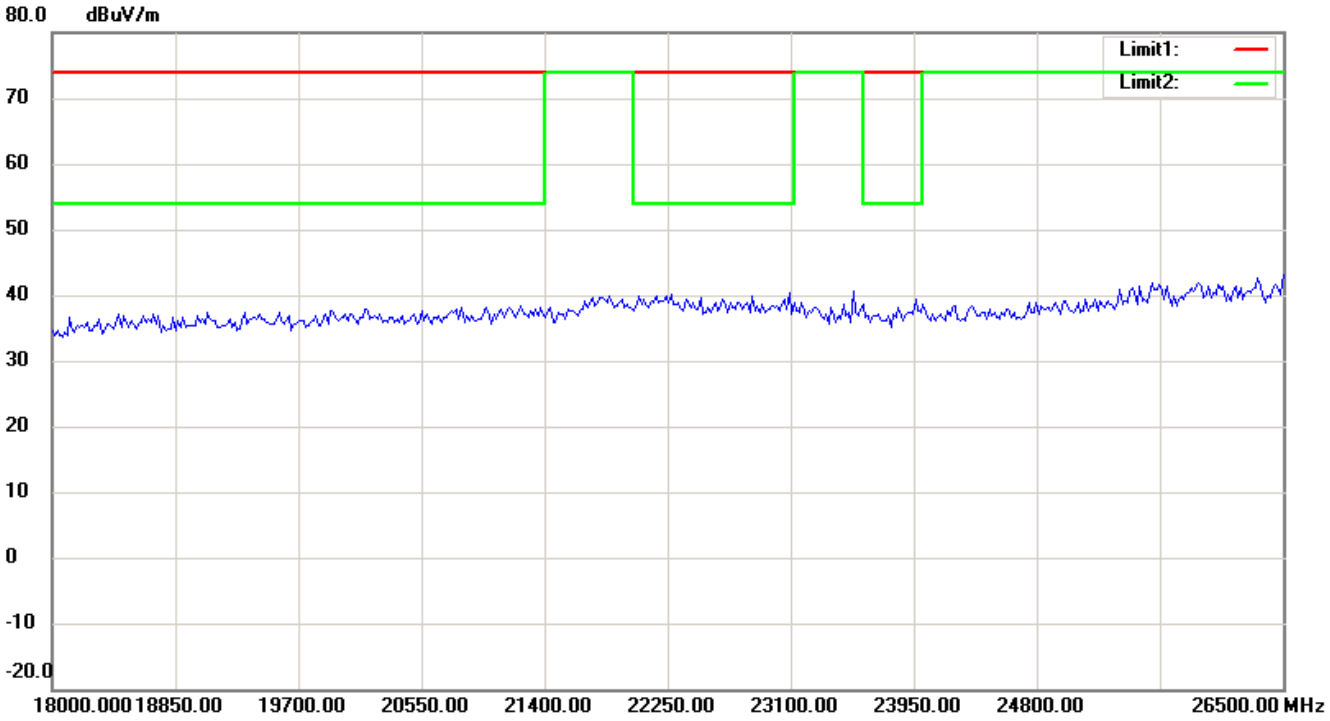
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

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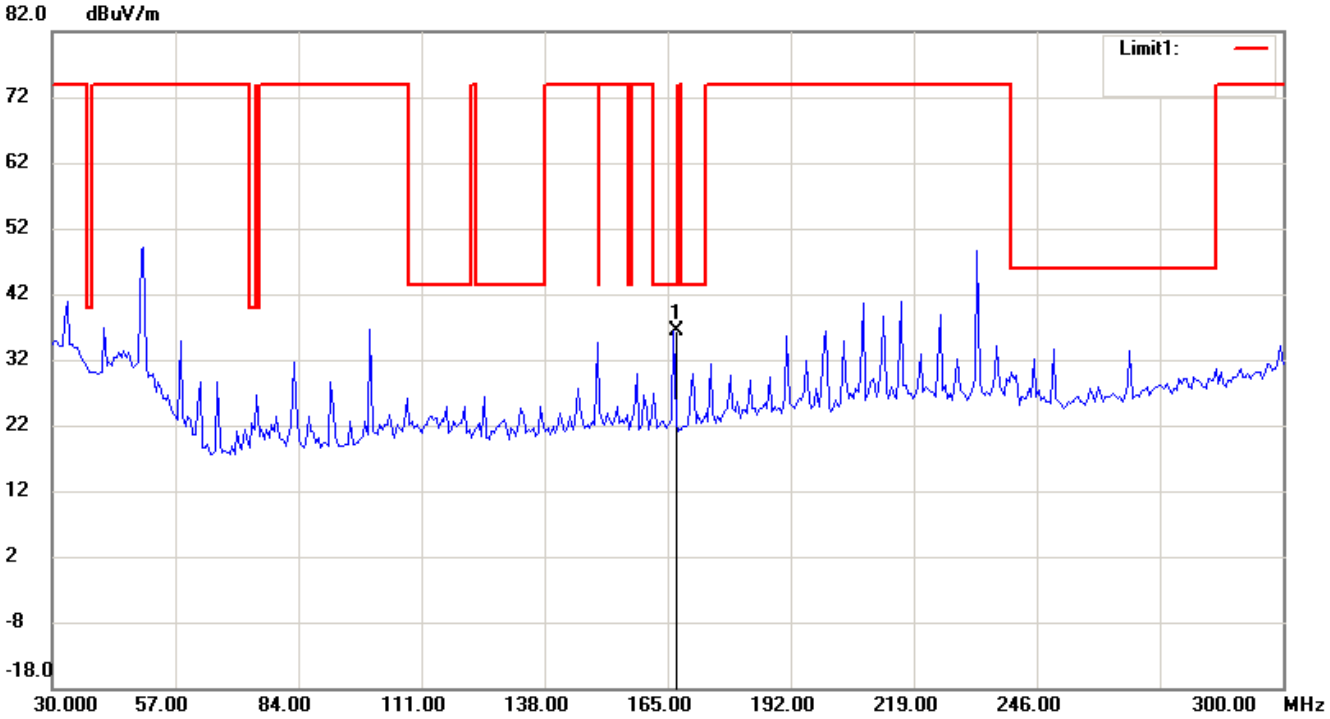
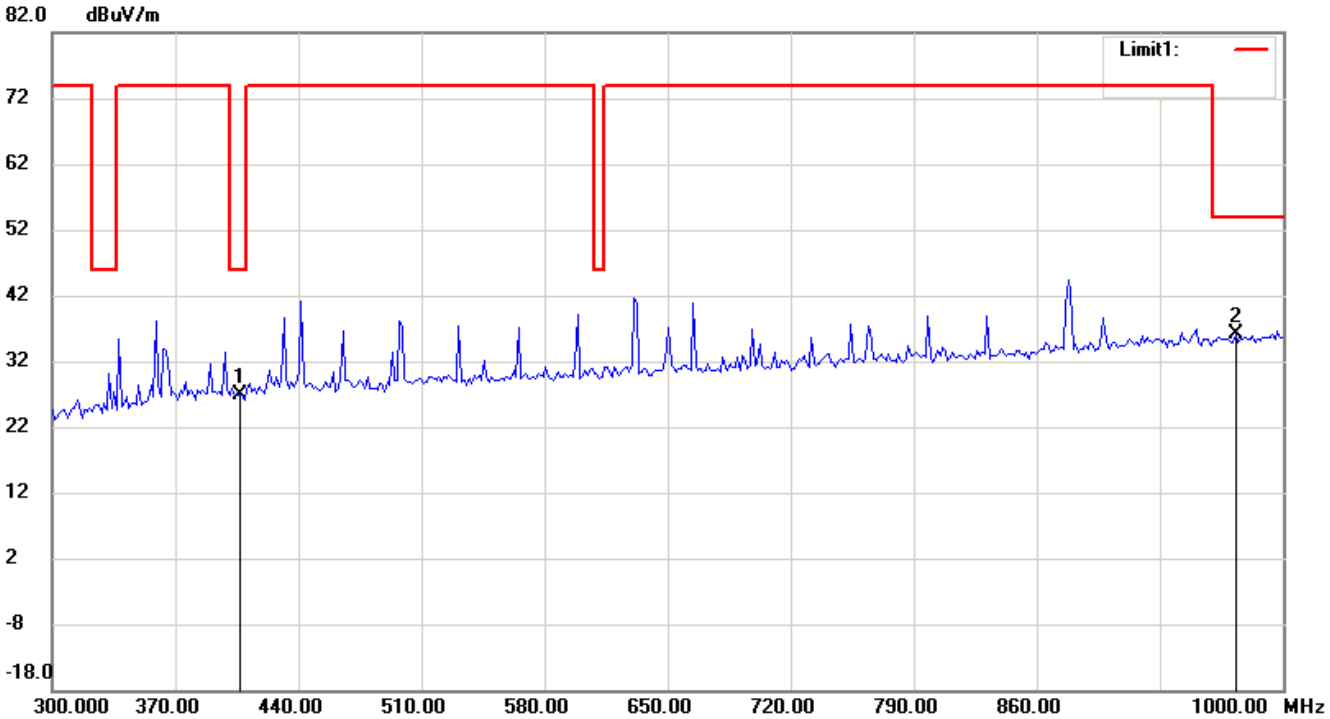
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

## Antenna Polarization V




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

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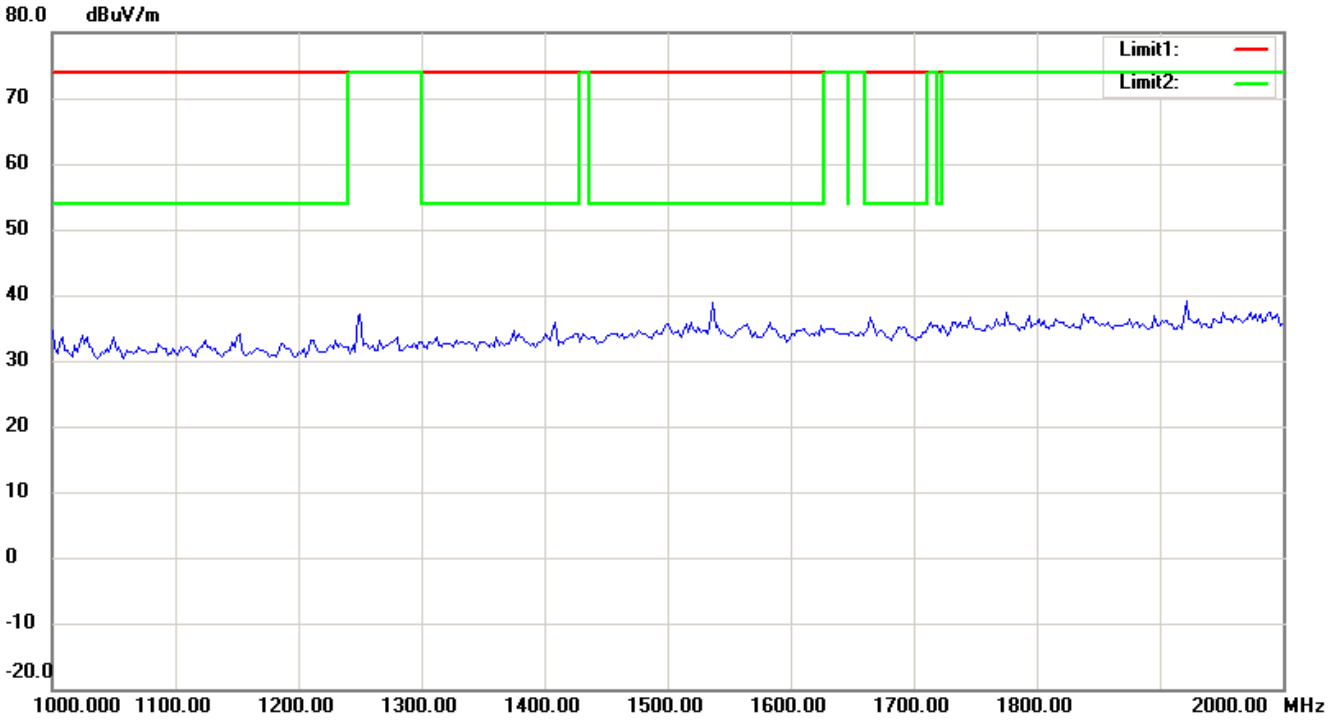
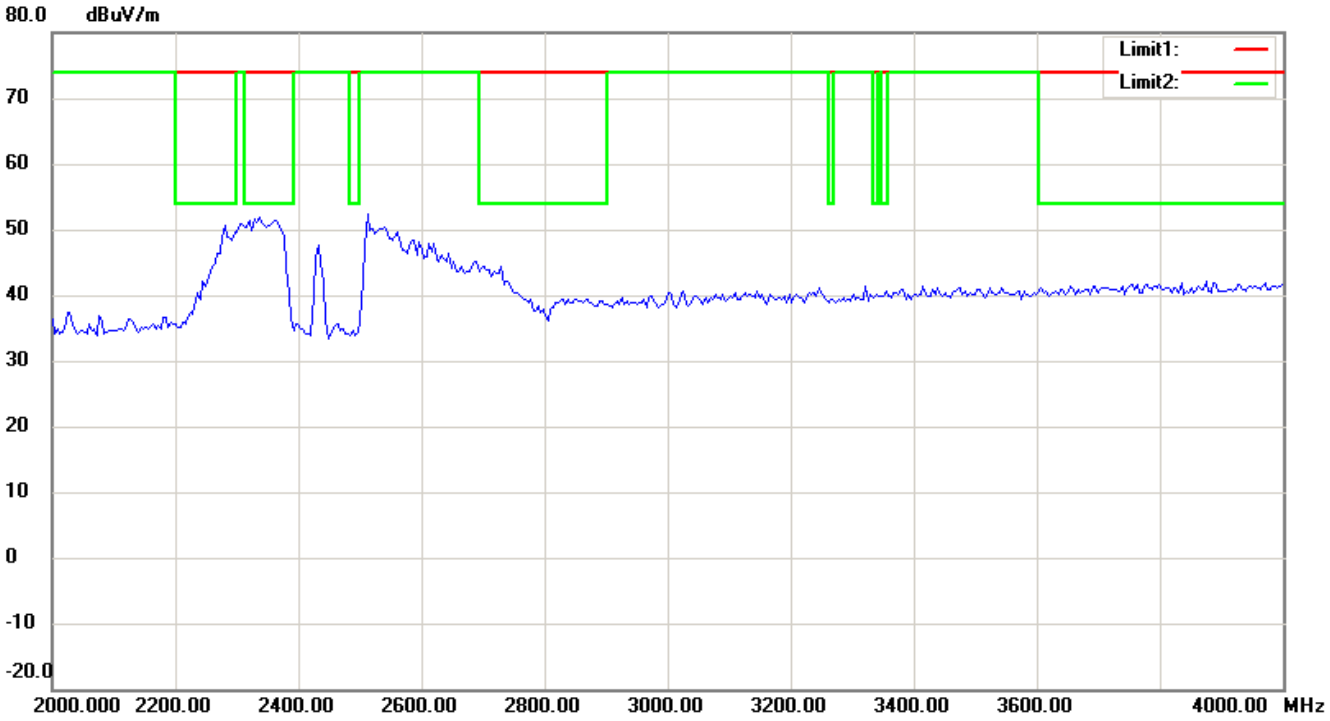
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
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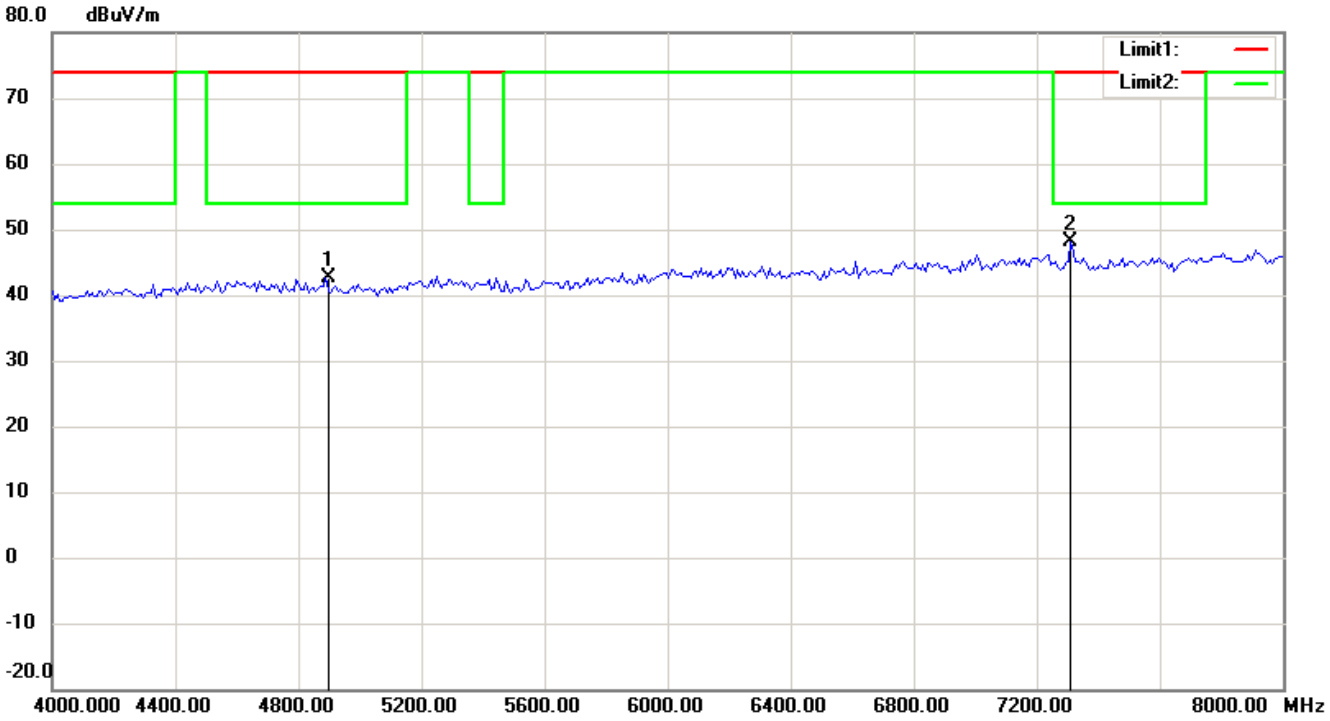
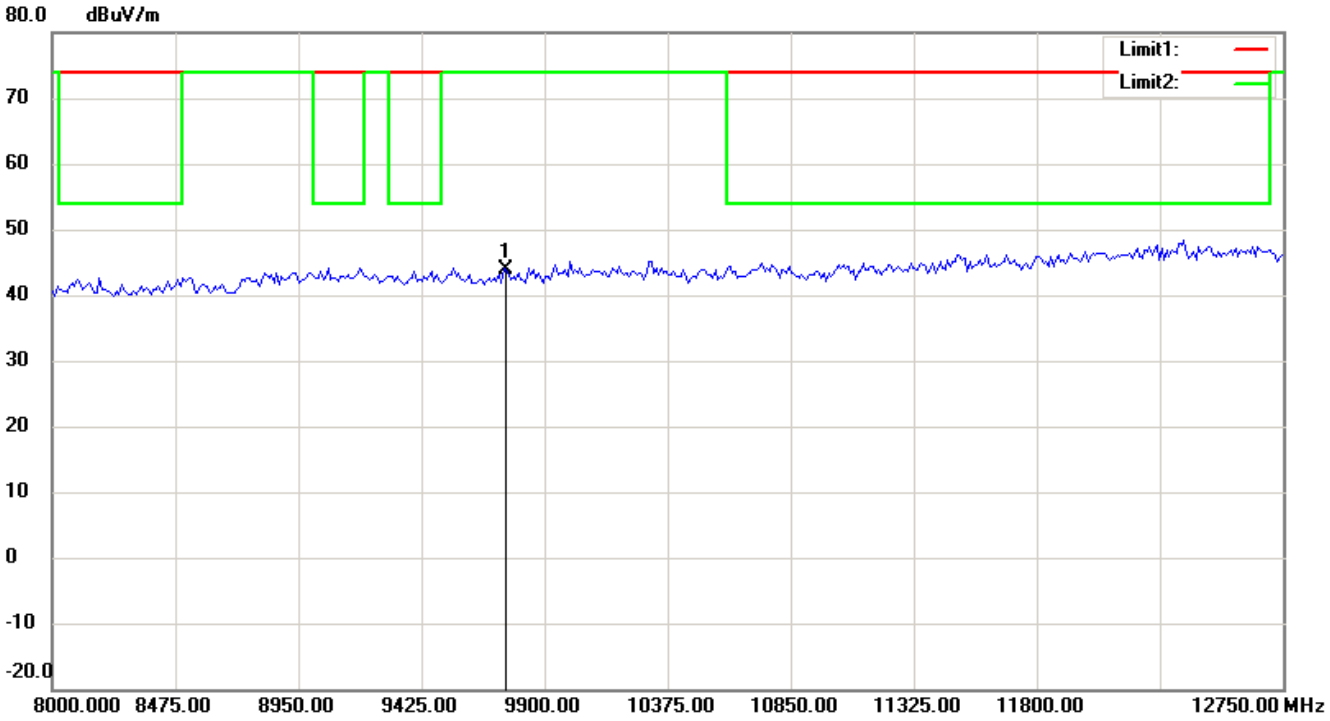
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

