TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	**47 CFR FCC Part 15, Subpart C (Section 15.247)**
Report No.:	RFBARR-WTW-P23040352J
FCC ID:	RAS-MT7925B22M
Product:	2TX 11be (WiFi7) BW160 + BT/BLE Combo Card
Brand:	MediaTek
Model No.:	MT7925B22M
Received Date:	2024/3/12
Test Date:	2024/5/24 ~ 2024/5/27
Issued Date:	2024/6/13
Applicant:	MediaTek Inc.
Address:	No. 1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu City, 30078 Taiwan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

Approved by: Jeremy Lin , **Date:** 2024/6/13

Jeremy Lin / Project Engineer

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Prepared by : Vera Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P23040352J	Original Release	2024/6/13

1 Certificate

Product:	2TX 11be (WiFi7) BW160 + BT/BLE Combo Card
Brand:	MediaTek
Test Model:	MT7925B22M
Sample Status:	Engineering sample
Applicant:	MediaTek Inc.
Test Date:	2024/5/24 ~ 2024/5/27
Standard:	47 CFR FCC Part 15, Subpart C (Section 15.247)
Measurement procedure:	ANSI C63.10-2013 KDB 558074 D01 15.247 Meas Guidance v05r02 KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	N/A	Refer to Note 1
15.247(e)	Power Spectral Density	N/A	Refer to Note 1
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to Note 1
15.247(d)	Conducted Out of Band Emissions	N/A	Refer to Note 1
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -18.17 dB at 0.46200 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -1.0 dB at 297.72 and 298.69 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -3.53 dB at 4874.03 MHz
15.203	Antenna Requirement	Pass	Antenna connector is i-pex (MHF) / R-SMA / RP SMA PLUG / IPEX not a standard connector.

Note:
1. Only test item of AC Power Conducted Emissions and Unwanted Emissions were performed for this report. Other testing data please refer to BV CPS report no.: RFBARR-WTW-P23040352.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Parameter	Specification	Expanded Uncertainty (k=2) (±)
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.79 dB
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.59 dB
	30 MHz ~ 1 GHz	3.6 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description

Product	2TX 11be (WiFi7) BW160 + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7925B22M
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDM in VHT mode 4096QAM for OFDMA in 11ax mode 4096QAM for OFDMA in 11be mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 300Mbps VHT: up to 400Mbps 802.11ax: up to 573.5Mbps 802.11be: up to 688.2Mbps
Operating Frequency	2.412 GHz ~ 2.472 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20), 802.11be (EHT20): 13 802.11n (HT40), VHT40, 802.11ax (HE40), 802.11be (EHT40): 9
Resource Unit (RU)	Single RU: 26-tone, 52-tone, 106-tone, 242-tone, 484-tone Multi-RU (Small RU): 52-tone + 26-tone, 106-tone + 26-tone
Output Power	1TX: 263.633 mW (24.21 dBm) 2TX: 400.635 mW (26.03 dBm)

Note:

1. This report is issued as a supplementary report of BV CPS report no.: RFBARR-WTW-P23040352. The difference compared with the original report is adding antenna 7. Therefore, only AC Power Conducted Emissions and Unwanted Emissions were performed and recorded in this report. Other testing data please refer to original report.
2. The EUT has two SKU are listed as below table.

Item	Different
SKU 1	DVDDIO 3.3V, power from platform.
SKU 2	DVDDIO 1.8V, power from IC PMU. (Power Management Unit).

*SKU 1 was chosen as a representative test.

3. There are Bluetooth and WLAN (2.4GHz & 5GHz & 6GHz) technology used for the EUT.

4. The EUT support RU mode is listed as below.

BW	52+26	106+26
20MHz	v	v
40MHz	v	v

5. Simultaneously transmission condition.

Condition	Technology	
1	WLAN 2.4GHz (1TX)	WLAN 5GHz (1TX)
2	WLAN 2.4GHz (1TX)	WLAN 5.9GHz (1TX)
3	WLAN 2.4GHz (1TX)	WLAN 6GHz (1TX)
4	WLAN 5GHz (1TX)	WLAN 6GHz (1TX)
5	WLAN 5GHz (2TX)	Bluetooth
6	WLAN 5.9GHz (2TX)	Bluetooth
7	WLAN 6GHz (2TX)	Bluetooth
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

6. The EUT support OFDMA and RU mode, therefore partial RU combination were investigated and the worst case scenario was identified. (The worst case data were presented in section 3.4)

7. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below. (Antenna 7 was chosen for the final test.)

Original

Ant. No.	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency range	Antenna Type	Connector Type
1	Chain0	PSA	RFMTA340718 EMLB302	3.18 4.92	2.4~2.4835 GHz 5.15~5.85 GHz	PIFA	i-pex (MHF)
	Chain1	PSA	RFMTA340718 EMLB302	3.18 4.92	2.4~2.4835 GHz 5.15~5.85 GHz	PIFA	i-pex (MHF)
2	Chain0	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 GHz 5.15~5.85 GHz 5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	PIFA	i-pex (MHF)
	Chain1	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 GHz 5.15~5.85 GHz 5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	PIFA	i-pex (MHF)
3	Chain0	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	PIFA	i-pex (MHF)
	Chain1	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	PIFA	i-pex (MHF)
4	Chain0	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 GHz 5.15~5.85 GHz	Dipole	R-SMA
	Chain1	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 GHz 5.15~5.85 GHz	Dipole	R-SMA
5	Chain0	VSO	JR2Q00340-1	1.62 3.2 3.93 3.61 3.61 3.14	2.4~2.4835 GHz 5.15~5.895 GHz 5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	Dipole	RP SMA PLUG
	Chain1	VSO	JR2Q00340-1	1.62 3.2 3.93 3.61 3.61 3.14	2.4~2.4835 GHz 5.15~5.895 GHz 5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	Dipole	RP SMA PLUG
6	Chain0	PSA	RFPCA460632IMMB701	-13.2 -13.67 -13.67 -13.09	5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	Dipole	IPEX
	Chain1	PSA	RFPCA460632IMMB701	-13.2 -13.67 -13.67 -13.09	5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	Dipole	IPEX

Newly

Ant. No.	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency range	Antenna Type	Connector Type
7	Chain0	HongBo	260-25096	3.11 4.88 4.91 4.9 4.9 4.87 4.73 4.29 4.58 4.09	2.4~2.4835 GHz 5.15~5.25 GHz 5.25~5.35 GHz 5.47~5.725 GHz 5.725~5.85 GHz 5.85~5.895 GHz 5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	Monopole	i-pex (MHF)
	Chain1	HongBo	260-25096	3.11 4.88 4.91 4.9 4.9 4.87 4.73 4.29 4.58 4.09	2.4~2.4835 GHz 5.15~5.25 GHz 5.25~5.35 GHz 5.47~5.725 GHz 5.725~5.85 GHz 5.85~5.895 GHz 5.925~6.425 GHz 6.425~6.525 GHz 6.525~6.875 GHz 6.875~7.125 GHz	Monopole	i-pex (MHF)

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

* For 1TX diversity configuration, transmit chain 0 and chain 1 have been evaluated, the chain 1 was the worst case and chosen for representative test.

2. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	1TX/2TX	1RX/2RX
802.11g	1TX/2TX	1RX/2RX
802.11n (HT20)	1TX/2TX	1RX/2RX
802.11n (HT40)	1TX/2TX	1RX/2RX
VHT20	1TX/2TX	1RX/2RX
VHT40	1TX/2TX	1RX/2RX
802.11ax (HE20)	1TX/2TX	1RX/2RX
802.11ax (HE40)	1TX/2TX	1RX/2RX
802.11be (EHT20)	1TX/2TX	1RX/2RX
802.11be (EHT40)	1TX/2TX	1RX/2RX
802.11ax (RU26/52/106)	1TX/2TX	1RX/2RX
802.11be (RU26/52/106/52+26/106+26)	1TX/2TX	1RX/2RX
Note: The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz), 802.11ax mode for 20 MHz (40 MHz) and 802.11be mode for 20 MHz (40 MHz) therefore the manufacturer will control the power for 802.11n/VHT/ax mode is same as the 802.11be mode or more lower than it and investigated worst case to representative mode in test report.		