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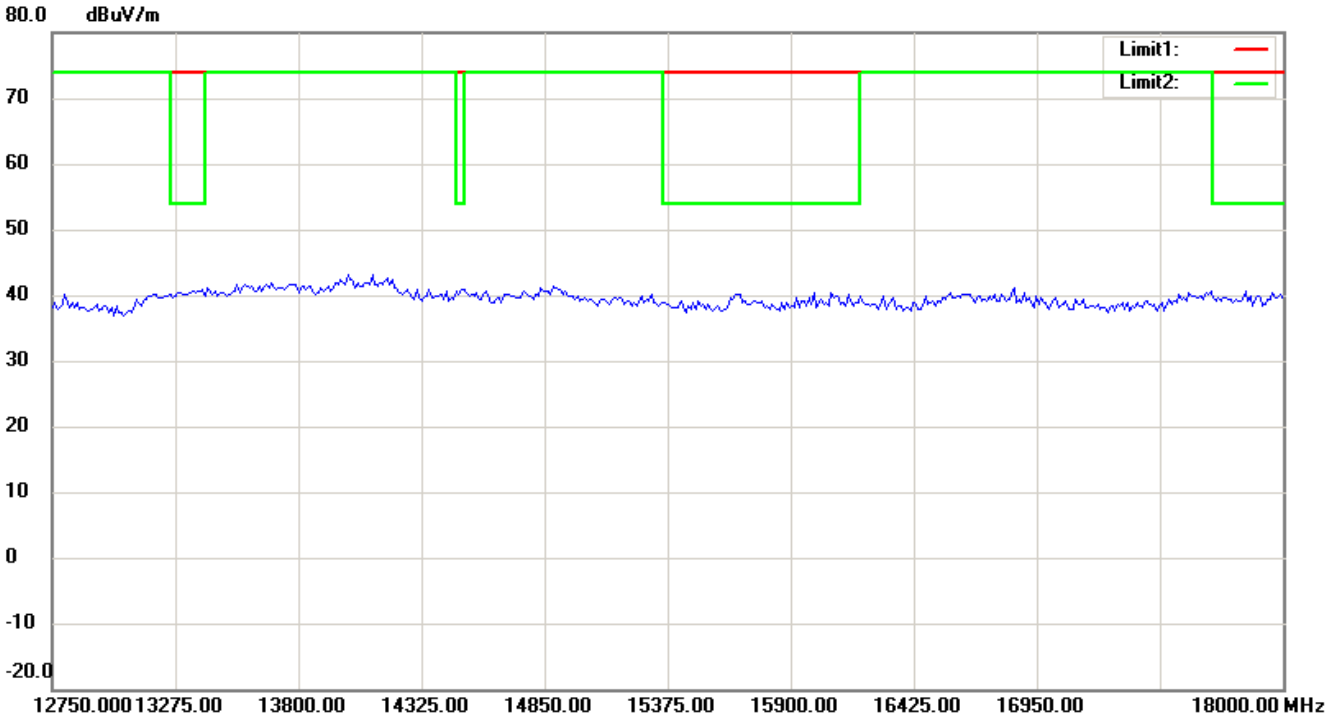
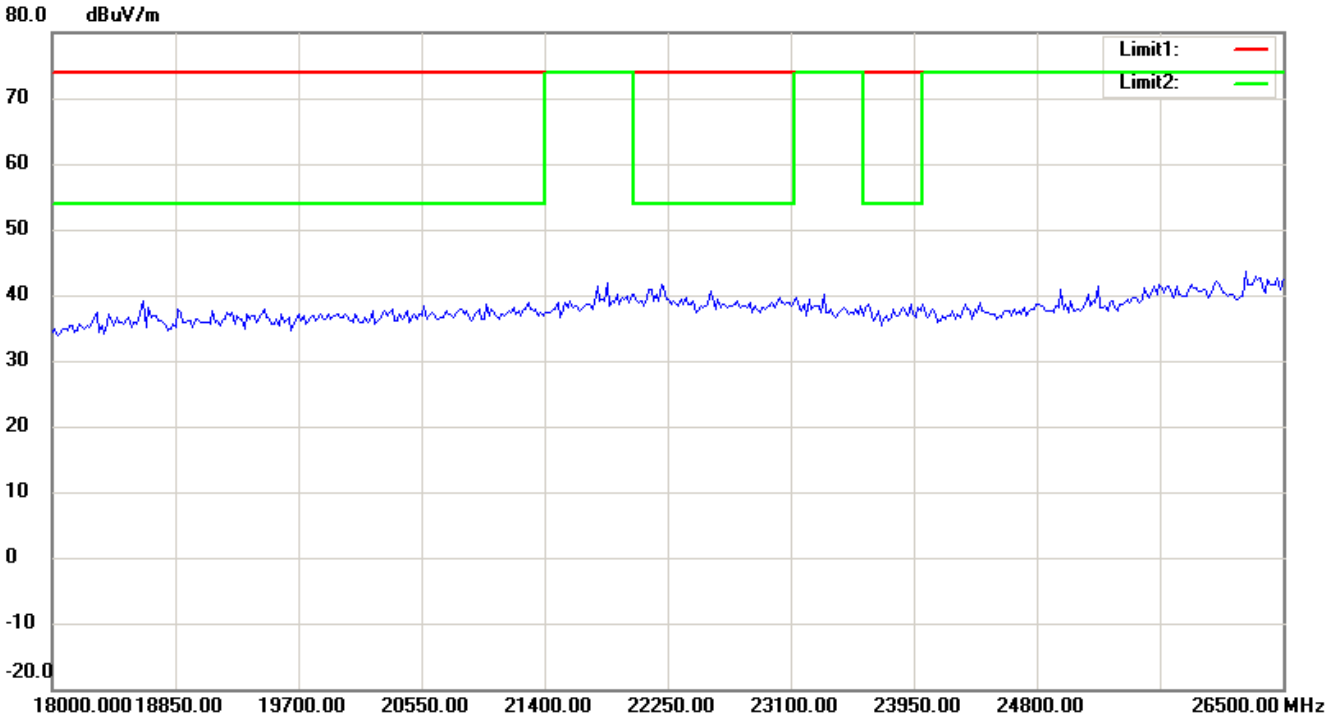
FCC ID: Y2A-MK-100




**Note:**
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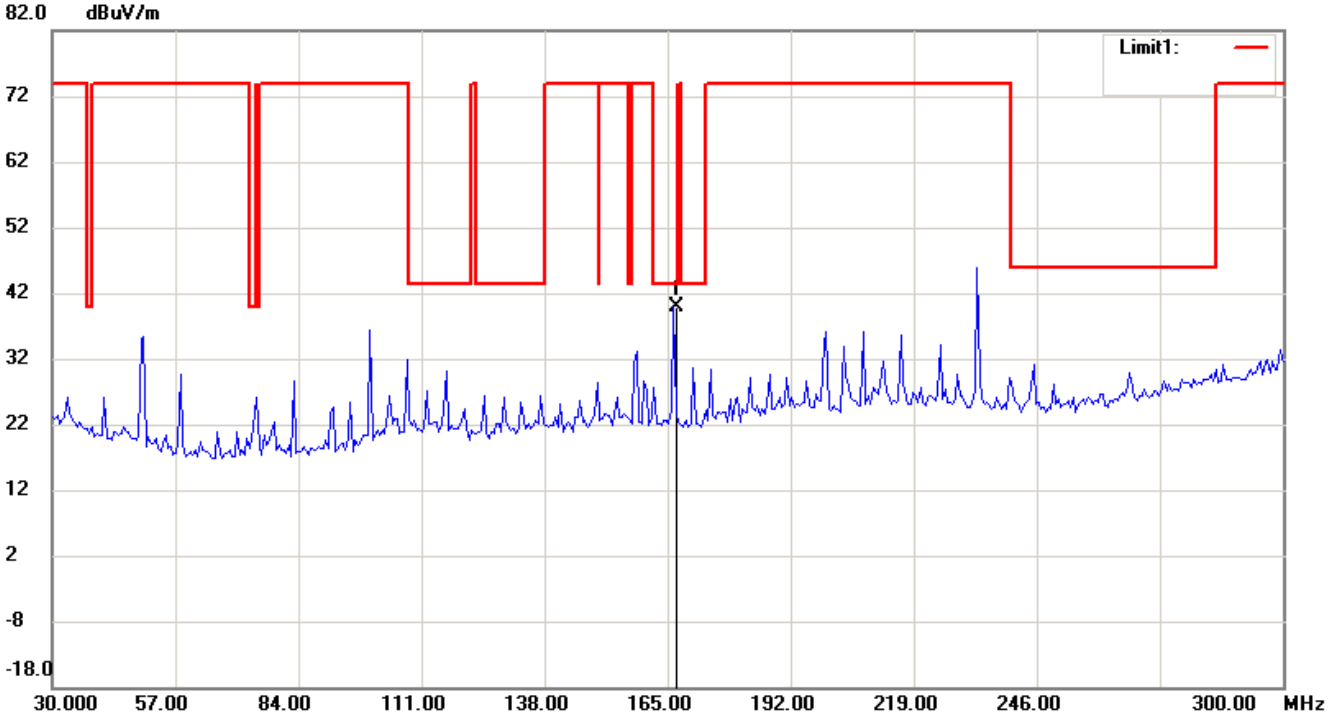
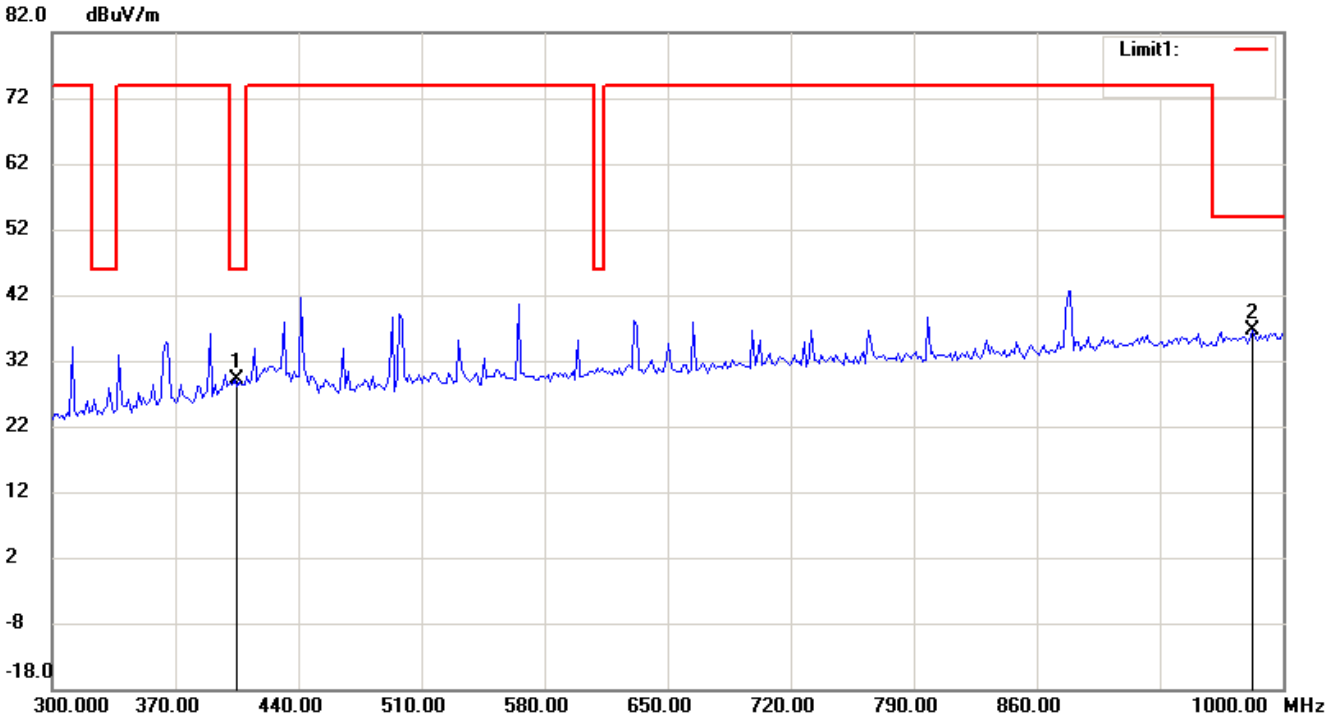
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

Channel 11
Antenna Polarization H




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
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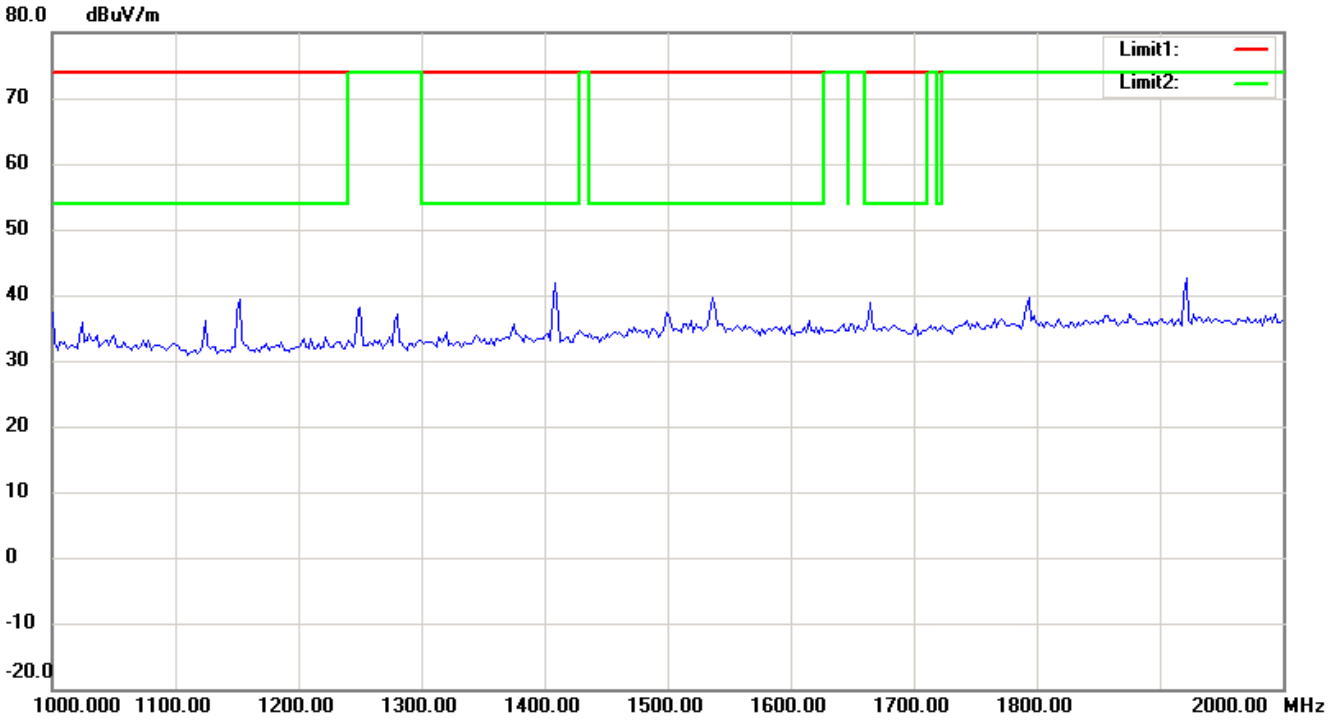
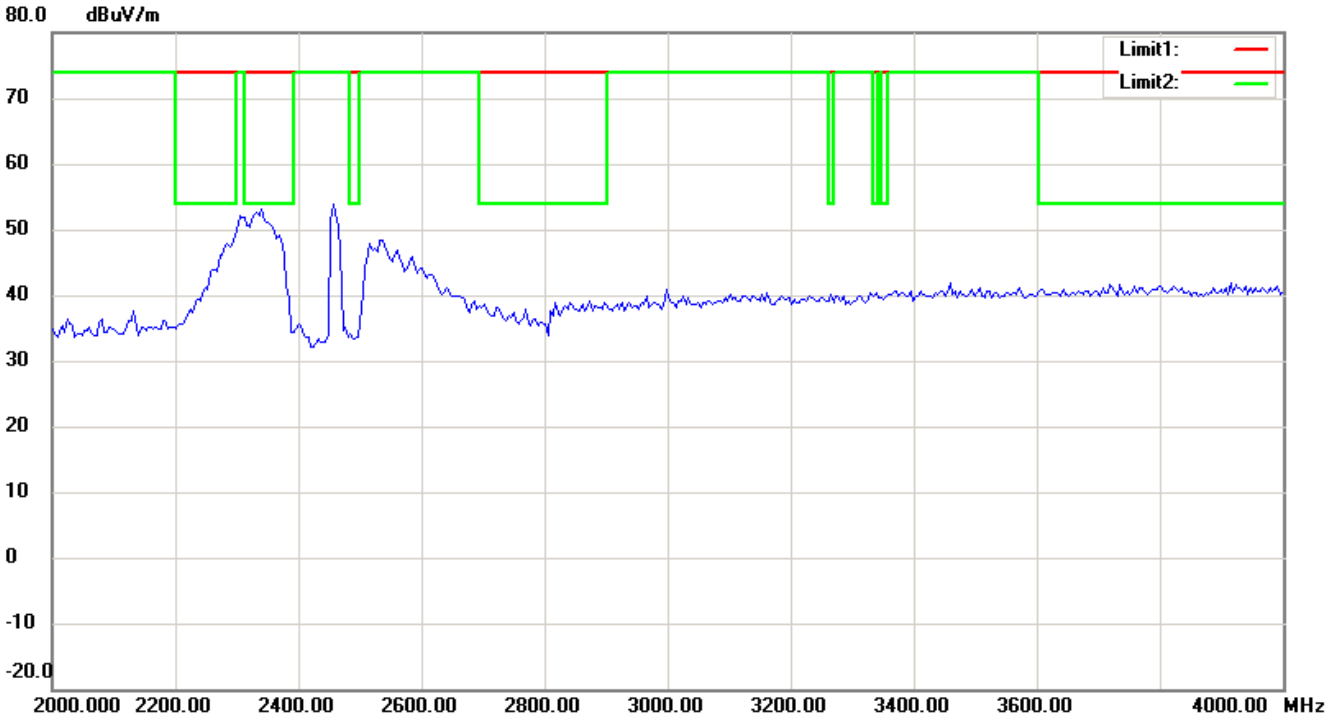
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
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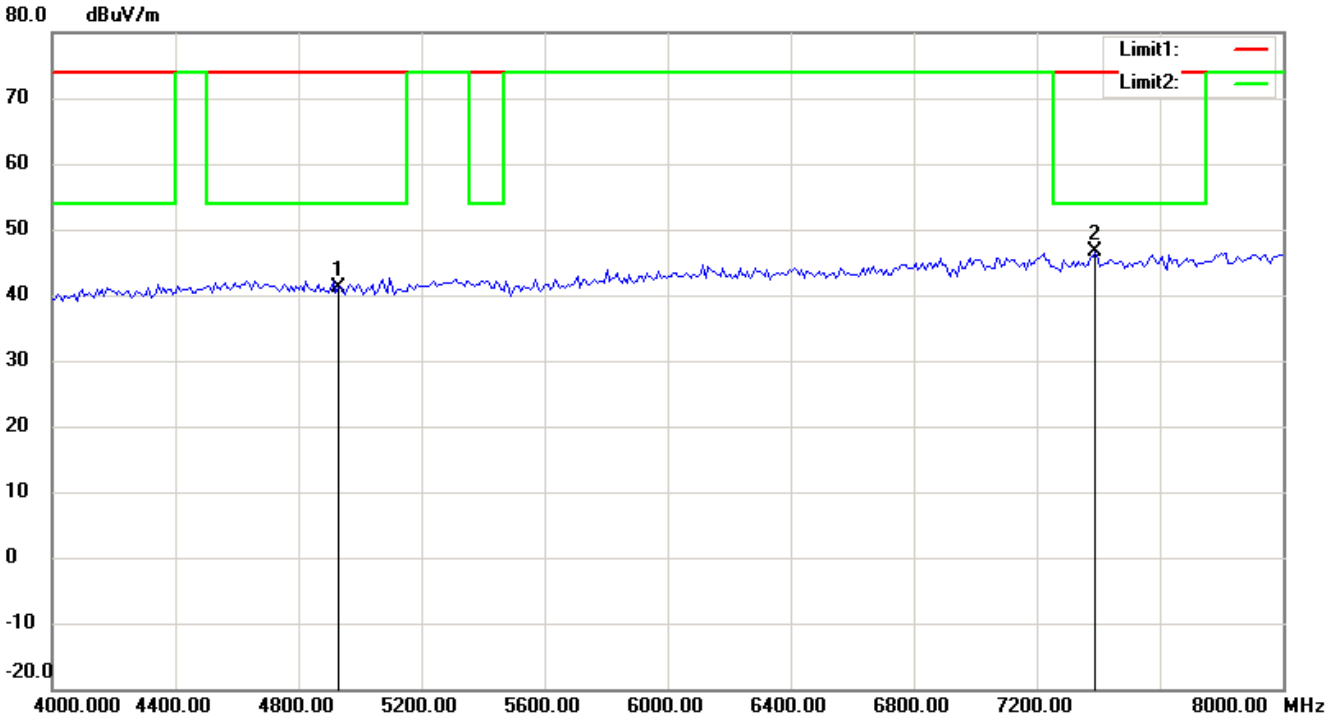
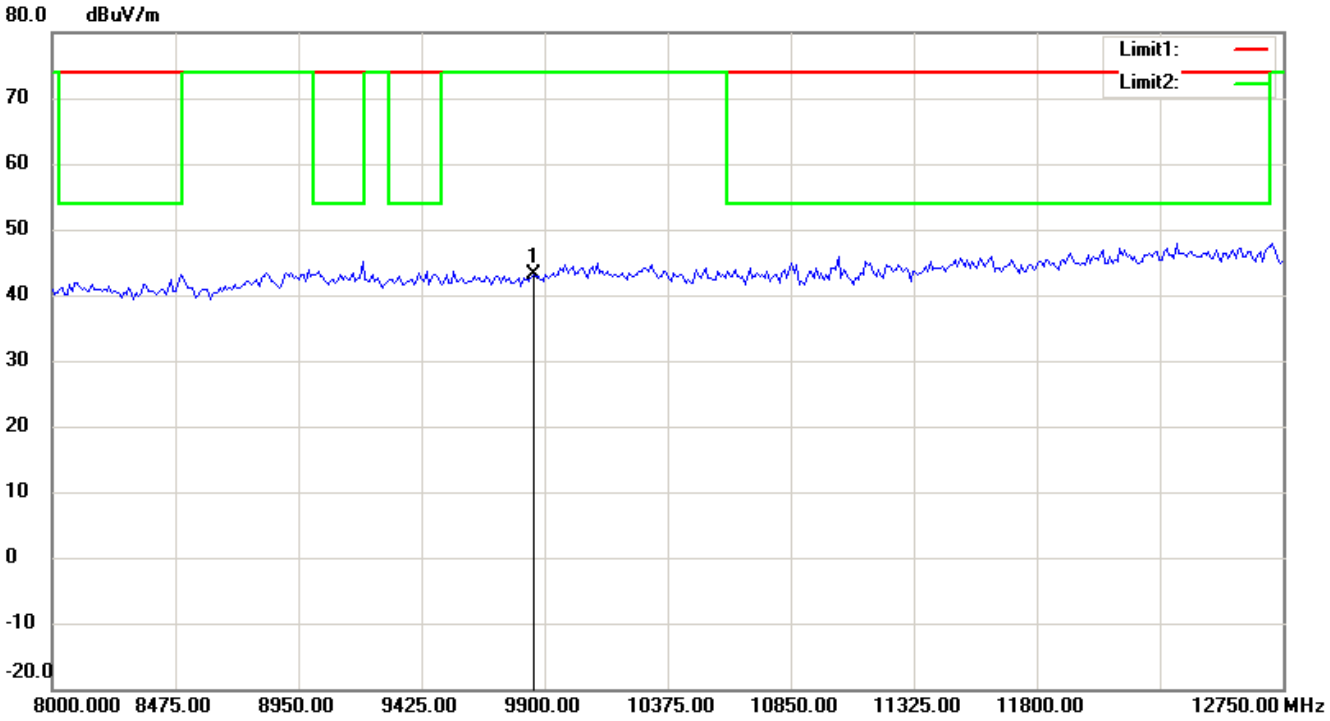
FCC ID: Y2A-MK-100




**Note:**
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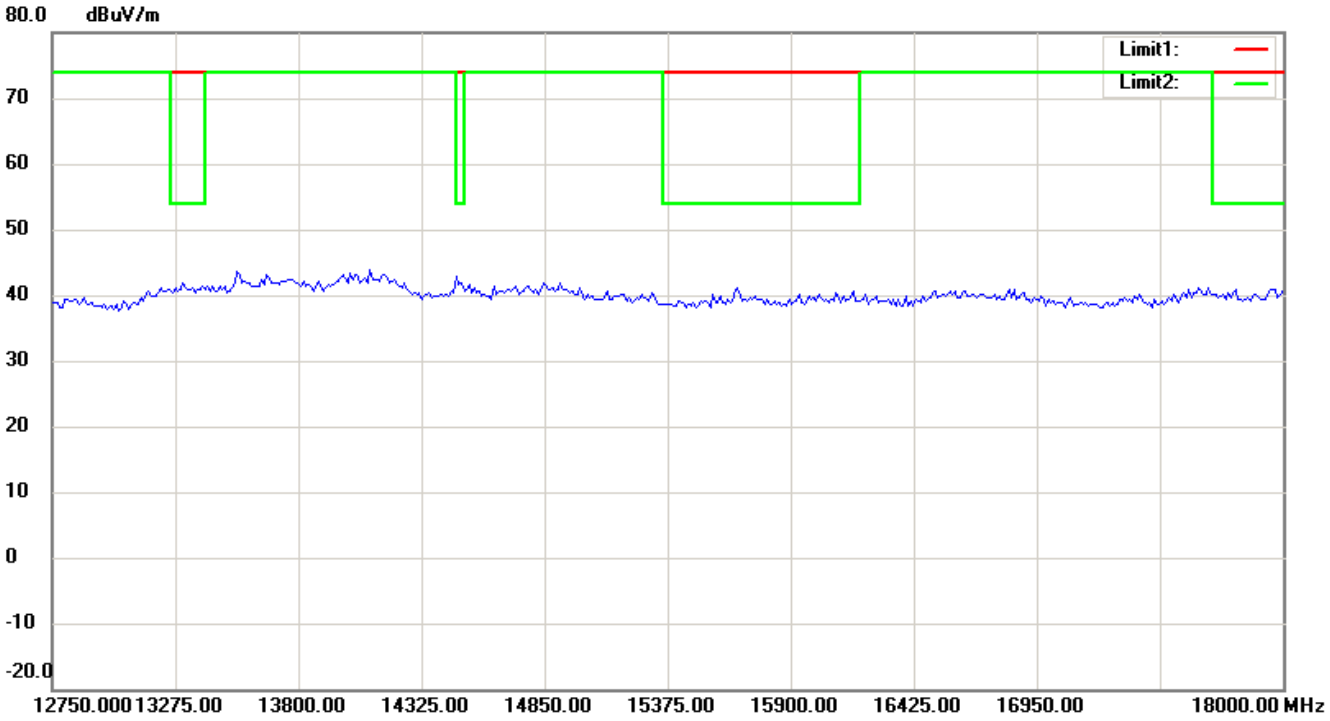


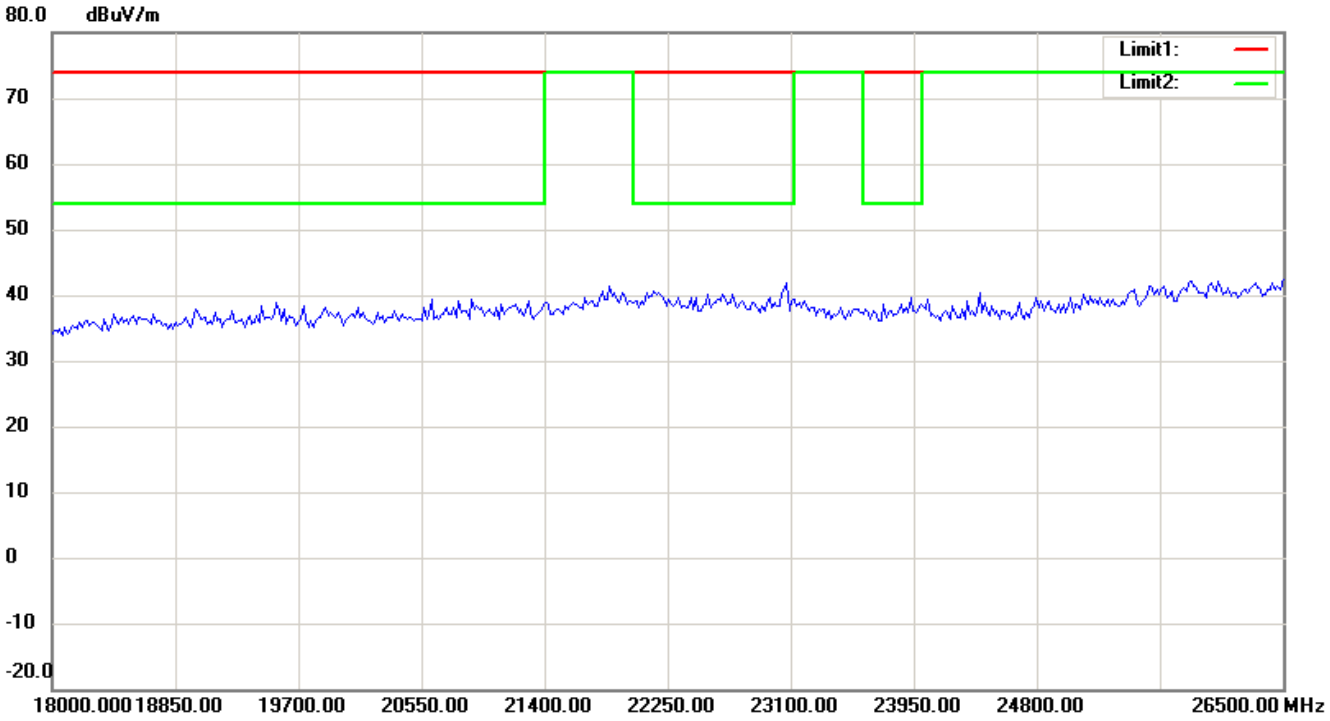


**Note:**
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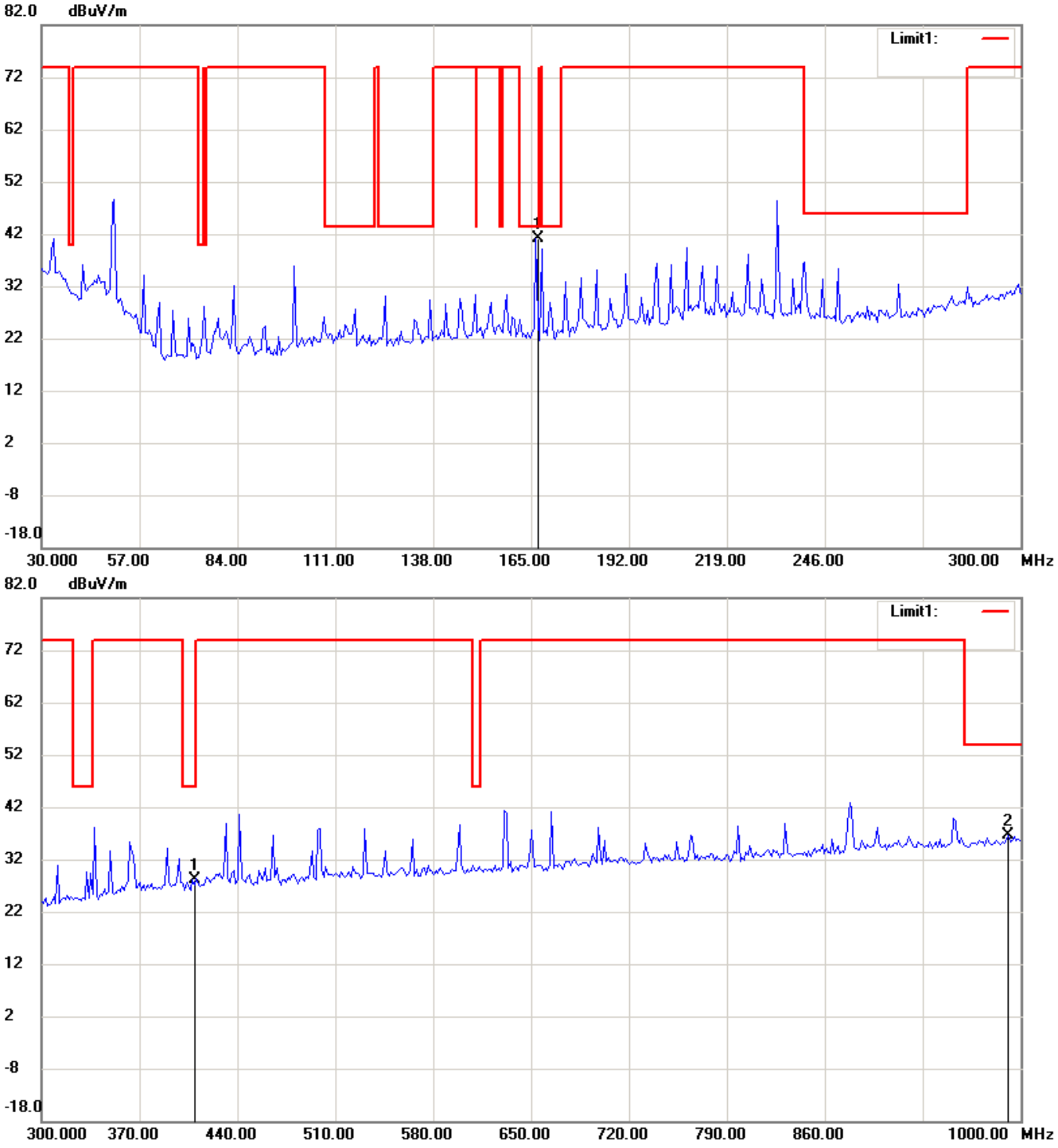
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