3.3 Channel List

13 channels are provided for 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20), 802.11be (EHT20):

Channel	Frequency	Channel	Frequency
1	2412 MHz	8	2447 MHz
2	2417 MHz	9	2452 MHz
3	2422 MHz	10	2457 MHz
4	2427 MHz	11	2462 MHz
5	2432 MHz	12	2467 MHz
6	2437 MHz	13	2472 MHz
7	2442 MHz		

9 channels are provided for 802.11n (HT40), VHT40, 802.11ax (HE40), 802.11be (EHT40):

Channel	Frequency	Channel	Frequency
3	2422 MHz	8	2447 MHz
4	2427 MHz	9	2452 MHz
5	2432 MHz	10	2457 MHz
6	2437 MHz	11	2462 MHz
7	2442 MHz		

3.4 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode:	Mode A: EUT only (w/o antenna) Mode B: EUT with 50 ohm terminator

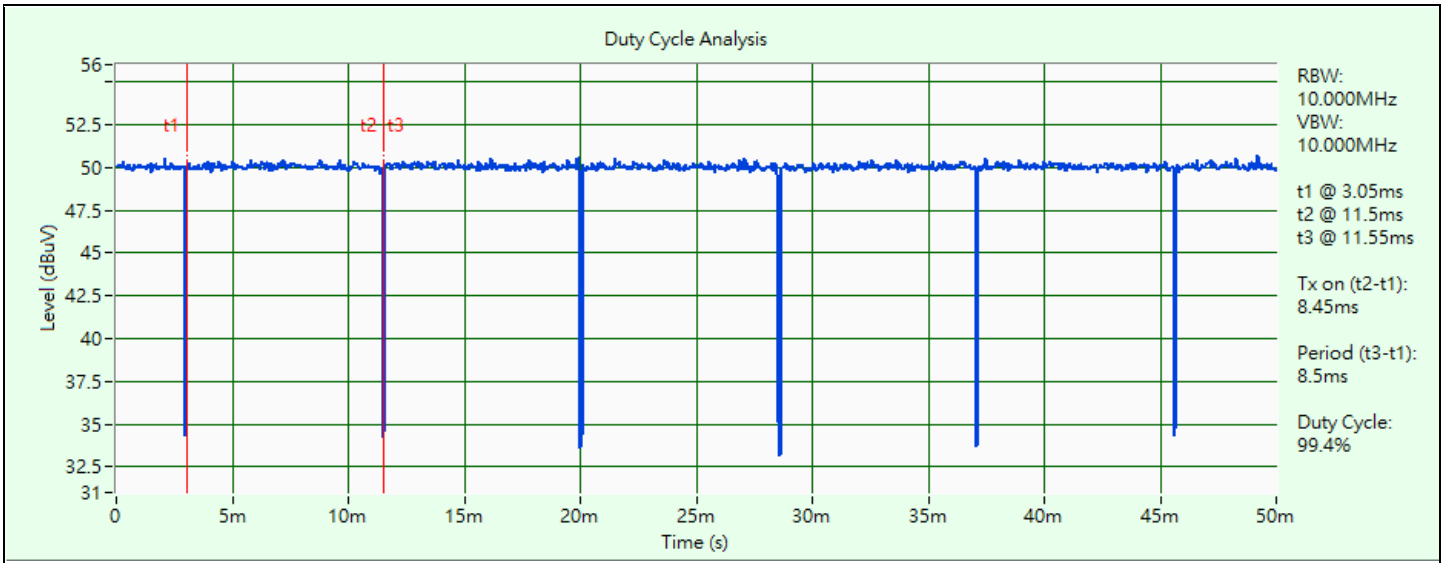
Following channel(s) was (were) selected for the final test as listed below:

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate
AC Power Conducted Emissions	B	802.11b	1T / 2T	6	DBPSK	1Mb/s
Unwanted Emissions below 1 GHz	A (Conducted measurement)	802.11b	1T / 2T	6	DBPSK	1Mb/s
	B (Radiated measurement)	802.11b	1T / 2T	6	DBPSK	1Mb/s
Unwanted Emissions above 1 GHz	A (Conducted measurement),	802.11b	1T / 2T	1, 6, 11, 12, 13	DBPSK	1Mb/s
	B (Radiated measurement)	802.11b	1T / 2T	1, 6, 11, 12, 13	DBPSK	1Mb/s

3.5 Duty Cycle of Test Signal

2TX

802.11b: Duty cycle = 8.45 ms / 8.5 ms x 100% = 99.4%



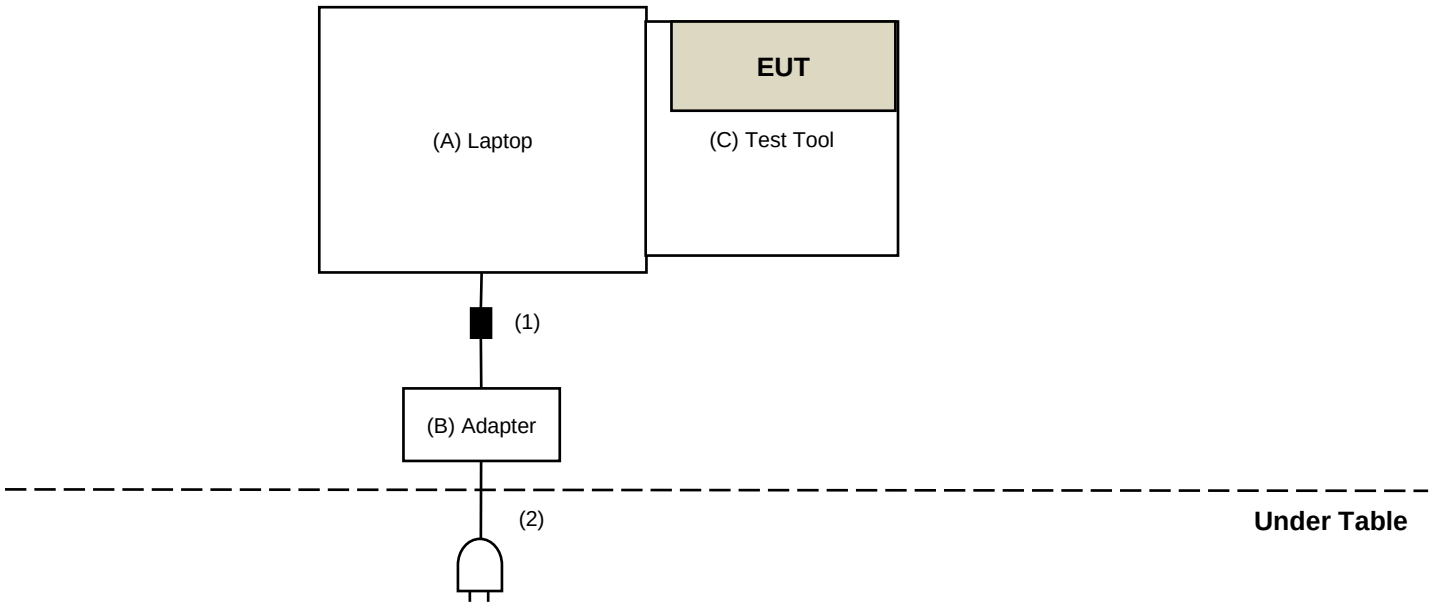
802.11b

3.6 Test Program Used and Operation Descriptions

Controlling software QA Tool 0.0.2.100 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

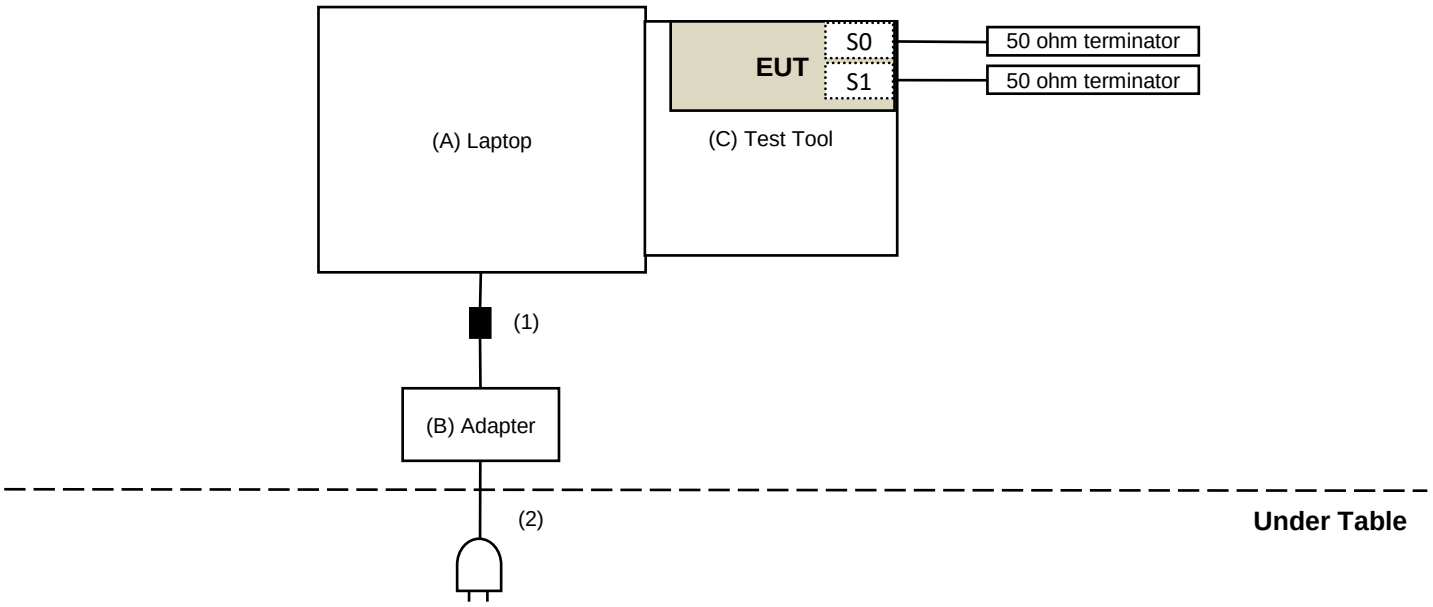
3.7 Connection Diagram of EUT and Peripheral Devices