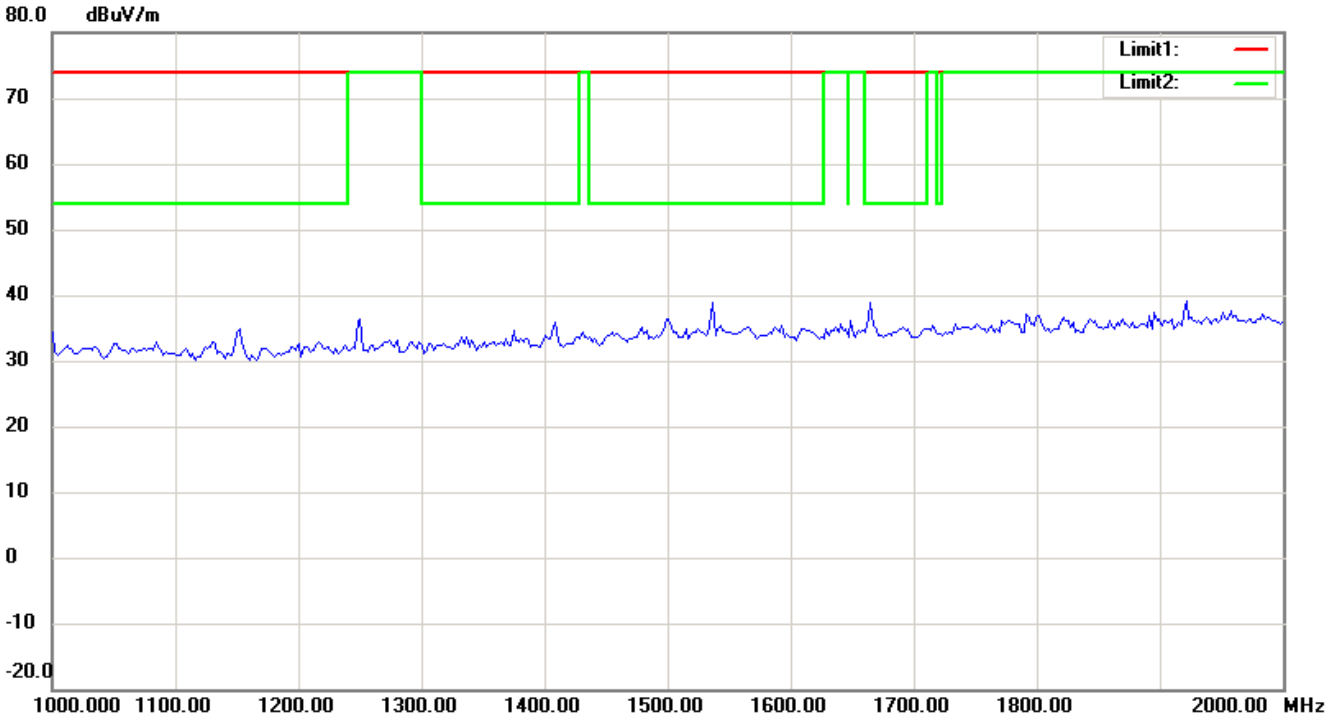
## Antenna Polarization V

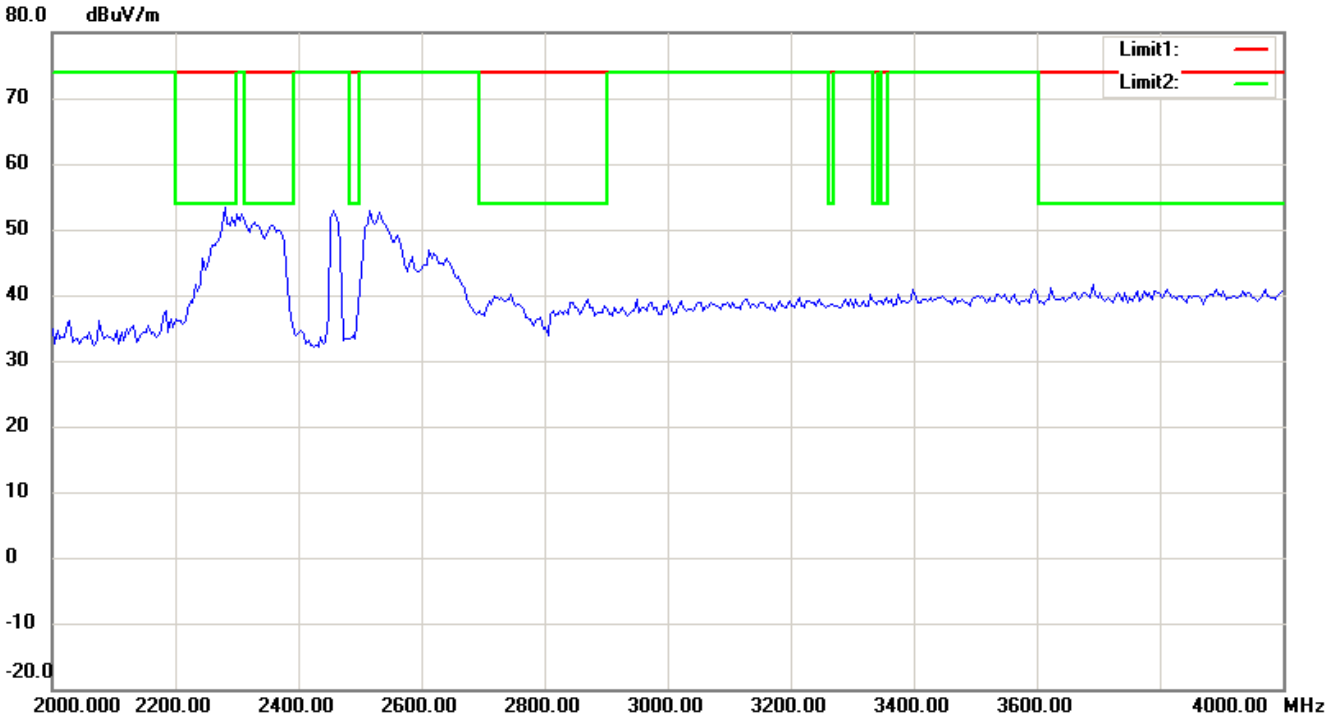



**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

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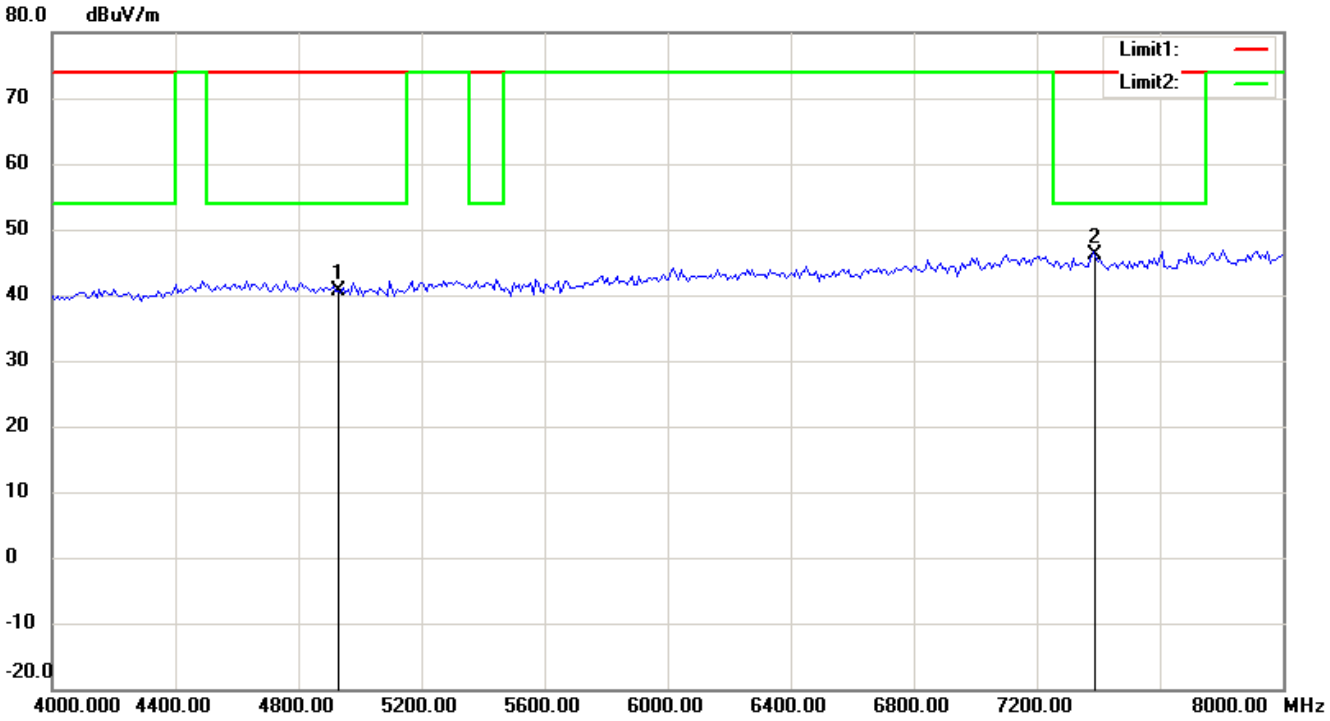
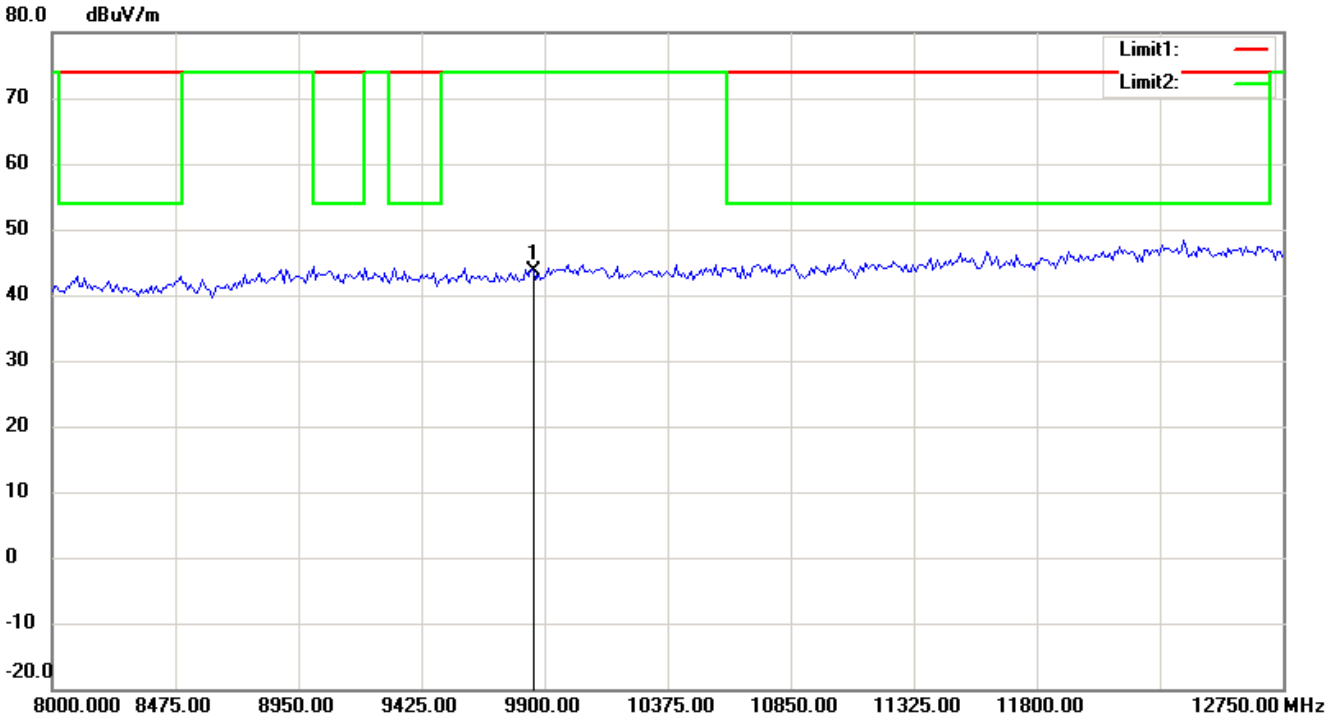
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