Mode A

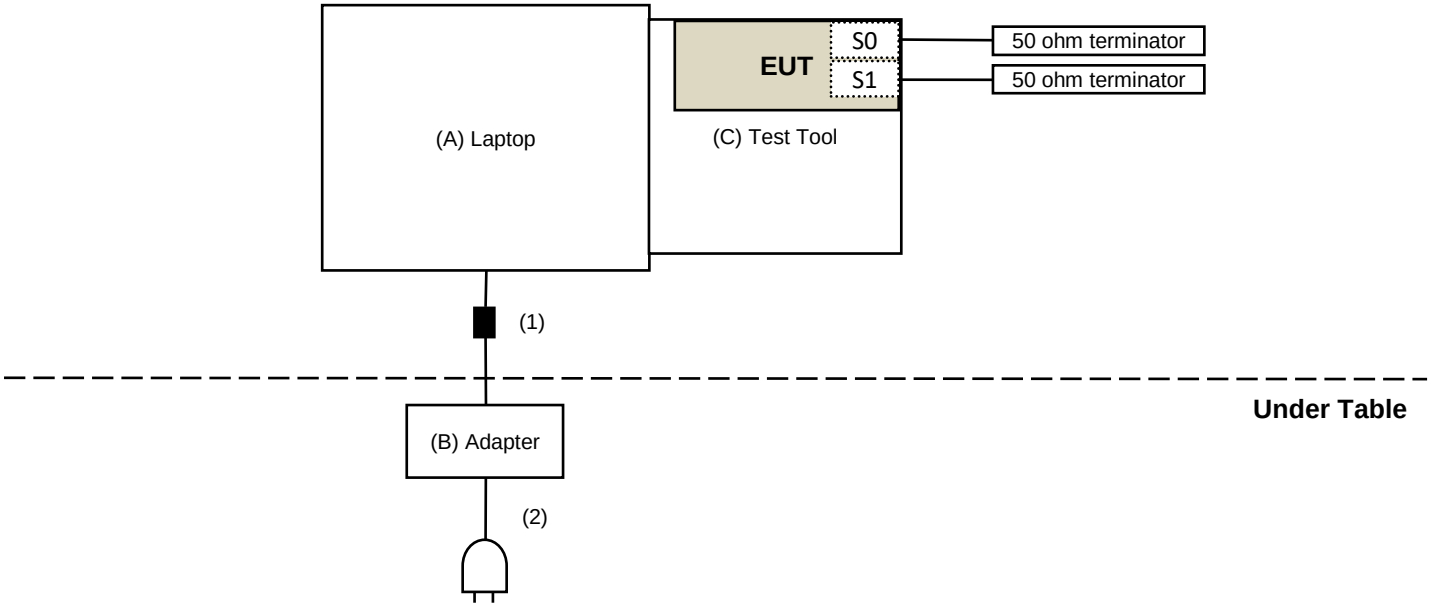


Mode B

For AC Power Conducted Emission test



For Unwanted Emission test



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	L440	N/A	N/A	Provided by Lab
B	Adapter	Lenovo	ADLX45NCC3A	N/A	N/A	Provided by Lab
C	Test Tool	Mediatek	MTK1849	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	1	Provided by Lab (Brand: Lenovo, Model: ADLX45NCC3A)
2	AC Cable	1	1	No	0	Provided by Lab

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011315	13	2023/11/22	2024/11/21
50 ohm terminal resistance	E1-011279	04	2023/11/22	2024/11/21
	E1-011280	05	2023/11/22	2024/11/21
DC-LISN Schwarzbeck	NNBM 8126G	8126G-069	2023/11/7	2024/11/6
EMI Test Receiver R&S	ESR3	102783	2023/12/13	2024/12/12
Fixed Attenuator SGH	BNC10W10dB	PAD-COND2-01	2023/9/2	2024/9/1
LISN R&S	ESH2-Z5	100100	2024/3/6	2025/3/5
	ESH3-Z5	100312	2023/9/12	2024/9/11
RF Coaxial Cable Woken	5D-FB	Cable-cond2-01	2023/9/2	2024/9/1
Software BVADT	BVADT_Cond_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2023/8/31	2024/8/30

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2024/5/24

4.2 Unwanted Emissions below 1 GHz

Mode A

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Signal & Spectrum Analyzer R&S	FSV3044	101504	2023/6/5	2024/6/4
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/5/27

Mode B

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower &Turn BV ADT	AT100	AT93021705	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-160	2023/10/17	2024/10/16
Loop Antenna Electro-Metrics	EM-6879	269	2023/9/23	2024/9/22
Loop Antenna TESEQ	HLA 6121	45745	2023/8/8	2024/8/7
MXE EMI Receiver Keysight	N9038B	MY60180018	2024/3/13	2025/3/12
Preamplifier Agilent	8447D	2944A10638	2024/5/1	2025/4/30
Preamplifier EMCI	EMC001340	980201	2023/9/27	2024/9/26
RF Coaxial Cable Woken	8D-FB	Cable-CH9-01	2024/5/1	2025/4/30
Signal & Spectrum Analyzer R&S	FSW43	101867	2023/12/29	2024/12/28
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4.
2. Tested Date: 2024/5/27

4.3 Unwanted Emissions above 1 GHz

Mode A

Refer to section 4.3 to get information of the instruments.

Mode B

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower &Turn BV ADT	AT100	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1169	2023/11/12	2024/11/11
	BBHA 9170	9170-480	2023/11/12	2024/11/11
		BBHA9170243	2023/11/12	2024/11/11
MXE EMI Receiver Keysight	N9038B	MY60180018	2024/3/13	2025/3/12
Preamplifier Agilent	8449B	3008A02367	2024/1/6	2025/1/5
Preamplifier EMCI	EMC 184045	980116	2023/9/27	2024/9/26
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2023/7/8	2024/7/7
	EMC102-KM-KM-3000	150929	2023/7/8	2024/7/7
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	2024/1/6	2025/1/5
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2024/1/6	2025/1/5
Signal & Spectrum Analyzer R&S	FSW43	101867	2023/12/29	2024/12/28
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4.
2. Tested Date: 2024/5/24

5 Limits of Test Items

5.1 AC Power Conducted Emissions

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Notes:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

5.2 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

5.3 Unwanted Emissions above 1 GHz

Radiated emissions above 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

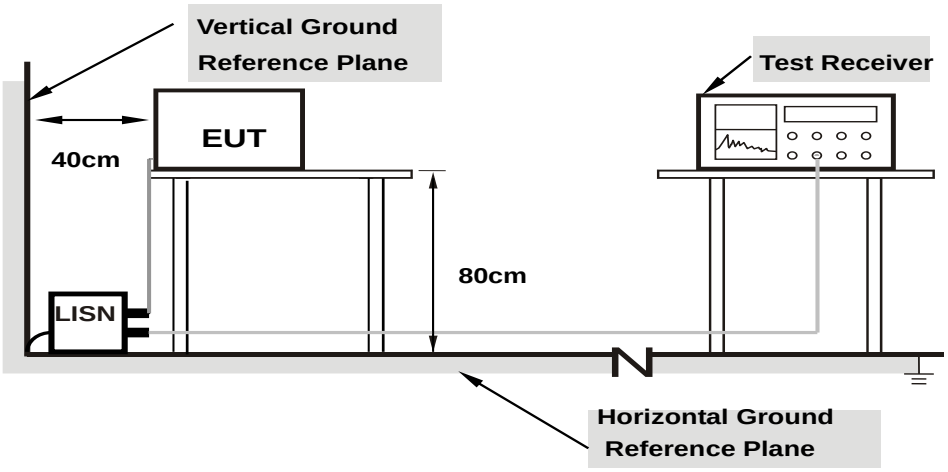
Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

6 Test Arrangements

6.1 AC Power Conducted Emissions

6.1.1 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.1.2 Test Procedure

a. The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

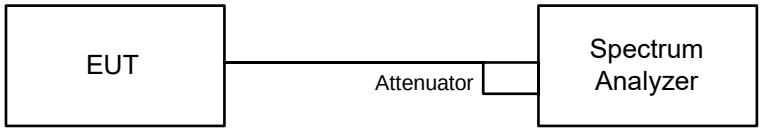
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