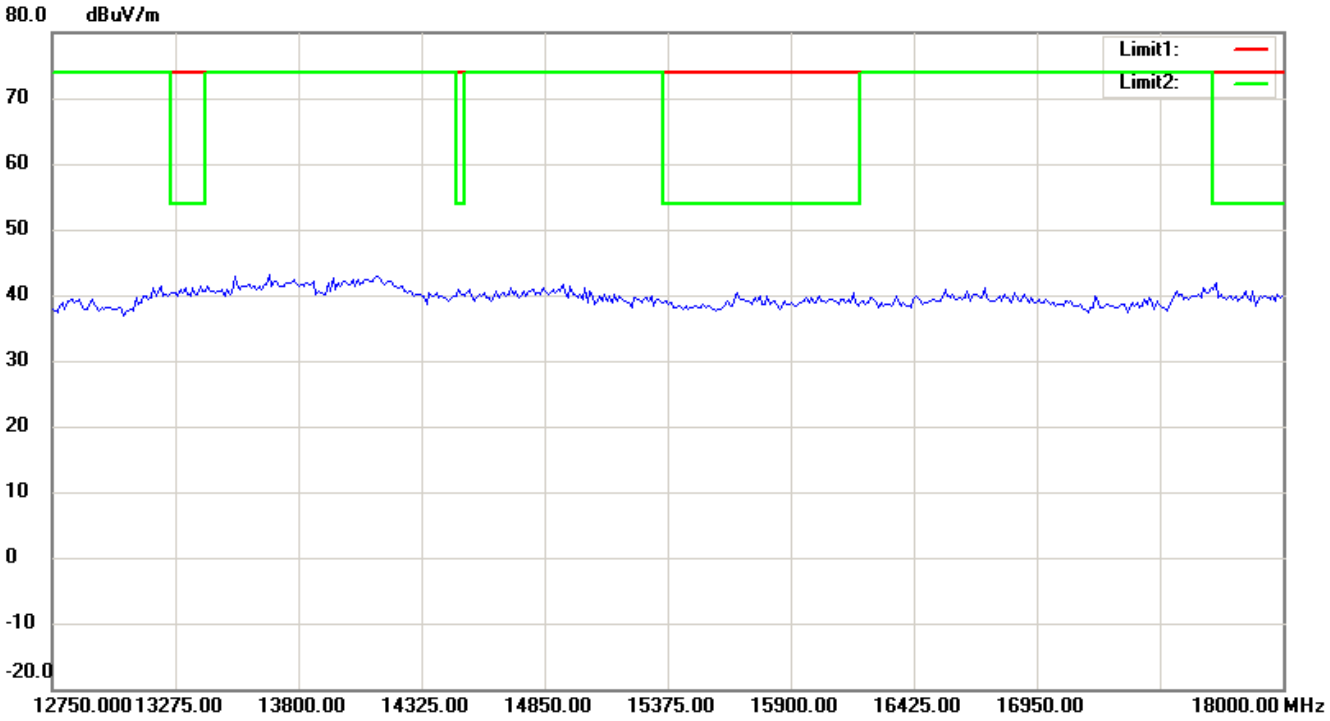


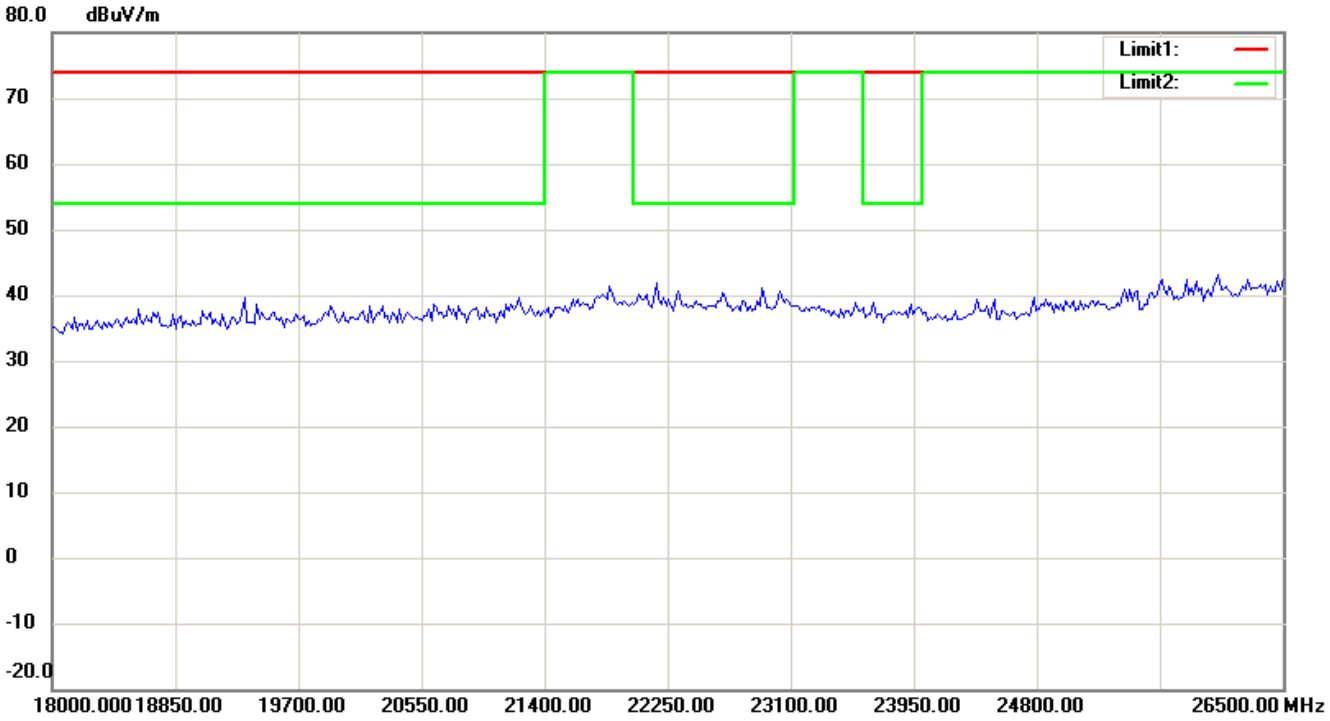




**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



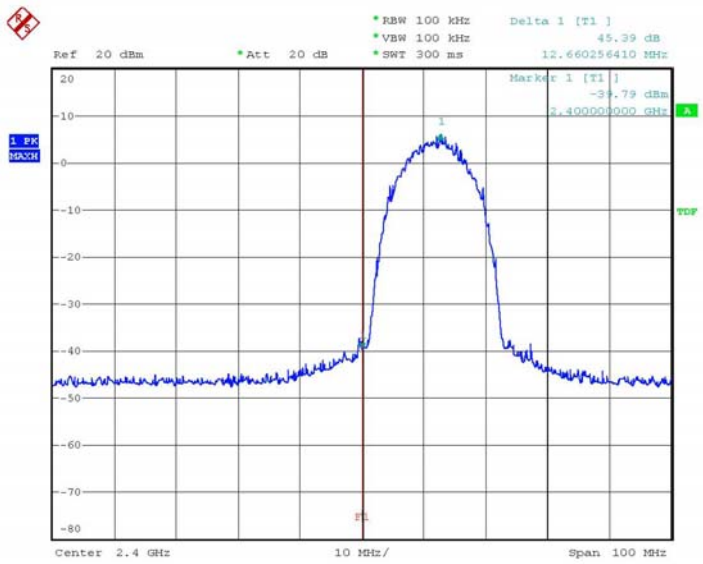

**Note:**
**Up Line: Peak Limit Line, Down Line: Ave Limit Line**

1. **The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
2. **The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
3. **For corrected test results are listed in the relevant table of radiated test data of this test report.**

# Band Edge Measurement

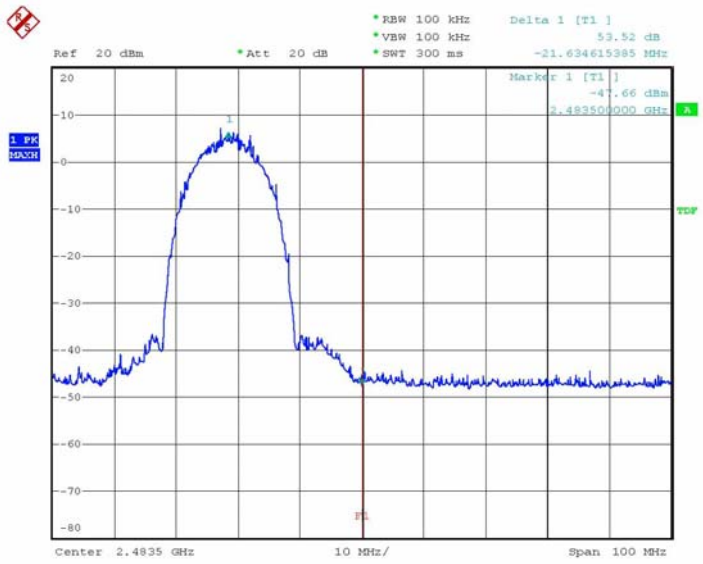
## 802.11b

### Channel 1



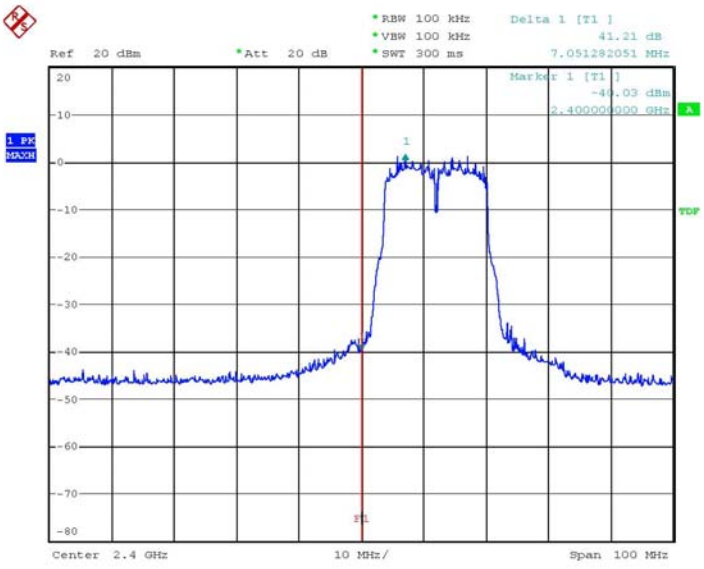

BANDEDGE 802.11b CH1
Date: 16.NOV.2010 15:00:23

### Channel 11



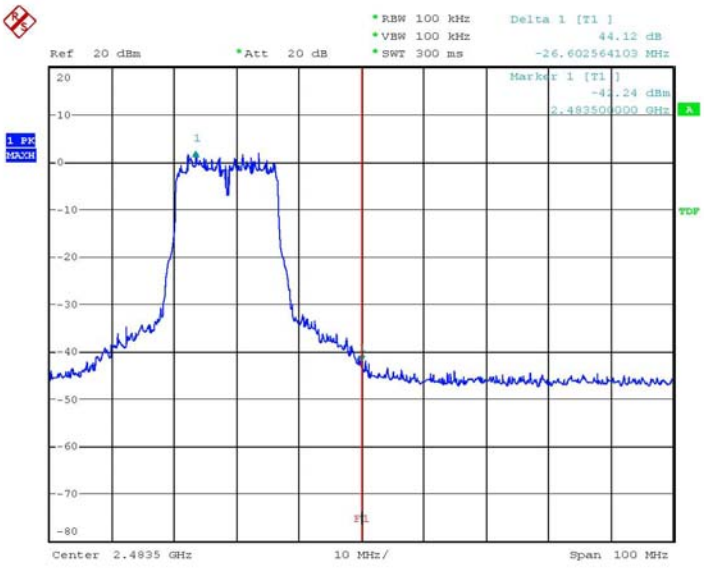

BANDEDGE 802.11b CH11
Date: 16.NOV.2010 15:04:34

802.11g
Channel 1




BANDEDGE 802.11g CH1
Date: 16.NOV.2010 15:01:07

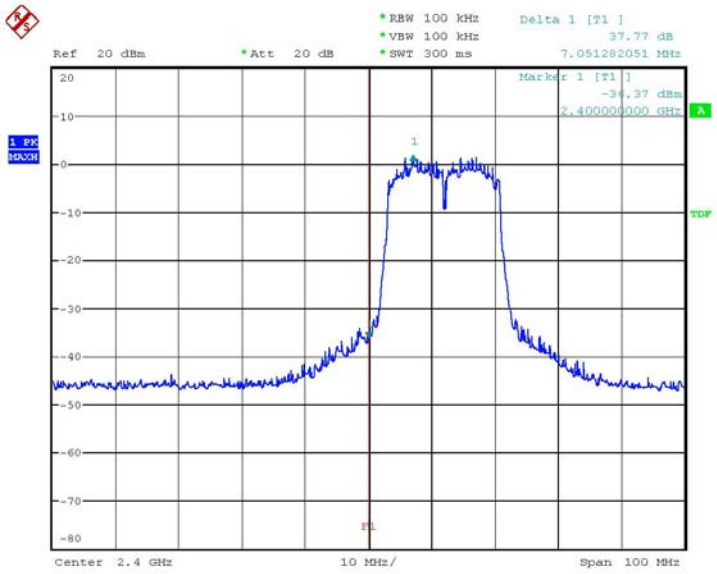
Channel 11




BANDEDGE 802.11g CH11
Date: 16.NOV.2010 15:03:54

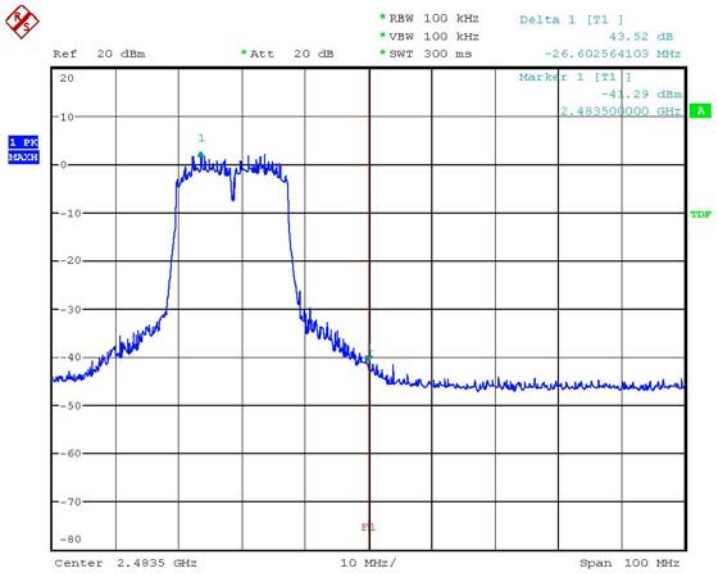
802.11n

Channel 1




BANDEDGE 802.11n CH1
Date: 16.NOV.2010 15:02:27

Channel 11

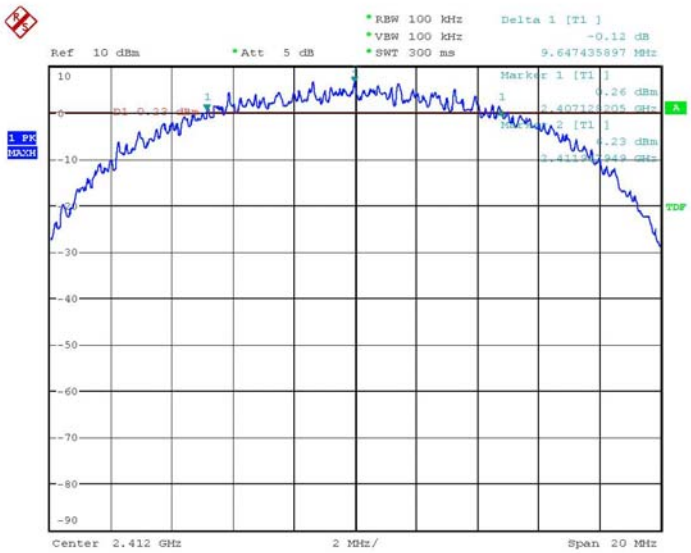



BANDEDGE 802.11n CH11
Date: 16.NOV.2010 15:03:14

# Minimum 6dB Bandwidth

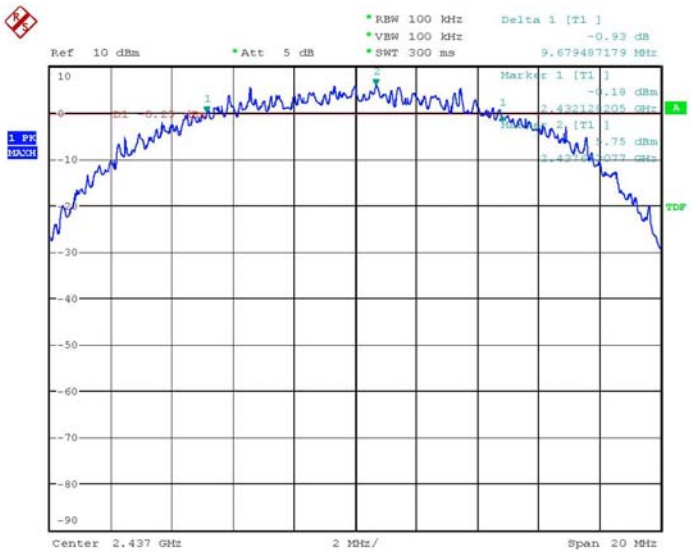
## 802.11b

### Channel 1




6DB BANDWIDTH 802.11b CH1
Date: 16.NOV.2010 16:13:36

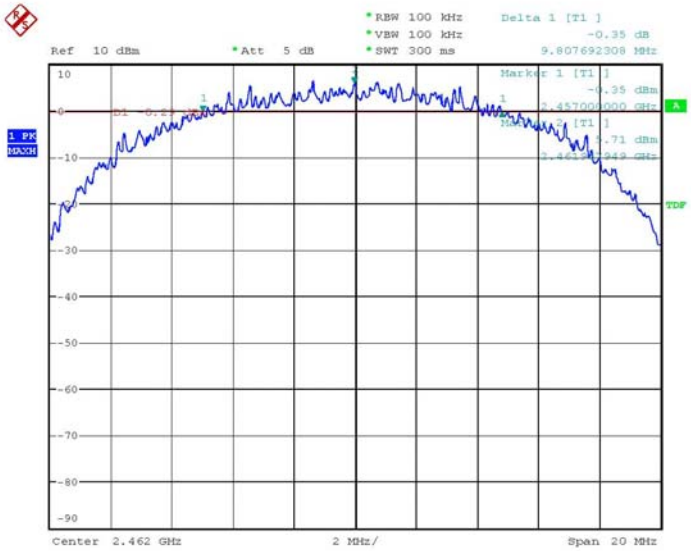
### Channel 6




6DB BANDWIDTH 802.11b CH6
Date: 16.NOV.2010 16:12:44

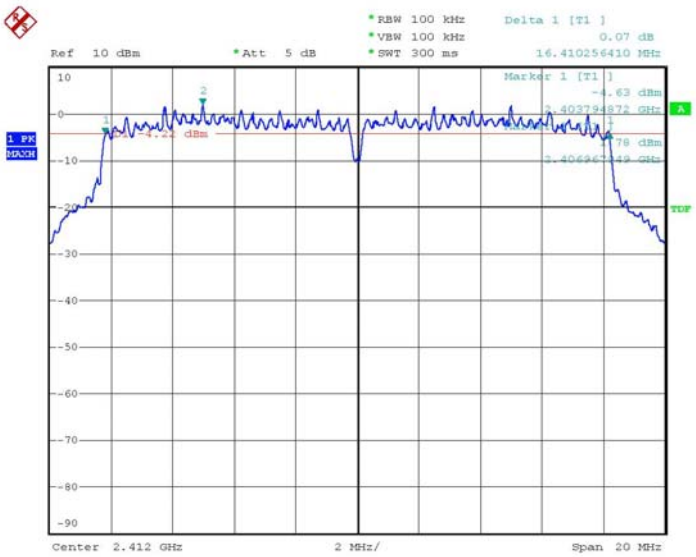
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

Channel 11




6DB BANDWIDTH 802.11b CH11
Date: 16.NOV.2010 16:11:32

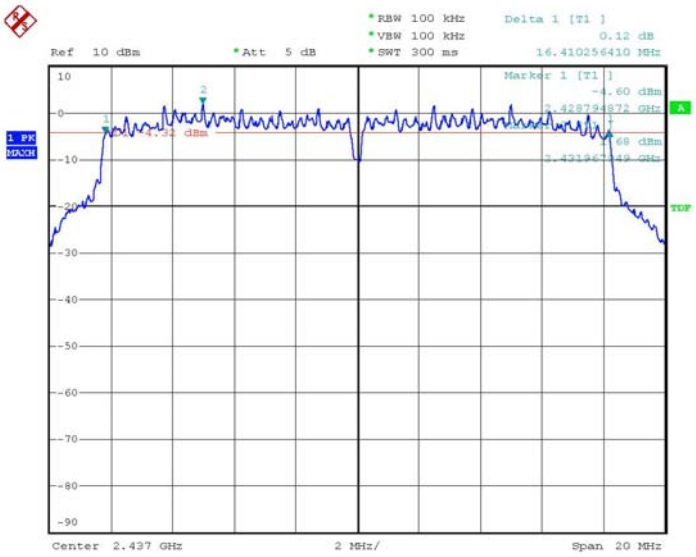
802.11g
Channel 1




6DB BANDWIDTH 802.11g CH1
Date: 16.NOV.2010 16:02:51

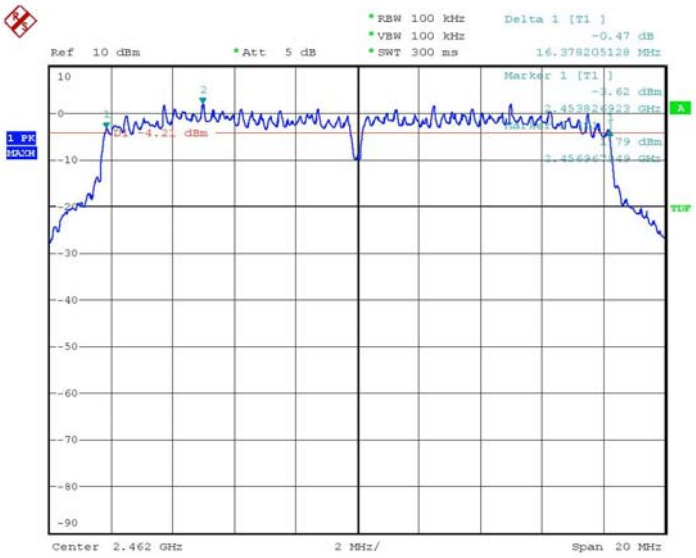
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

## Channel 6




6DB BANDWIDTH 802.11g CH6
Date: 16.NOV.2010 16:08:36

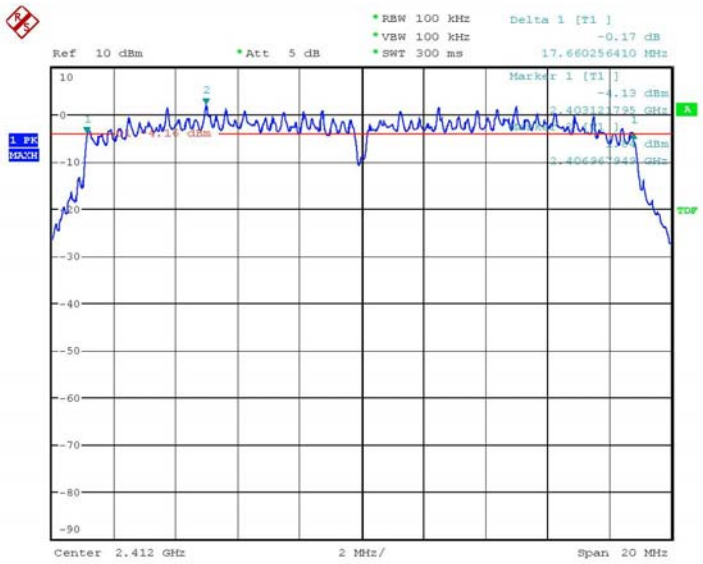
## Channel 11




6DB BANDWIDTH 802.11g CH11
Date: 16.NOV.2010 16:10:07

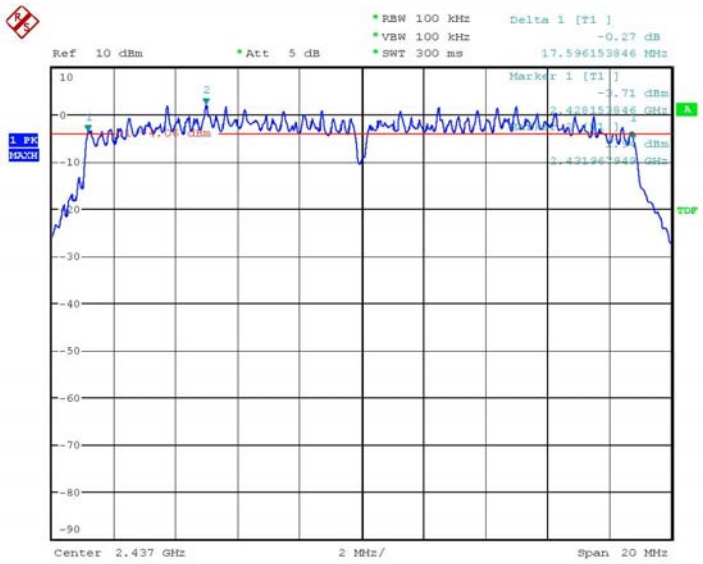
802.11n

Channel 1




6DB BANDWIDTH 802.11n CH1
Date: 16.NOV.2010 16:01:17

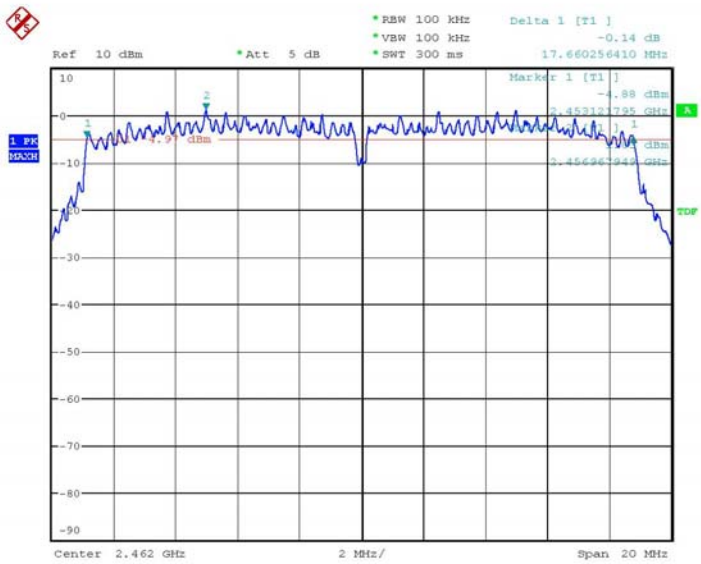
Channel 6




6DB BANDWIDTH 802.11n CH6
Date: 16.NOV.2010 16:00:19

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

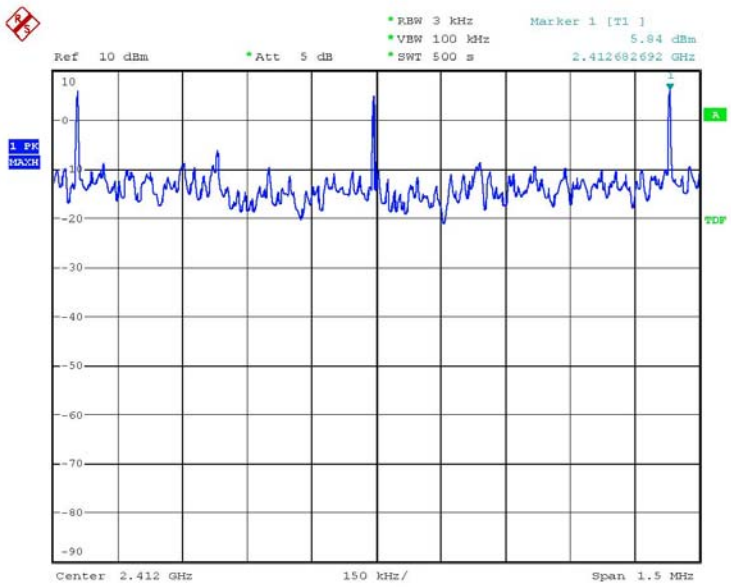
## Channel 11




6DB BANDWIDTH 802.11n CH1
Date: 16.NOV.2010 15:58:30

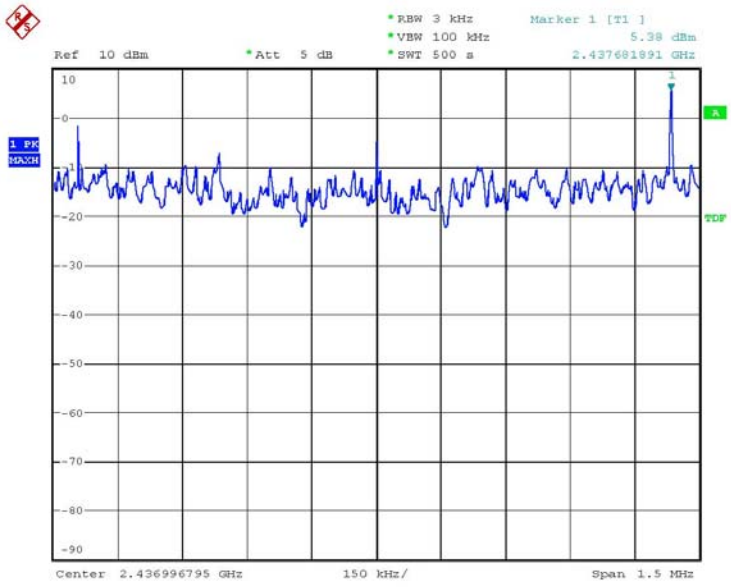
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

# Peak Power Spectral Density
## 802.11b
## Channel 1




POWER DENSITY 802.11b CH1
Date: 16.NOV.2010 16:19:44

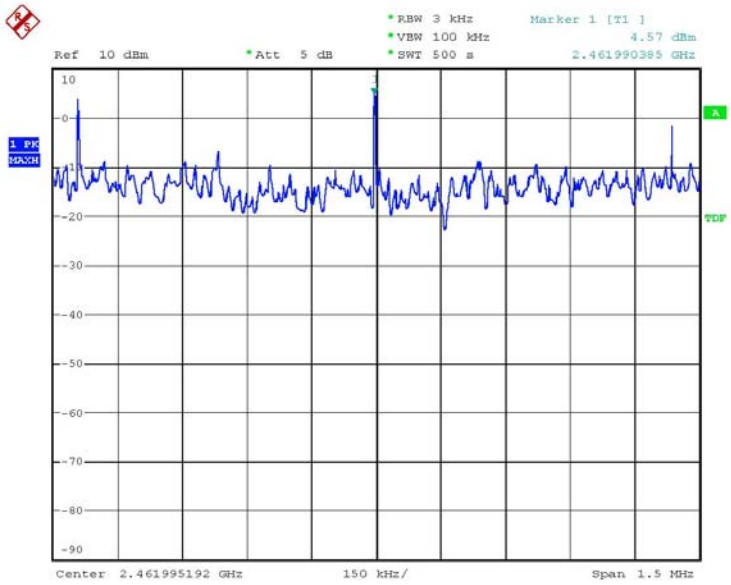
## Channel 6




POWER DENSITY 802.11b CH6
Date: 16.NOV.2010 16:22:23

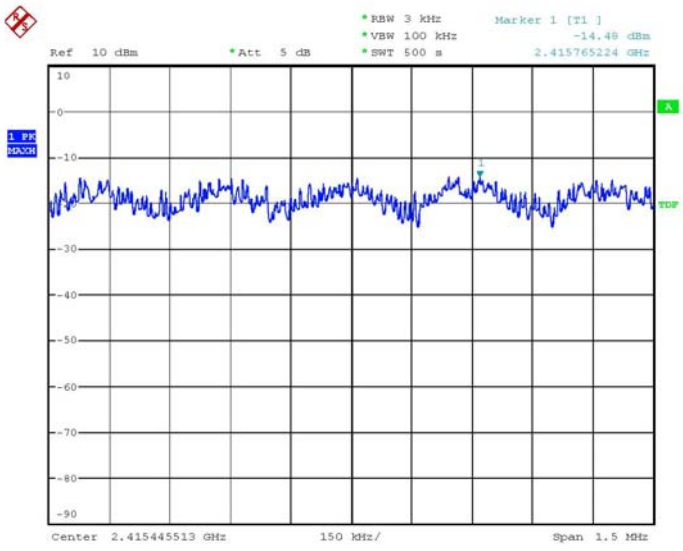
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

Channel 11




POWER DENSITY 802.11b CH11
Date: 16.NOV.2010 16:23:50

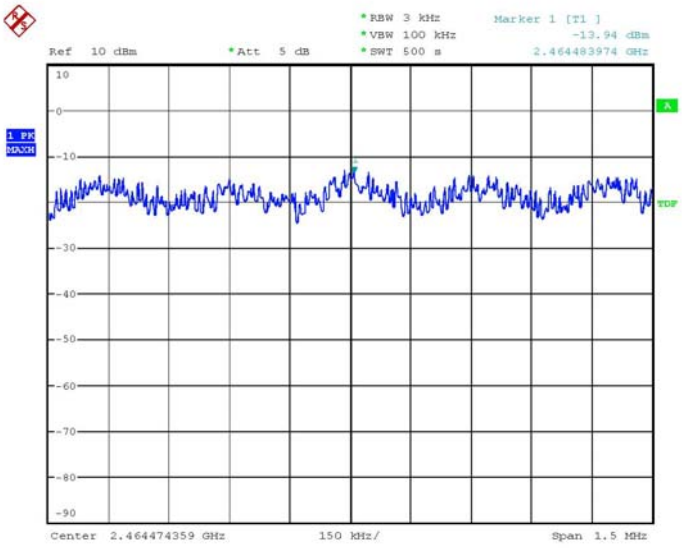
802.11g
Channel 1




POWER DENSITY 802.11g CH1
Date: 16.NOV.2010 16:28:52

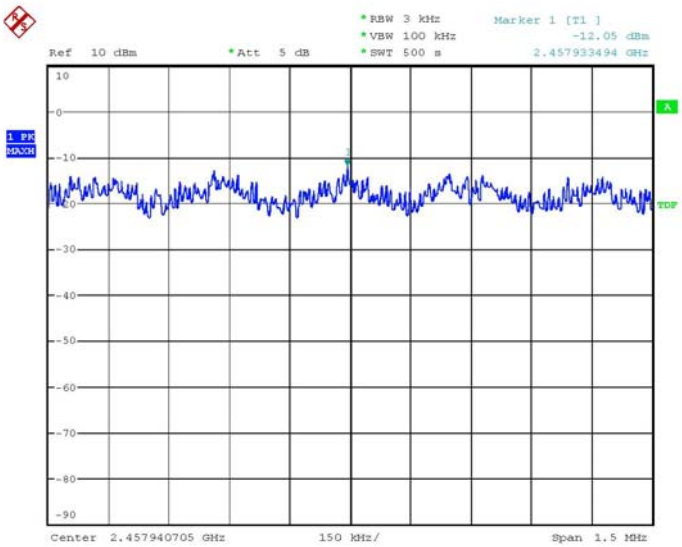
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