6.2 Unwanted Emissions below 1 GHz

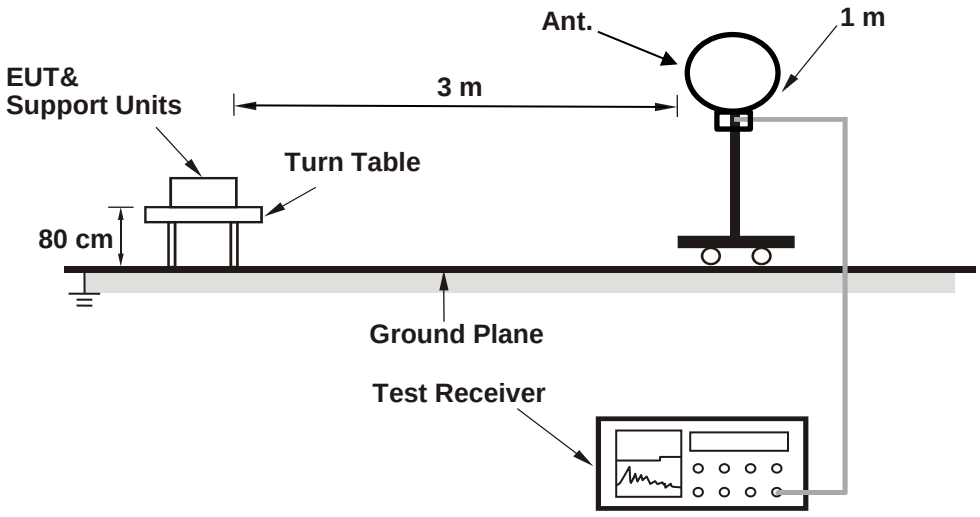
6.2.1 Test Setup

For Conducted Configuration:

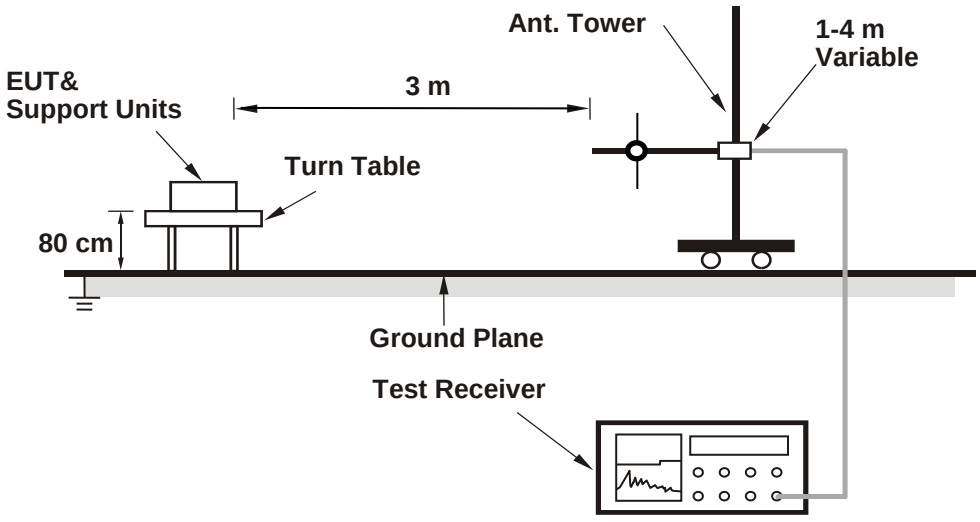


For Radiated Configuration:

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.2.2 Test Procedure

Radiated versus Conducted Measurement.
The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.
The following steps was performed:

a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.
d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
e. For all of Radiation emission test

For Radiated emission below 30 MHz

e-1.1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

e-1.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-1.3. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

e-1.4. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e-1.5. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

e-2.1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

e-2.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-2.3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e-2.4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e-2.5. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Notes:

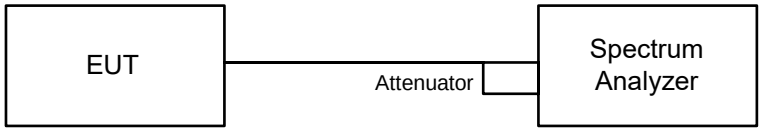
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

Radiated versus Conducted Measurement
For Radiated measurement: The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation). For Conducted measurement: The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).
Conducted Unwanted Emission Convert Formula
a. Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8 d = measurement distance in 3 meters. b. EIRP Level (dBm) = Raw Value(dBm) + Correction Factor(dB) c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands. For the band edge the gain for the specific band may have been used. Notes: 1. In restricted bands below 1000 MHz, add upper bound on ground plane reflection: For frequencies between 30 MHz and 1000 MHz, add 4.7 dB. 2. The conducted emission test was considered some factor to compute test result.

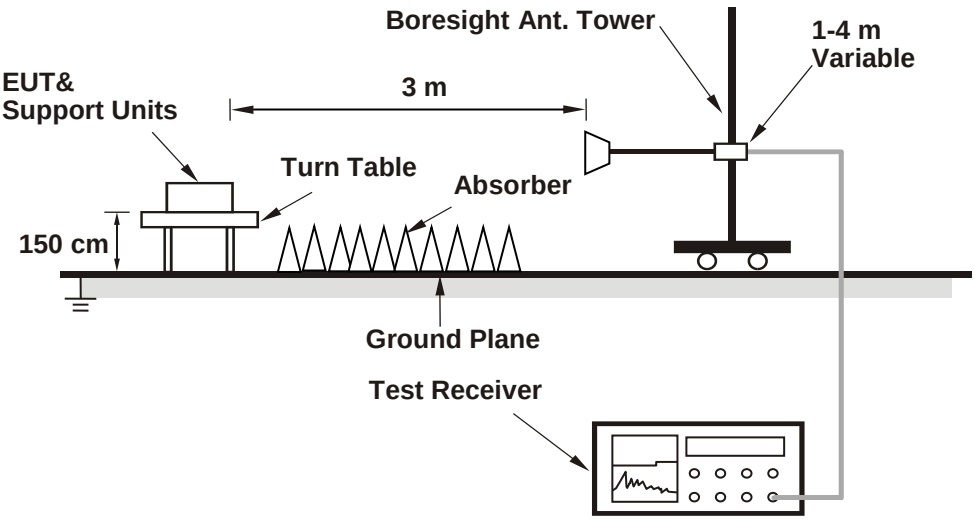
6.3 Unwanted Emissions above 1 GHz

6.3.1 Test Setup

For Conducted Configuration:



For Radiated Configuration:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.3.2 Test Procedure

Radiated versus Conducted Measurement.
The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.
The following steps was performed:

a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.

b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.

c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.

d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)

e. For all of Radiation emission test

e-1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

e-2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e-4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e-5. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Notes:

1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

Radiated versus Conducted Measurement
For Radiated measurement: The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation). For Conducted measurement: The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions). For Verified radiated measurement: The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation).
Conducted Unwanted Emission Convert Formula
a. Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8 d = measurement distance in 3 meters. b. EIRP Level (dBm) = Raw Value(dBm) + Correction Factor(dB). c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands. For the band edge the gain for the specific band may have been used. Note: The conducted emission test was considered some factor to compute test result.

7 Test Results of Test Item

7.1 AC Power Conducted Emissions

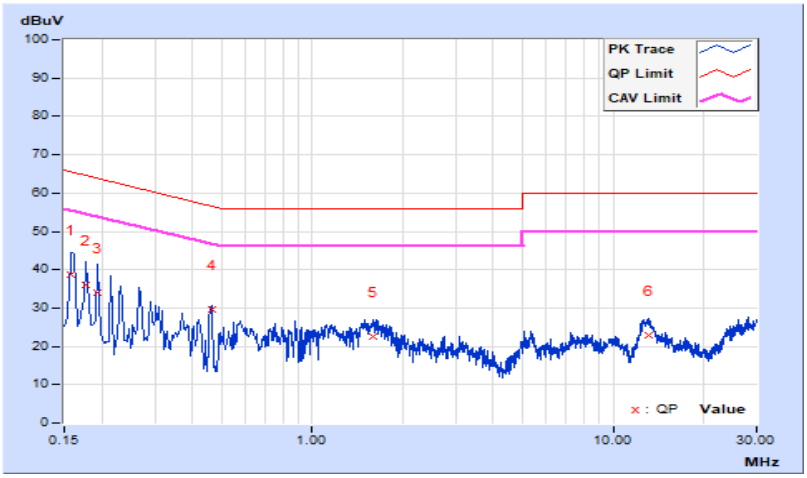
1TX

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	10.33	28.37	7.19	38.70	17.52	65.57	55.57	-26.87	-38.05
2	0.17800	10.35	25.54	11.81	35.89	22.16	64.58	54.58	-28.69	-32.42
3	0.19400	10.36	23.63	5.67	33.99	16.03	63.86	53.86	-29.87	-37.83
4	0.46200	10.44	19.24	16.46	29.68	26.90	56.66	46.66	-26.98	-19.76
5	1.60200	10.44	12.27	5.91	22.71	16.35	56.00	46.00	-33.29	-29.65
6	13.21400	10.70	12.20	6.16	22.90	16.86	60.00	50.00	-37.10	-33.14

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

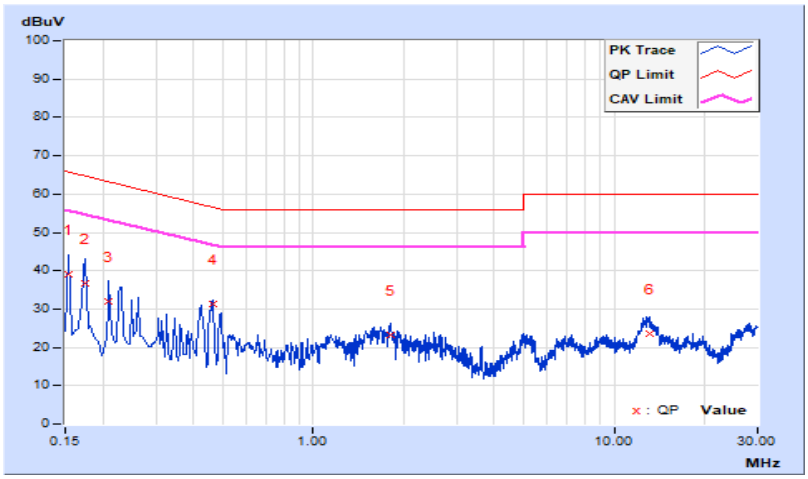


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	10.36	28.66	9.39	39.02	19.75	65.78	55.78	-26.76	-36.03
2	0.17400	10.37	26.37	15.26	36.74	25.63	64.77	54.77	-28.03	-29.14
3	0.21000	10.39	21.63	1.36	32.02	11.75	63.21	53.21	-31.19	-41.46
4	**0.46200**	**10.47**	**20.71**	**18.02**	**31.18**	**28.49**	**56.66**	**46.66**	**-25.48**	**-18.17**
5	1.81000	10.47	12.70	5.83	23.17	16.30	56.00	46.00	-32.83	-29.70
6	13.11800	10.77	12.76	6.85	23.53	17.62	60.00	50.00	-36.47	-32.38

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



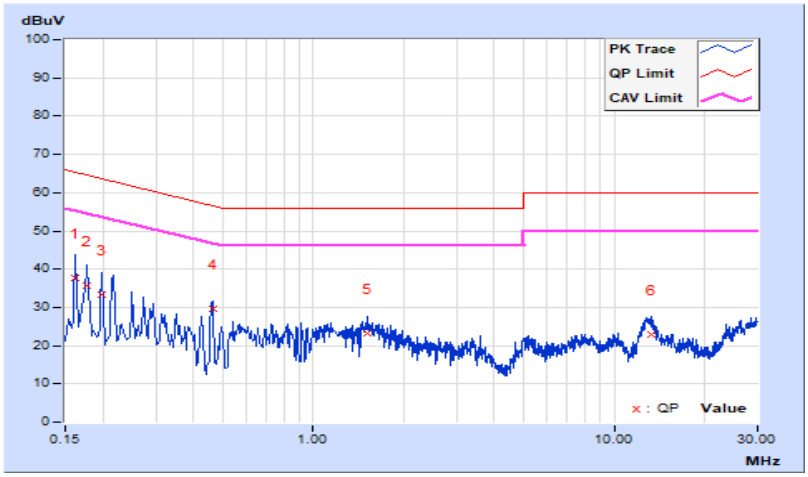
2TX

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	10.34	27.44	9.44	37.78	19.78	65.36	55.36	-27.58	-35.58
2	0.17800	10.35	25.24	11.24	35.59	21.59	64.58	54.58	-28.99	-32.99
3	0.19800	10.36	22.87	5.04	33.23	15.40	63.69	53.69	-30.46	-38.29
4	0.46200	10.44	19.29	16.52	29.73	26.96	56.66	46.66	-26.93	-19.70
5	1.52200	10.44	12.77	5.40	23.21	15.84	56.00	46.00	-32.79	-30.16
6	13.31400	10.70	12.23	5.77	22.93	16.47	60.00	50.00	-37.07	-33.53

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

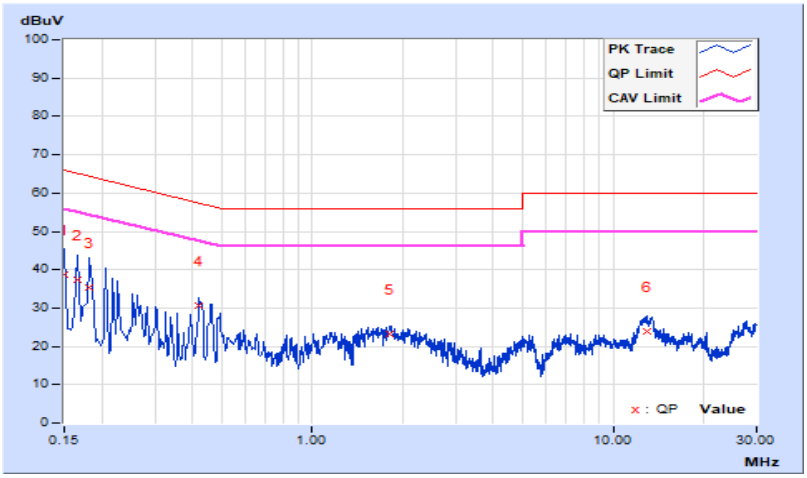


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.36	28.47	7.55	38.83	17.91	66.00	56.00	-27.17	-38.09
2	0.16600	10.37	26.92	9.01	37.29	19.38	65.16	55.16	-27.87	-35.78
3	0.18200	10.38	25.06	7.81	35.44	18.19	64.39	54.39	-28.95	-36.20
4	0.42200	10.47	20.08	15.68	30.55	26.15	57.41	47.41	-26.86	-21.26
5	1.80600	10.47	12.81	6.01	23.28	16.48	56.00	46.00	-32.72	-29.52
6	13.00600	10.77	13.04	6.77	23.81	17.54	60.00	50.00	-36.19	-32.46

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



7.2 Unwanted Emissions below 1 GHz

Mode A, For Conducted measurement:

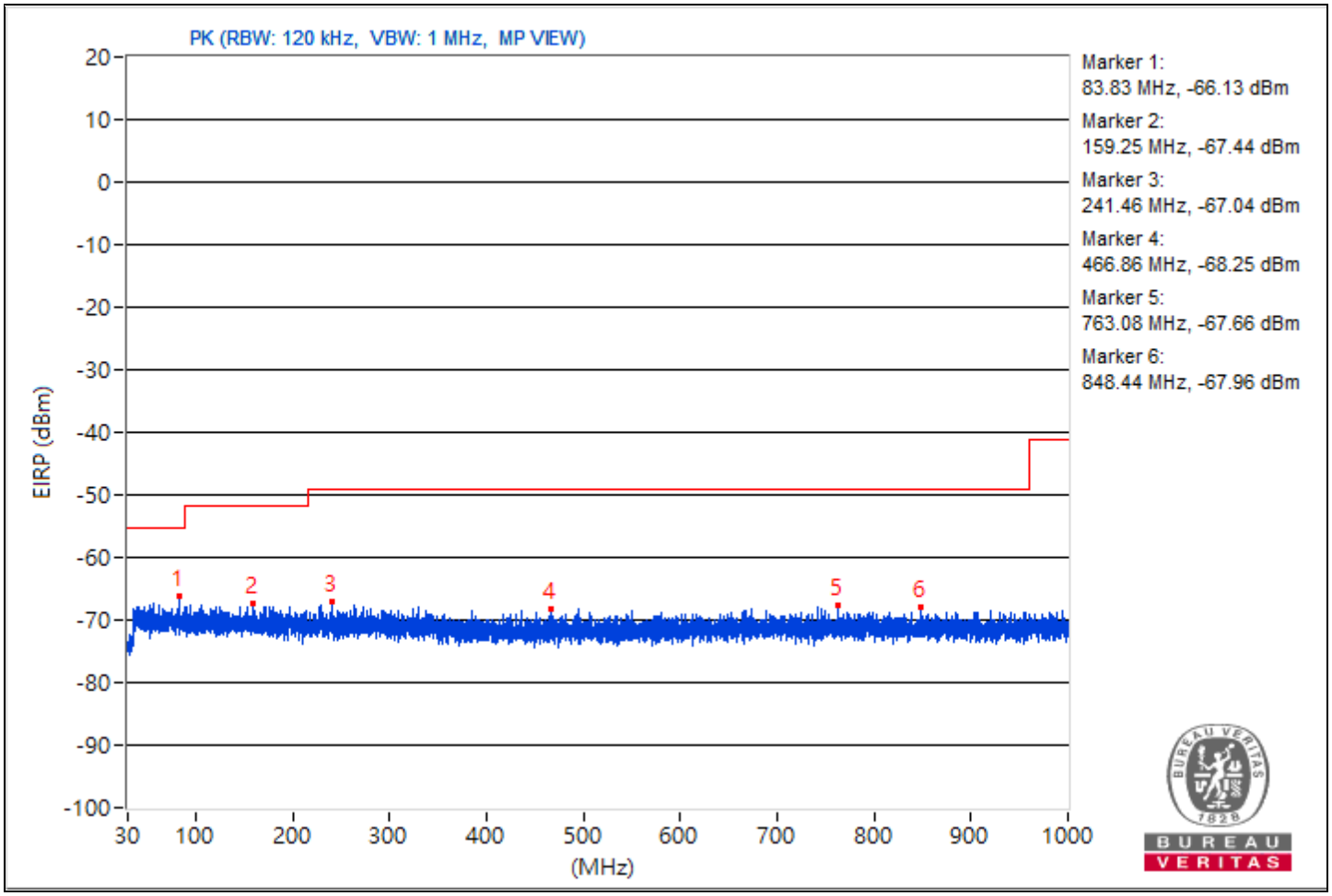
1TX

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	83.83	29.13 PK	40	-10.87	-73.94	7.81	-66.13
2	159.25	27.82 PK	43.5	-15.68	-75.25	7.81	-67.44
3	241.46	28.22 PK	46	-17.78	-74.85	7.81	-67.04
4	466.86	27.01 PK	46	-18.99	-76.06	7.81	-68.25
5	763.08	27.6 PK	46	-18.4	-75.47	7.81	-67.66
6	848.44	27.3 PK	46	-18.7	-75.77	7.81	-67.96