## Channel 6




POWER DENSITY 802.11g CH6
Date: 16.NOV.2010 16:26:17

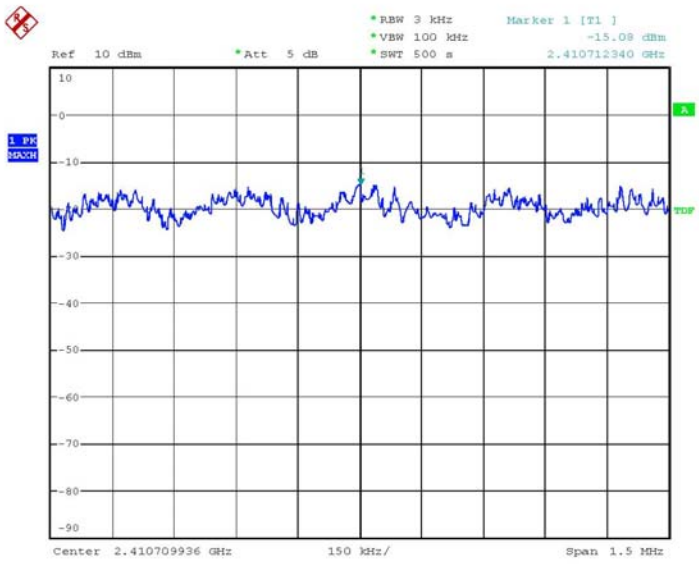
## Channel 11




POWER DENSITY 802.11g CH11
Date: 16.NOV.2010 16:25:11

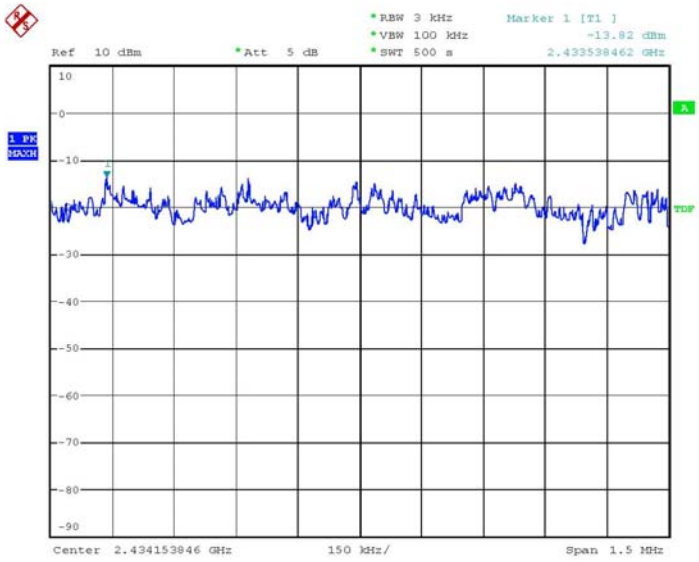
802.11n

Channel 1




POWER DENSITY 802.11n CH1
Date: 16.NOV.2010 16:30:35

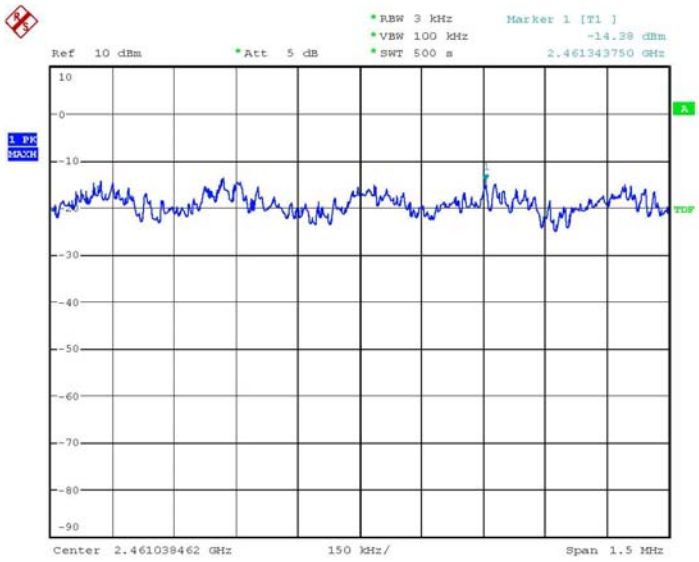
Channel 6




POWER DENSITY 802.11n CH6
Date: 16.NOV.2010 16:31:57

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

## Channel 11

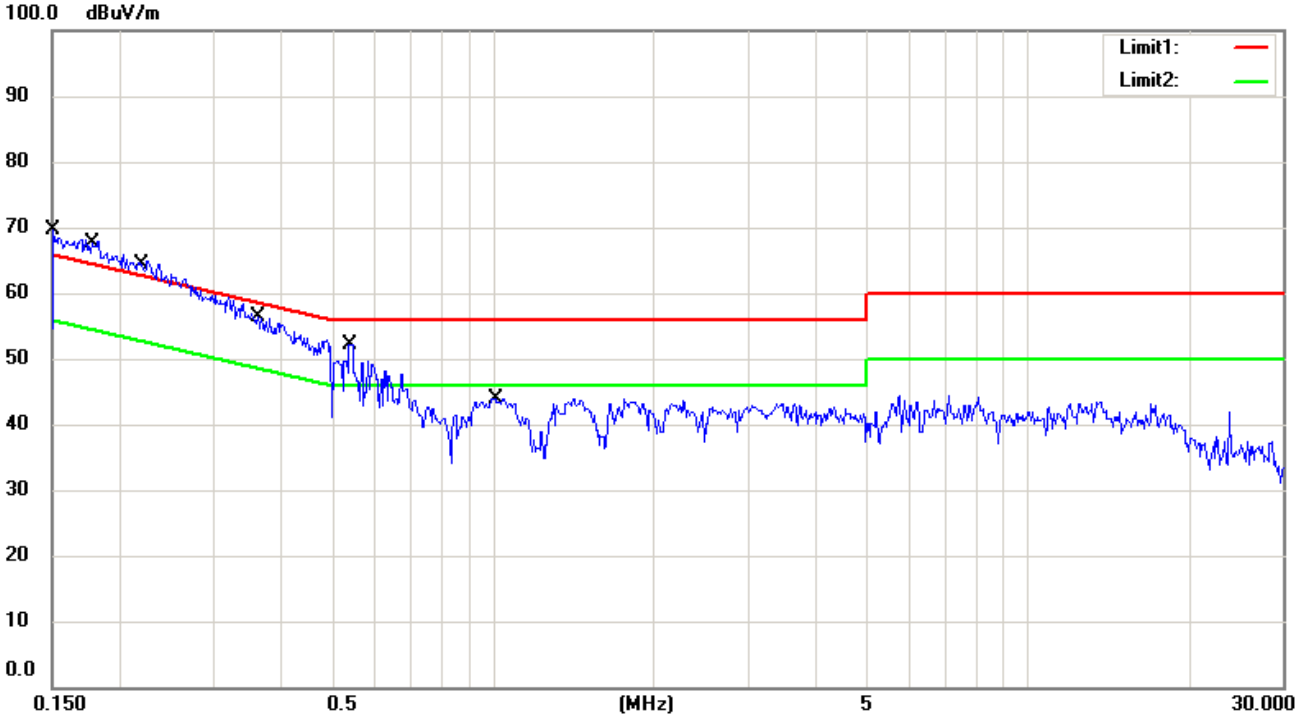



POWER DENSITY 802.11n CH11
Date: 16.NOV.2010 16:32:52

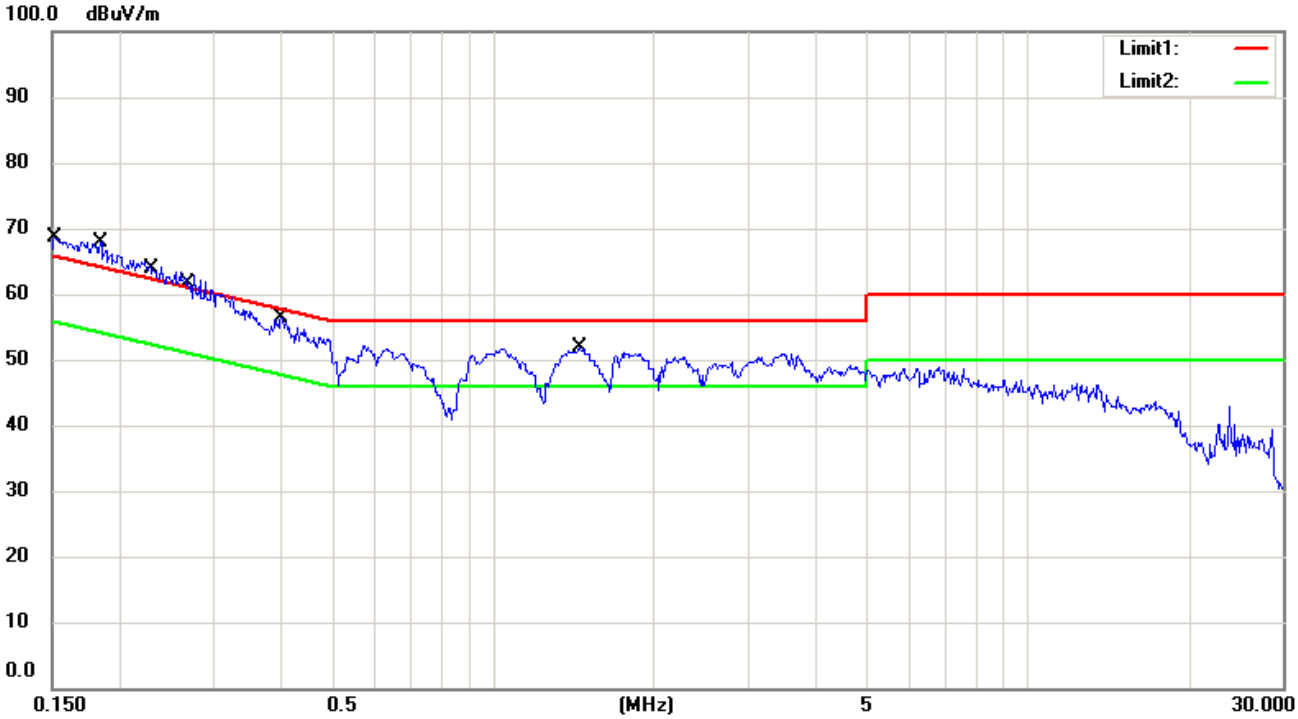
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

# Power Line Conducted Emission

## Polarization N




## Polarization L1




**Note:**
**Up Line: QP Limit Line, Down Line: Ave Limit Line**
**4. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.**
**5. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.**
**6. For corrected test results are listed in the relevant table of AC conducted test data of this test report.**

External Photos

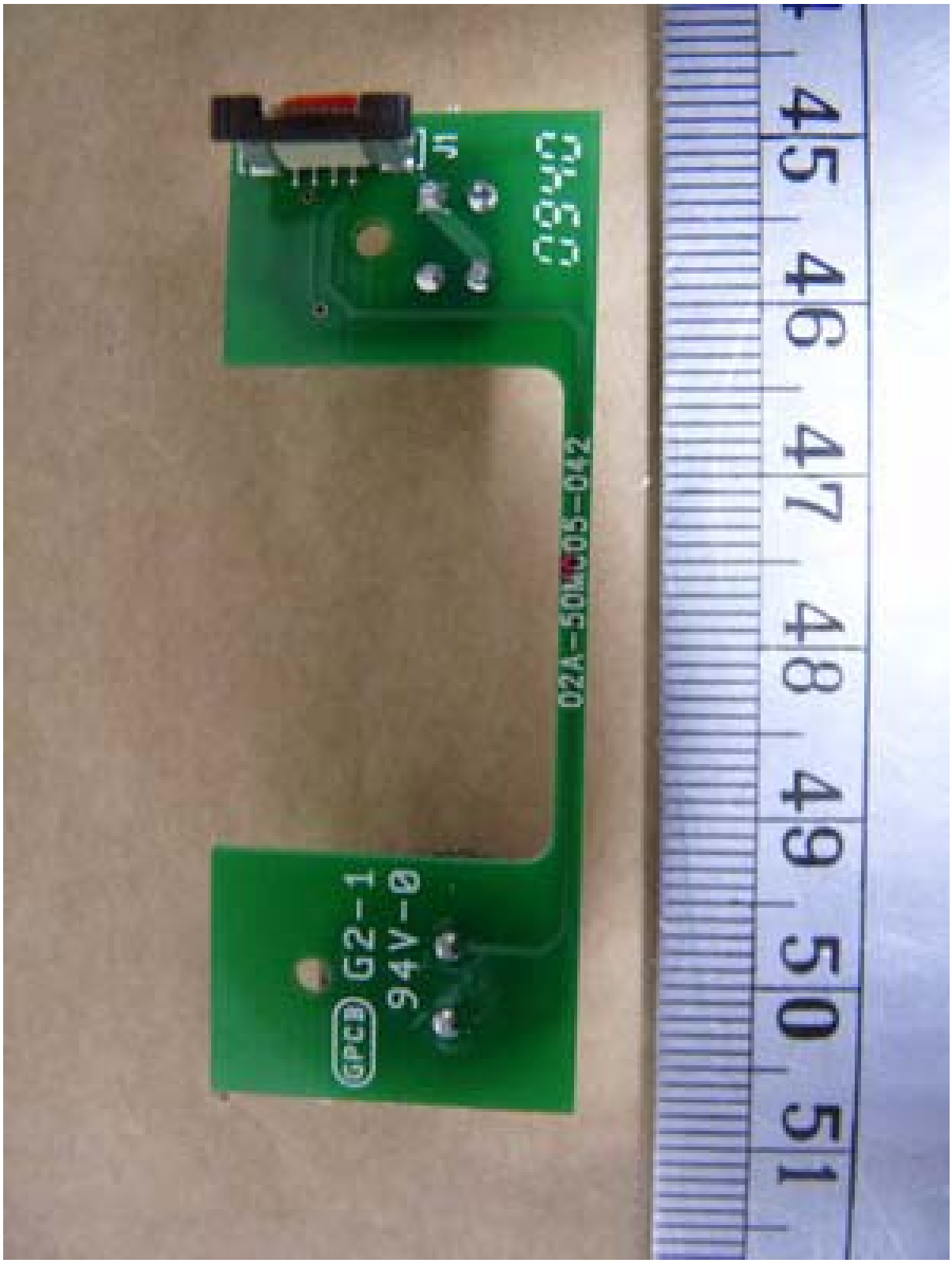
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

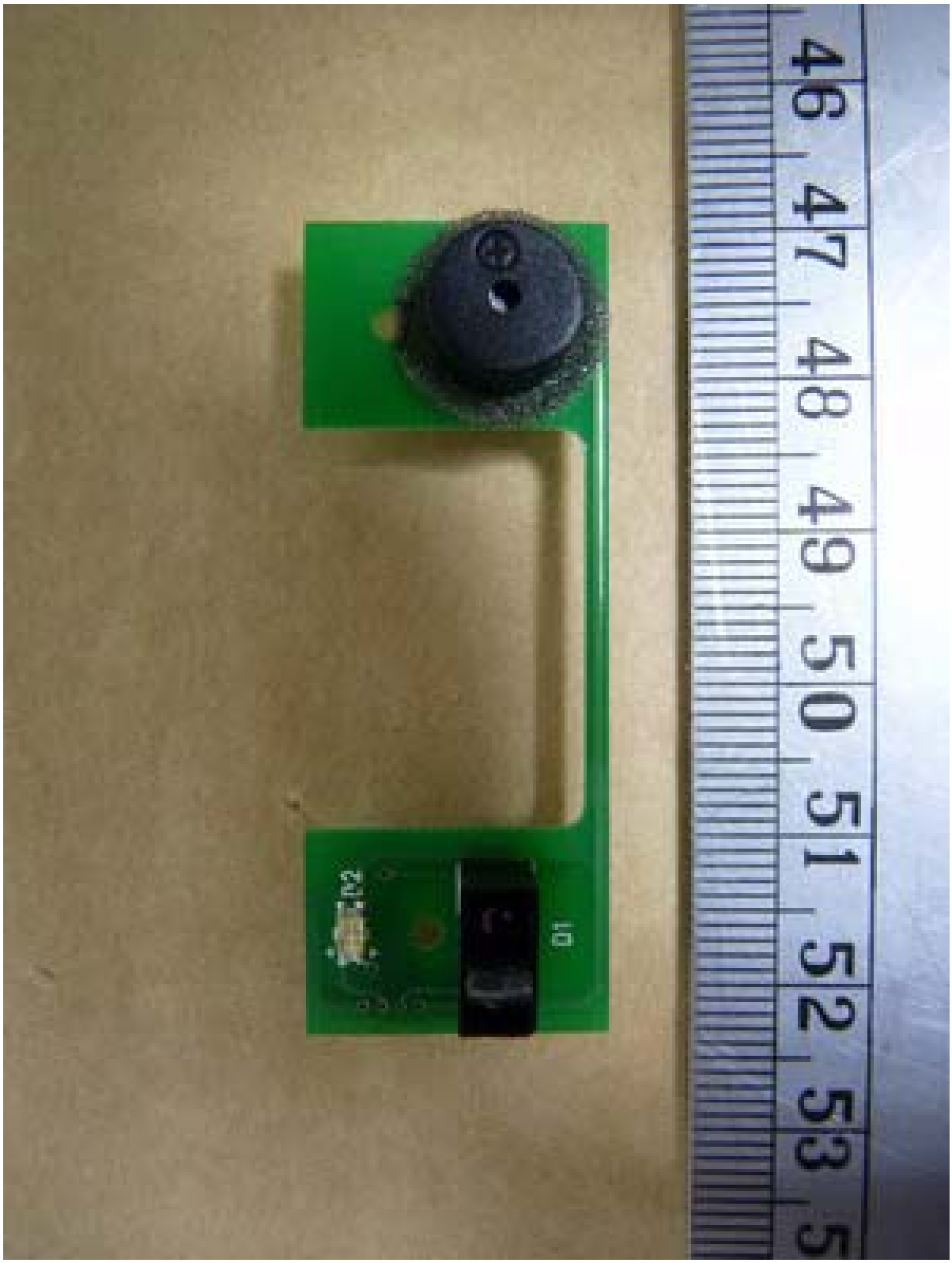
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