Notes:

1. Margin value = Emission Level - Limit value
2. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



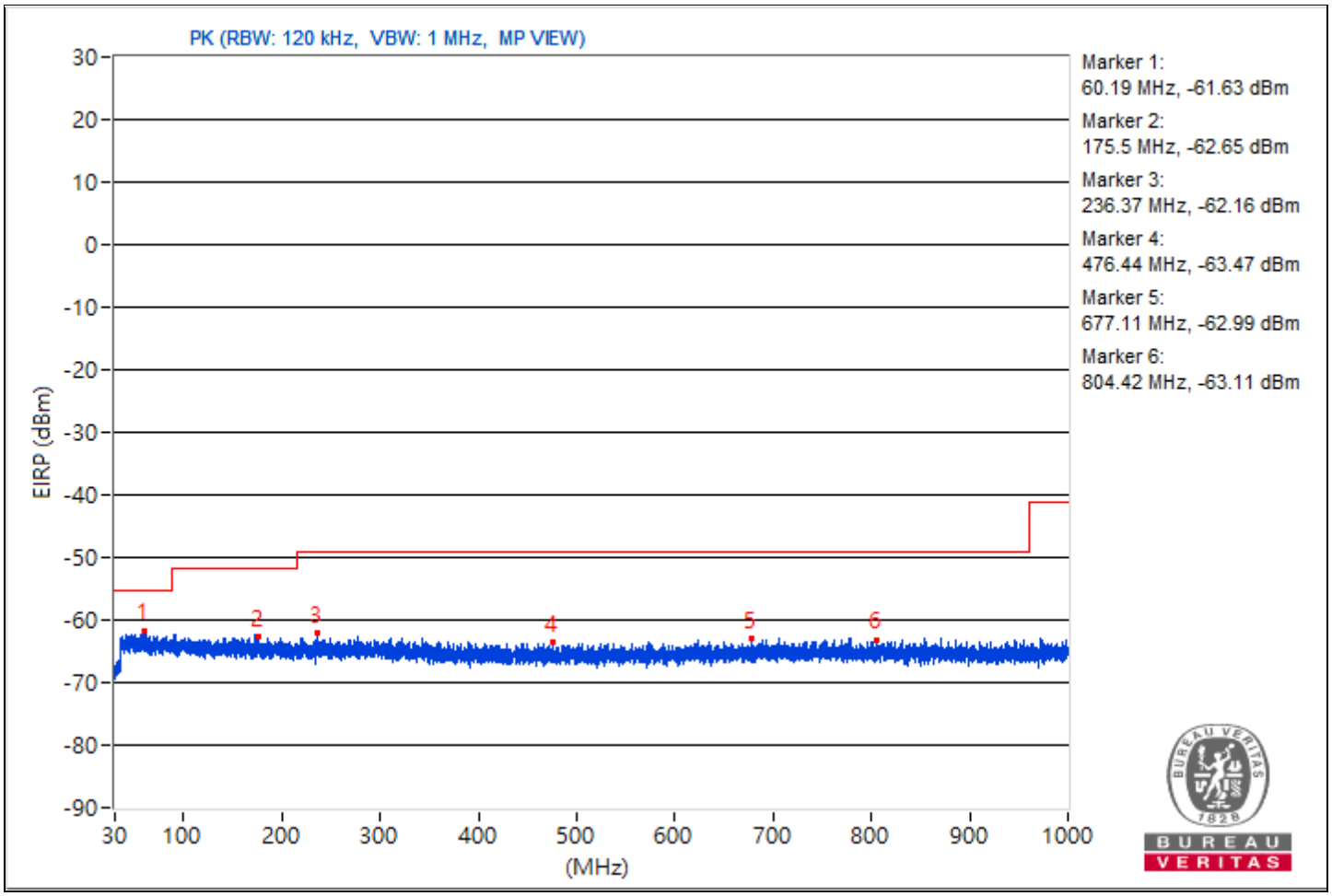
2TX

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	60.19	33.63 PK	40	-6.37	-77.67	-74	10.82	-61.63
2	175.5	32.61 PK	43.5	-10.89	-75.17	-78.38	10.82	-62.65
3	236.37	33.1 PK	46	-12.9	-75.03	-77.22	10.82	-62.16
4	476.44	31.79 PK	46	-14.21	-80.38	-75.51	10.82	-63.47
5	677.11	32.27 PK	46	-13.73	-80.01	-75	10.82	-62.99
6	804.42	32.15 PK	46	-13.85	-79.67	-75.28	10.82	-63.11

Notes:

1. Margin value = Emission Level - Limit value
2. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



Mode B, For Radiated measurement:

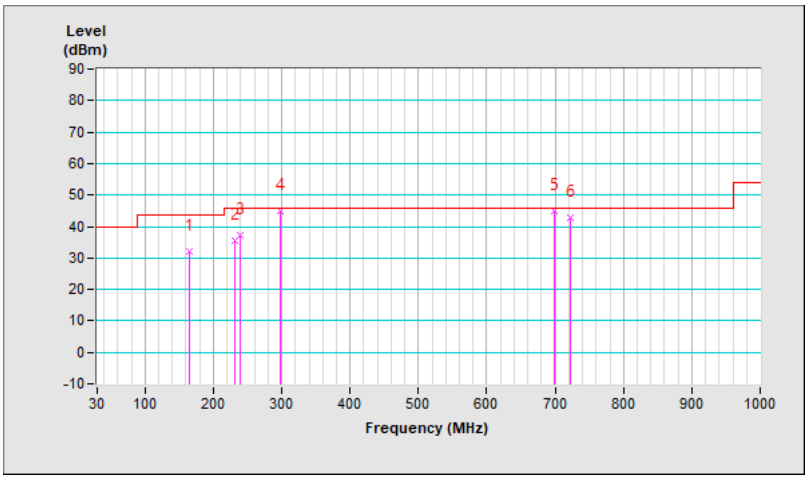
1TX

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	164.83	32.2 QP	43.5	-11.3	1.00 H	318	40.4	-8.2
2	231.76	35.4 QP	46.0	-10.6	1.50 H	246	45.5	-10.1
3	239.52	37.2 QP	46.0	-8.8	1.00 H	63	46.3	-9.1
4	**297.72**	**45.0 QP**	**46.0**	**-1.0**	**1.00 H**	**194**	**51.6**	**-6.6**
5	698.33	44.9 QP	46.0	-1.1	1.00 H	66	44.1	0.8
6	721.61	43.0 QP	46.0	-3.0	1.50 H	70	41.7	1.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

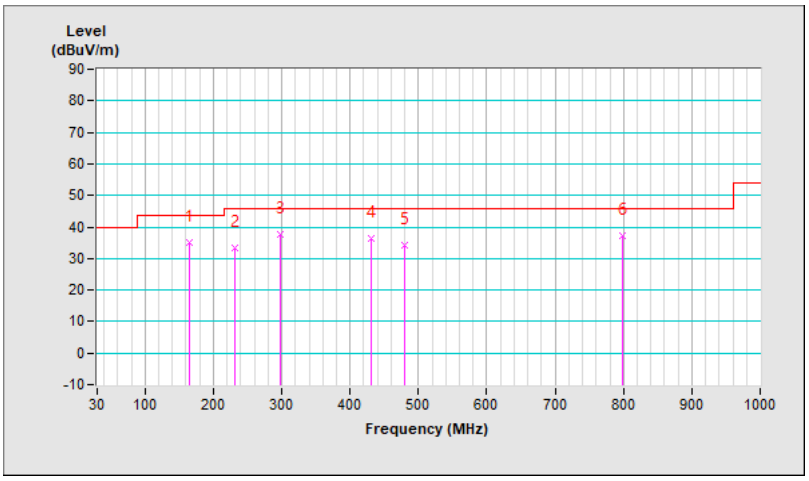


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	164.83	34.9 QP	43.5	-8.6	1.00 V	163	43.1	-8.2
2	231.76	33.4 QP	46.0	-12.6	1.00 V	147	43.5	-10.1
3	297.72	37.8 QP	46.0	-8.2	1.49 V	40	44.4	-6.6
4	431.58	36.2 QP	46.0	-9.8	1.00 V	130	40.2	-4.0
5	479.11	34.2 QP	46.0	-11.8	1.00 V	278	37.4	-3.2
6	798.24	37.4 QP	46.0	-8.6	1.49 V	256	34.4	3.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