Multi-listing

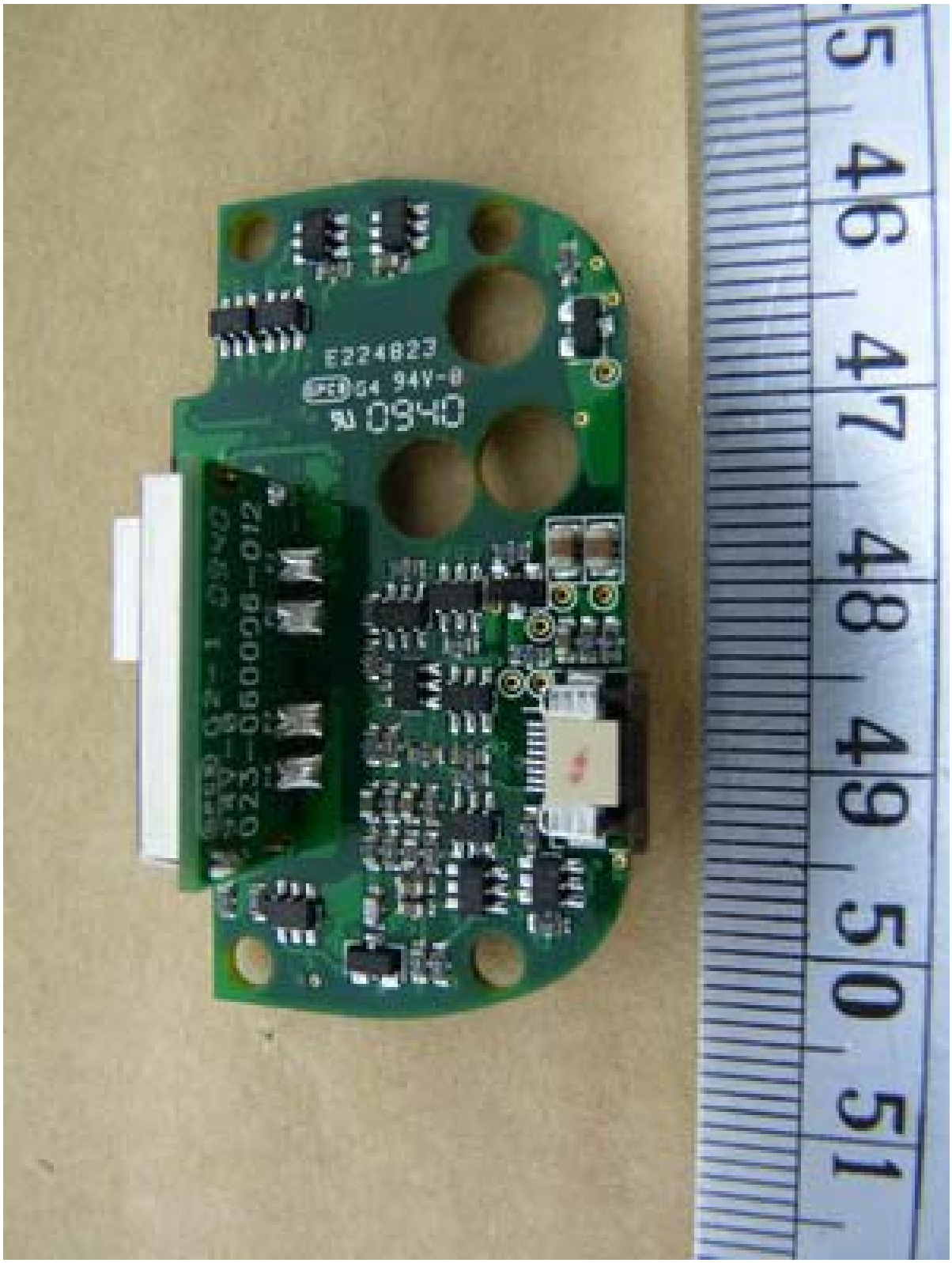
# Internal Photos

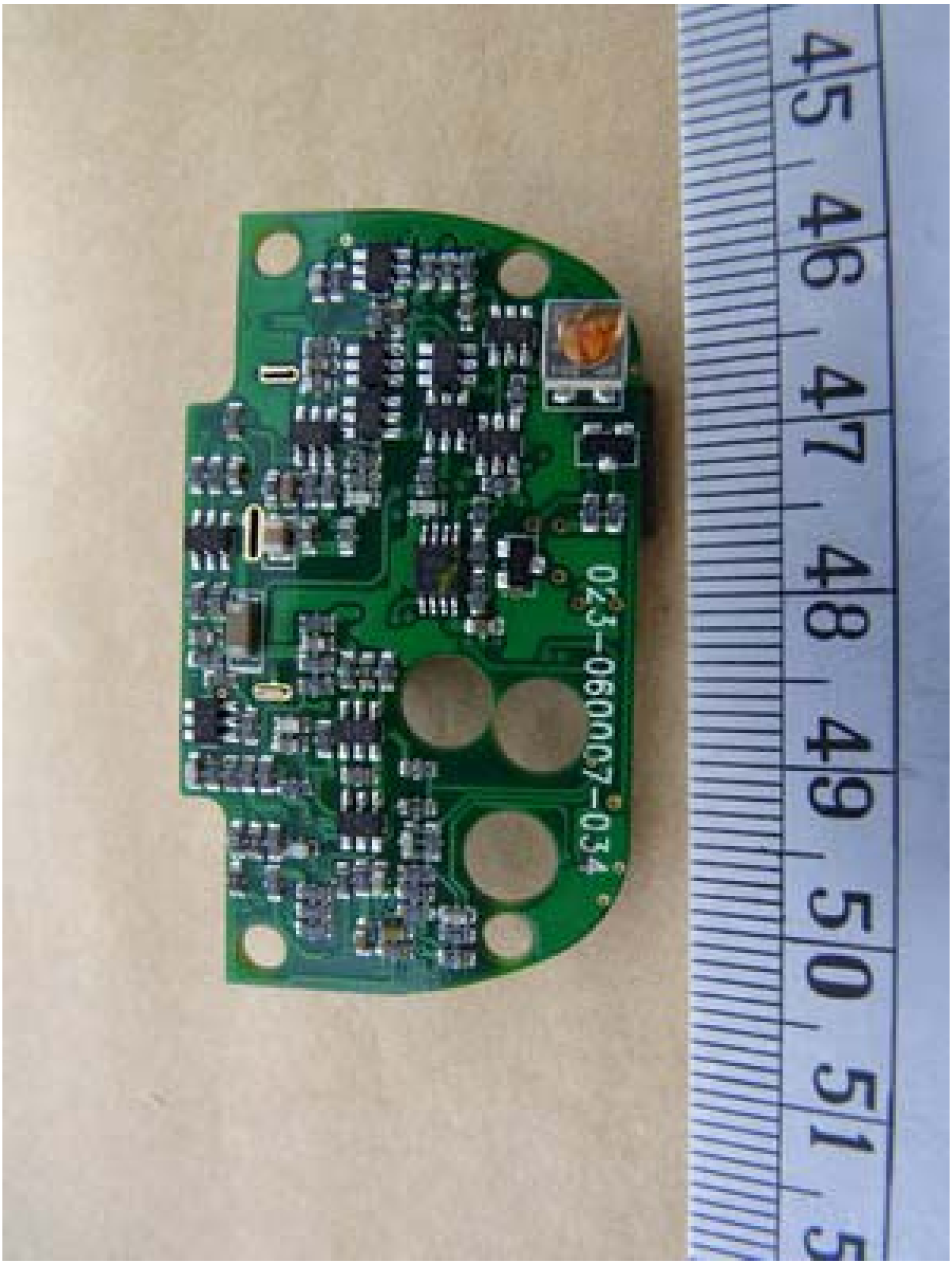
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100





Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100




023-060007-034
45
46
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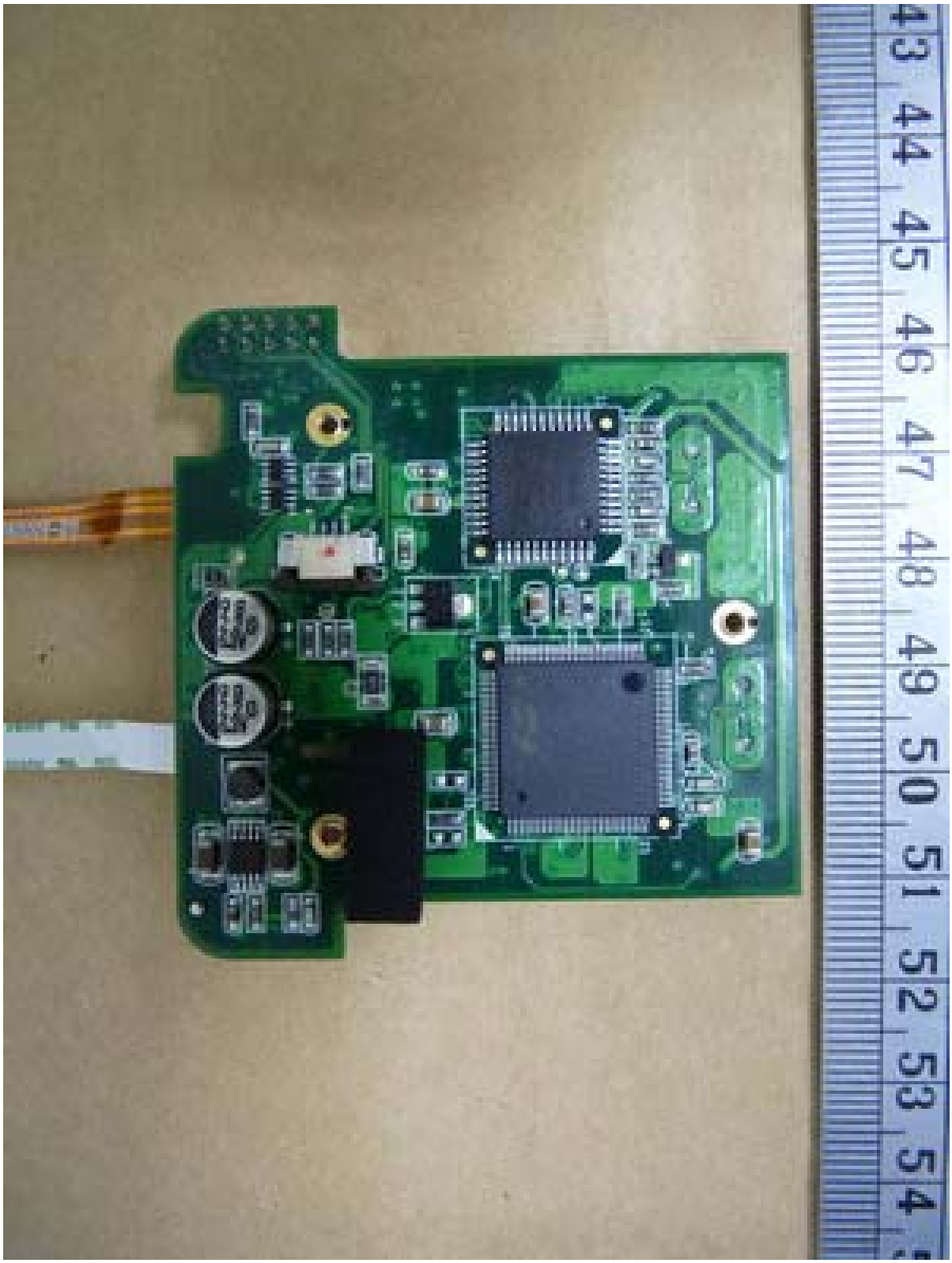
51

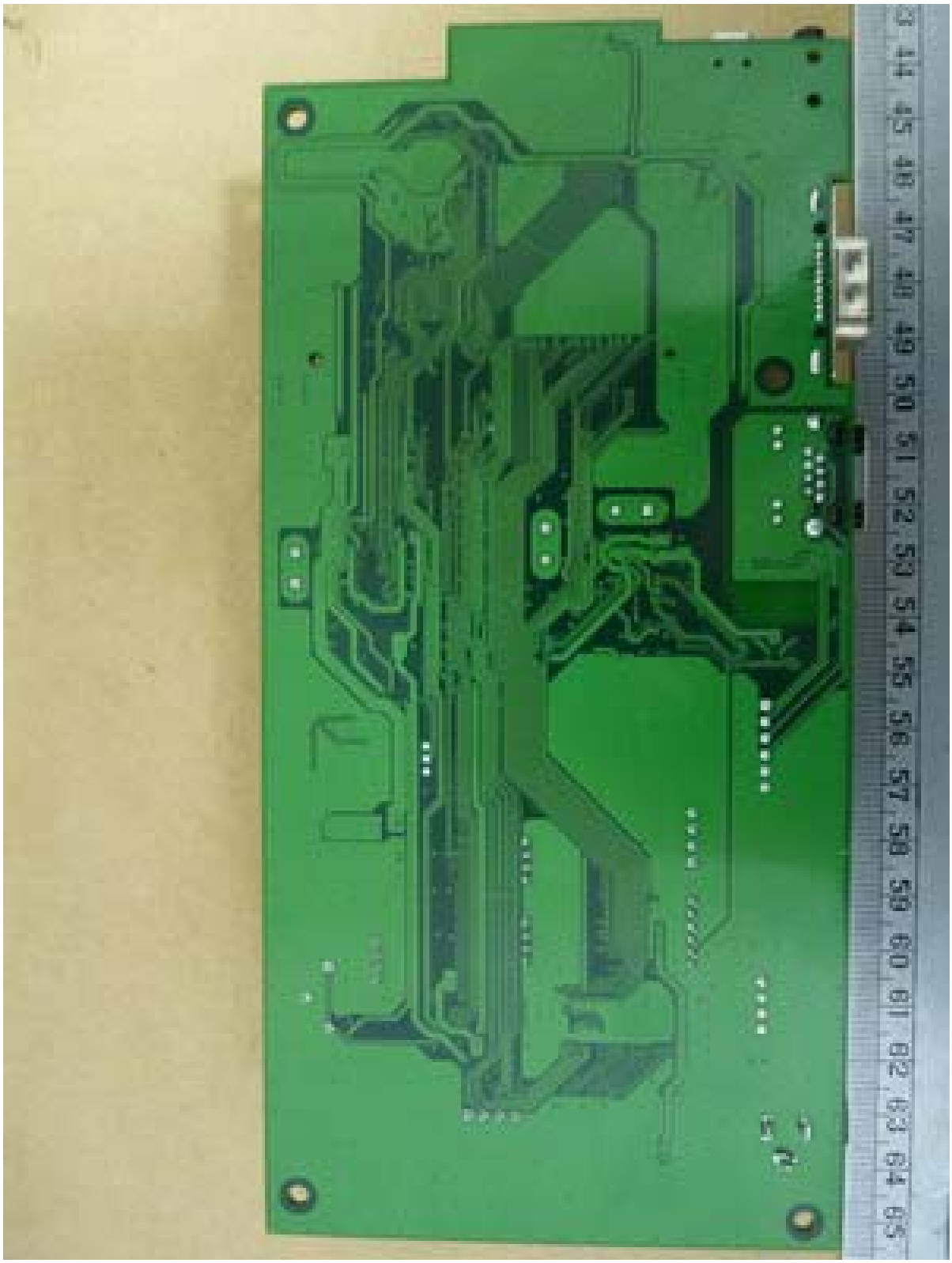


Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

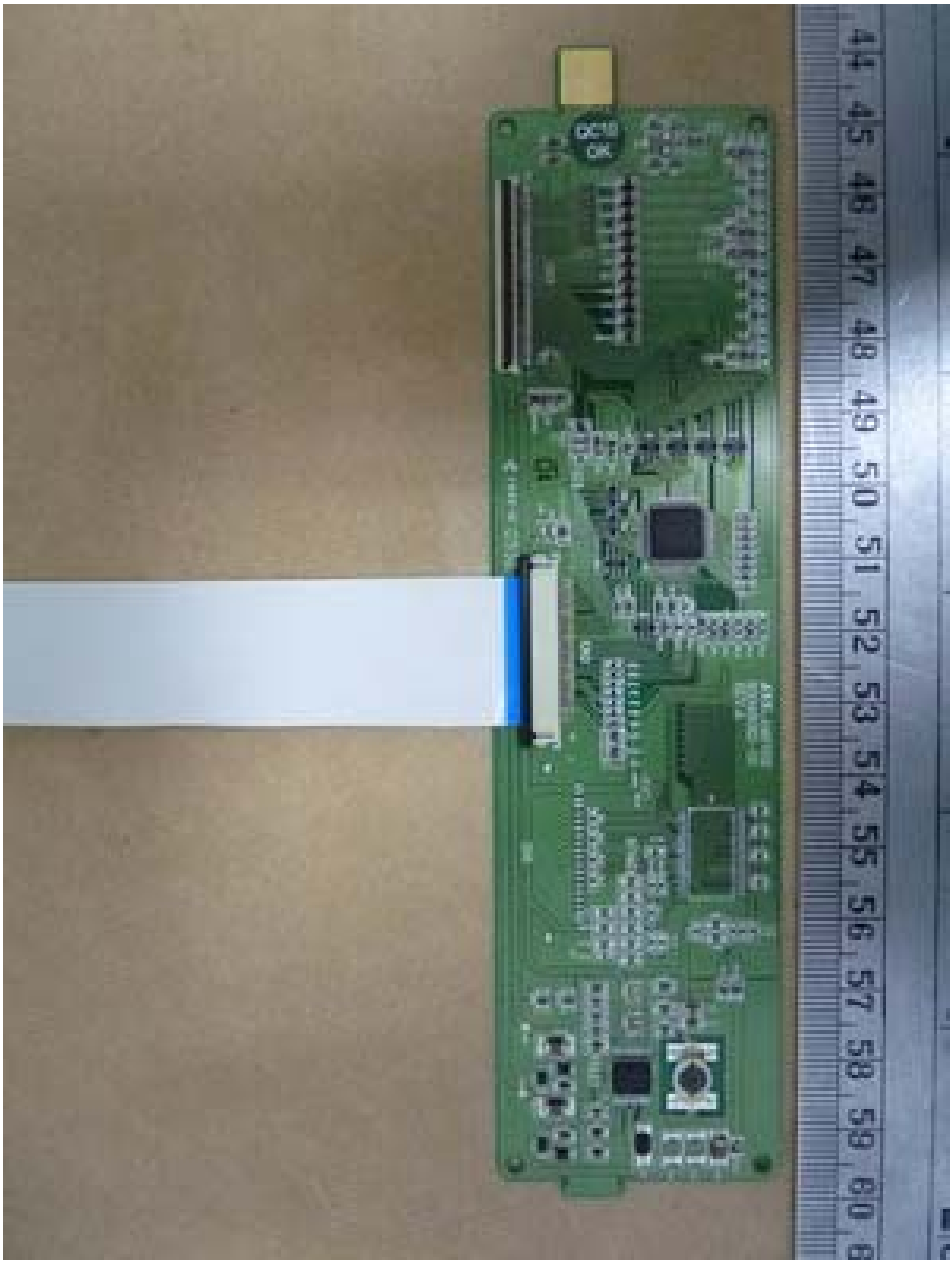
Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100


Rev:C0
SAMSUNG

Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

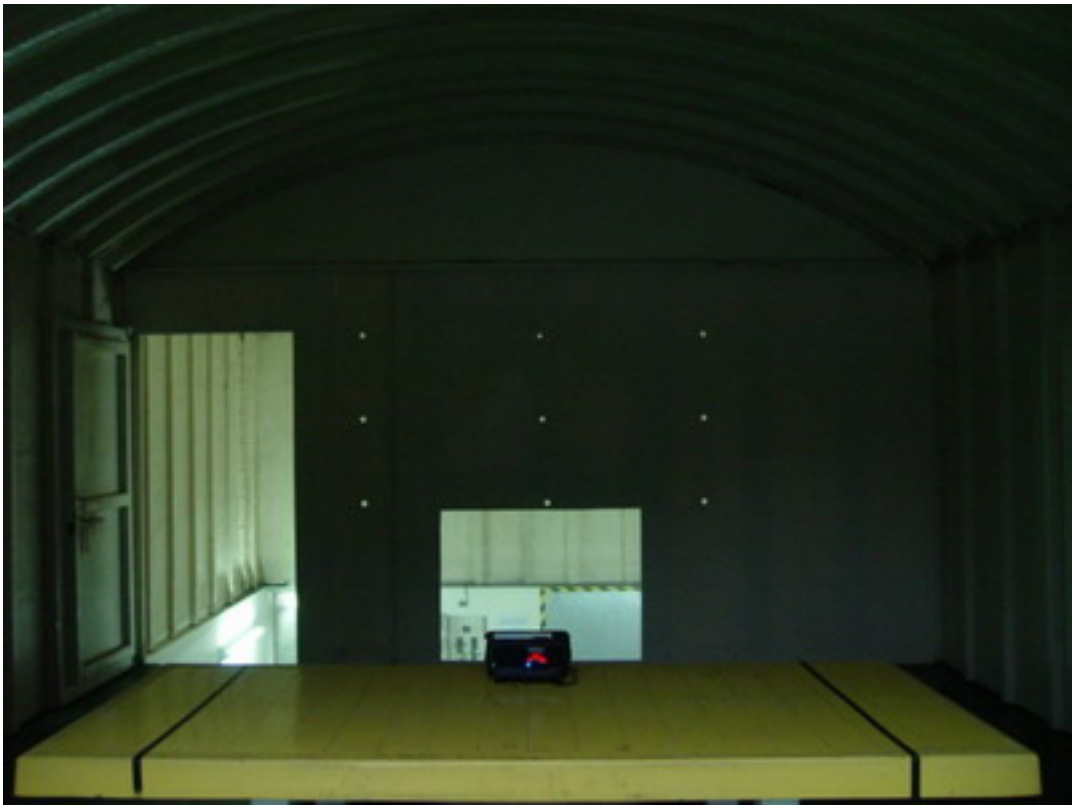


Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100



# Set Up Photo of Radiated Emission

## RF



Registration number: W6M21011-10996-C-1
FCC ID: Y2A-MK-100

# Set Up Photo of Conducted Emission