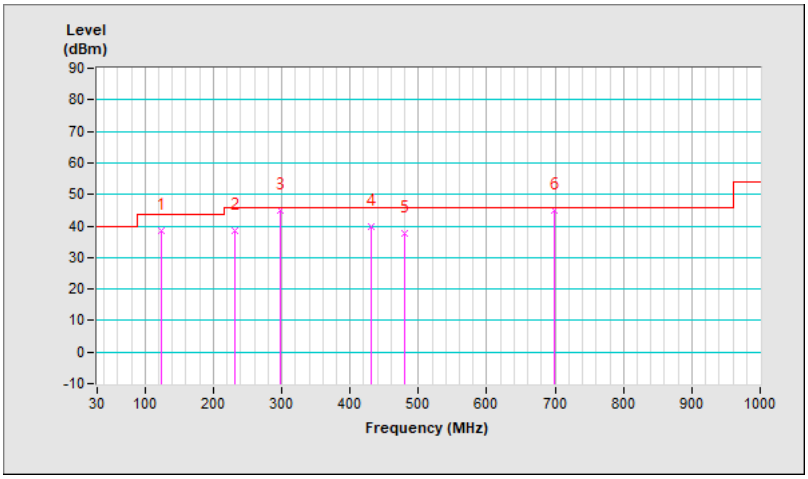
2TX

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	124.09	38.3 QP	43.5	-5.2	1.99 H	203	48.7	-10.4
2	231.76	38.6 QP	46.0	-7.4	1.49 H	241	48.7	-10.1
3	**298.69**	**45.0 QP**	**46.0**	**-1.0**	**1.00 H**	**195**	**51.6**	**-6.6**
4	431.58	39.6 QP	46.0	-6.4	1.99 H	9	43.6	-4.0
5	479.11	37.8 QP	46.0	-8.2	1.49 H	35	41.0	-3.2
6	698.33	44.9 QP	46.0	-1.1	1.00 H	65	44.1	0.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

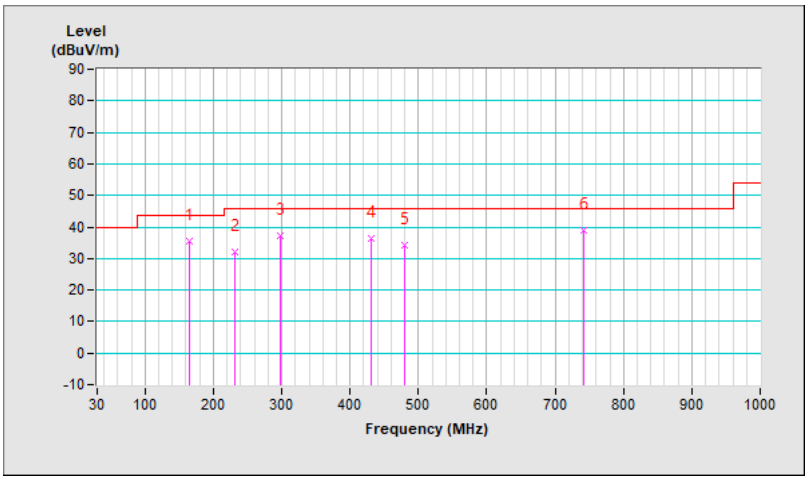


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	164.83	35.3 QP	43.5	-8.2	1.01 V	131	43.5	-8.2
2	231.76	32.2 QP	46.0	-13.8	1.01 V	166	42.3	-10.1
3	298.69	37.4 QP	46.0	-8.6	1.50 V	24	44.0	-6.6
4	431.58	36.4 QP	46.0	-9.6	1.01 V	131	40.4	-4.0
5	479.11	34.2 QP	46.0	-11.8	1.01 V	127	37.4	-3.2
6	741.98	38.8 QP	46.0	-7.2	2.00 V	12	36.9	1.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.3 Unwanted Emissions above 1 GHz

Mode A, For Conducted measurement:

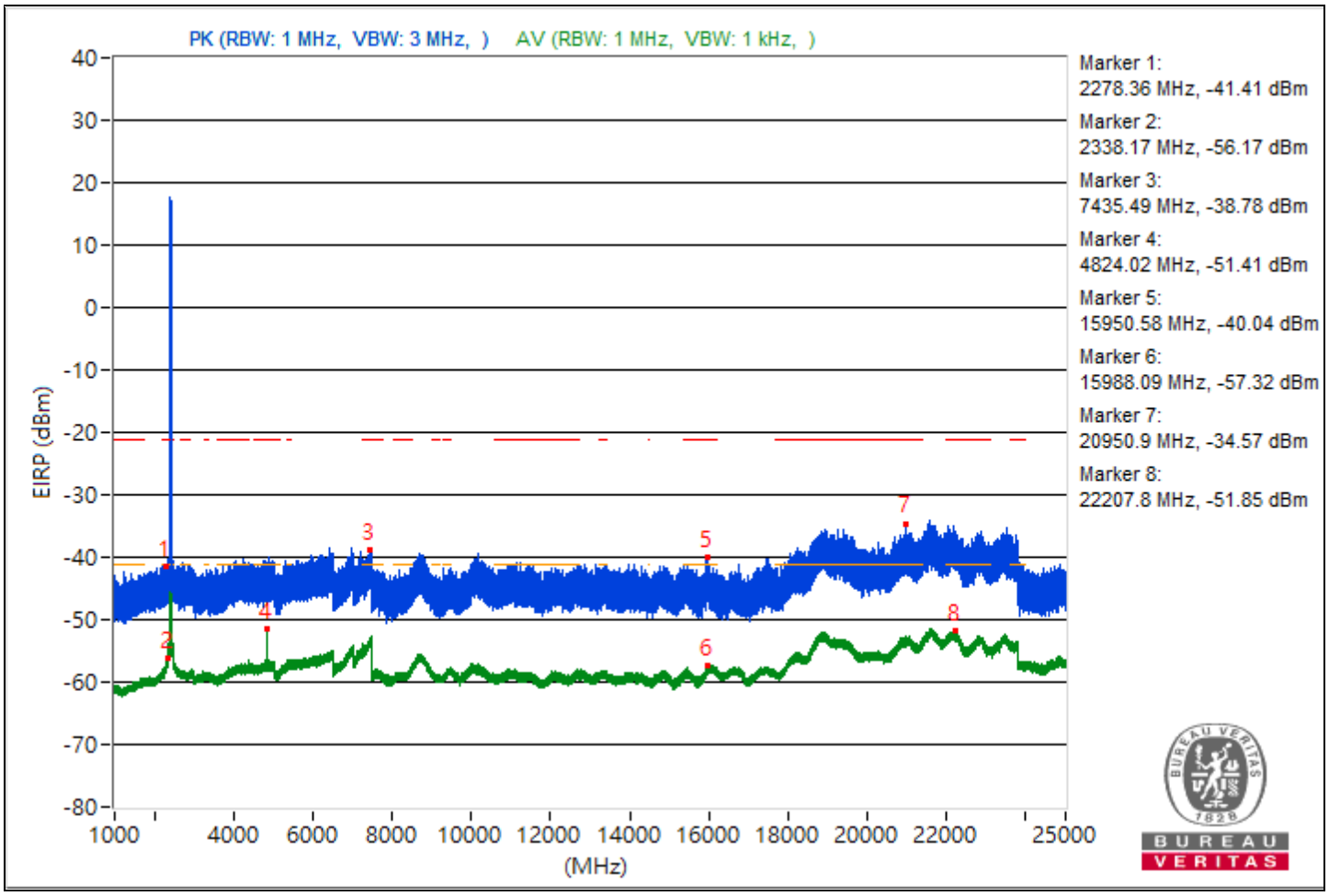
Conducted spurious emission table

1TX

RF Mode	802.11b	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2278.36	53.85 PK	74	-20.15	-44.52	3.11	-41.41
2	2338.17	39.09 AV	54	-14.91	-59.28	3.11	-56.17
3	7435.49	56.48 PK	74	-17.52	-41.89	3.11	-38.78
4	4824.02	43.85 AV	54	-10.15	-54.52	3.11	-51.41
5	15950.58	55.22 PK	74	-18.78	-43.15	3.11	-40.04
6	15988.09	37.94 AV	54	-16.06	-60.43	3.11	-57.32
7	20950.9	60.69 PK	74	-13.31	-37.68	3.11	-34.57
8	22207.8	43.41 AV	54	-10.59	-54.96	3.11	-51.85

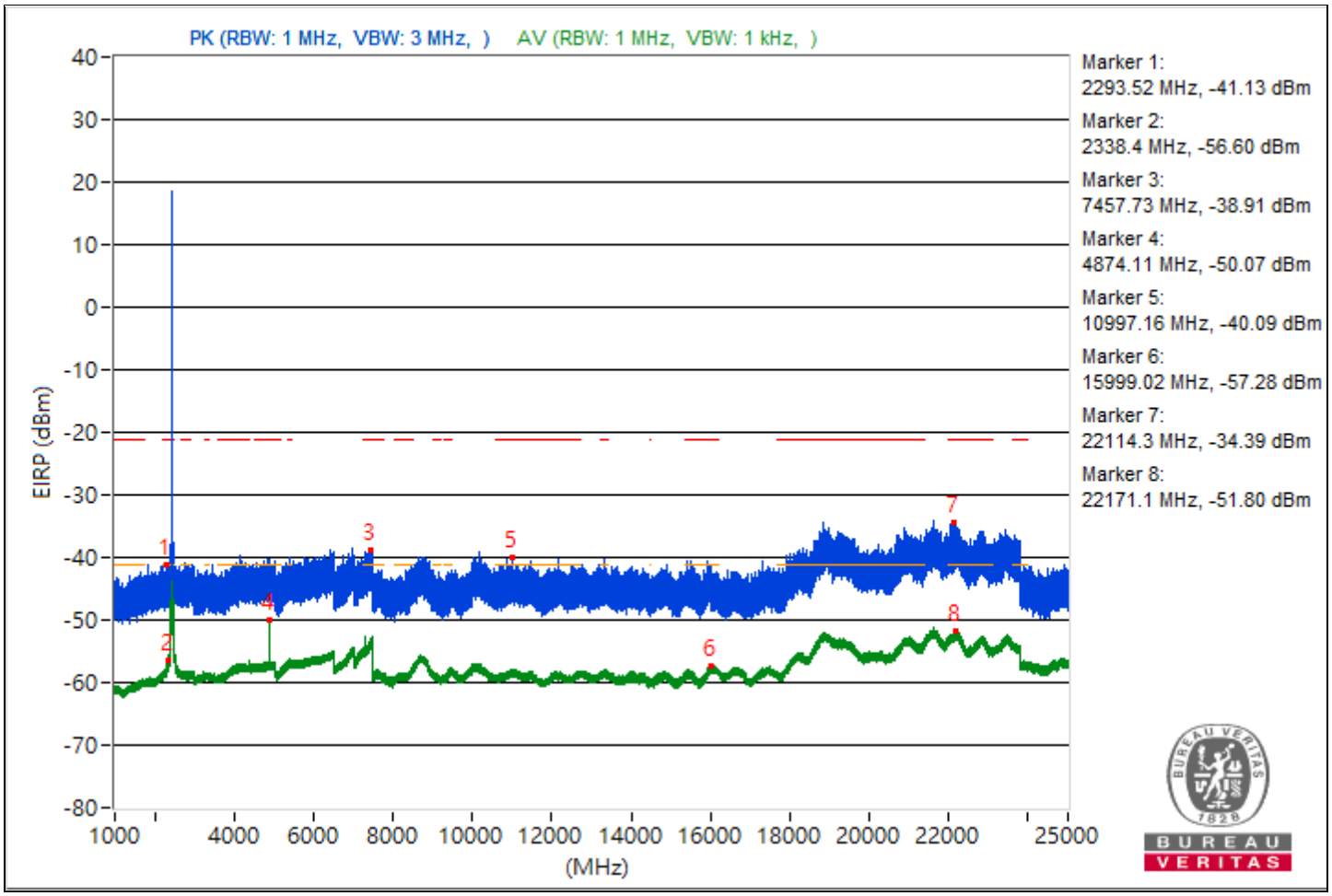
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2293.52	54.13 PK	74	-19.87	-44.24	3.11	-41.13
2	2338.4	38.66 AV	54	-15.34	-59.71	3.11	-56.6
3	7457.73	56.35 PK	74	-17.65	-42.02	3.11	-38.91
4	4874.11	45.19 AV	54	-8.81	-53.18	3.11	-50.07
5	10997.16	55.17 PK	74	-18.83	-43.2	3.11	-40.09
6	15999.02	37.98 AV	54	-16.02	-60.39	3.11	-57.28
7	22114.3	60.87 PK	74	-13.13	-37.5	3.11	-34.39
8	22171.1	43.46 AV	54	-10.54	-54.91	3.11	-51.8

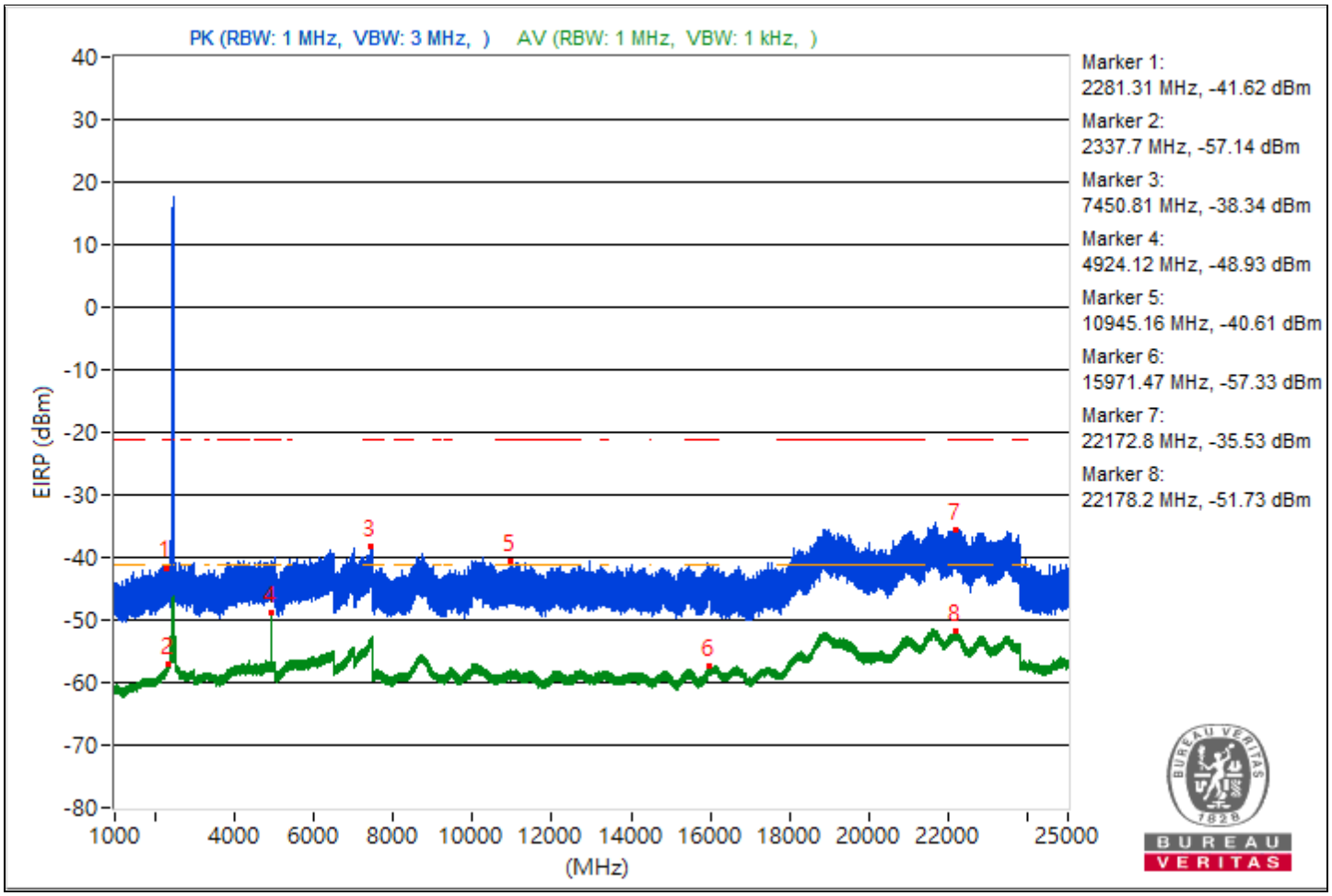
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2281.31	53.64 PK	74	-20.36	-44.73	3.11	-41.62
2	2337.7	38.12 AV	54	-15.88	-60.25	3.11	-57.14
3	7450.81	56.92 PK	74	-17.08	-41.45	3.11	-38.34
4	4924.12	46.33 AV	54	-7.67	-52.04	3.11	-48.93
5	10945.16	54.65 PK	74	-19.35	-43.72	3.11	-40.61
6	15971.47	37.93 AV	54	-16.07	-60.44	3.11	-57.33
7	22172.8	59.73 PK	74	-14.27	-38.64	3.11	-35.53
8	22178.2	43.53 AV	54	-10.47	-54.84	3.11	-51.73

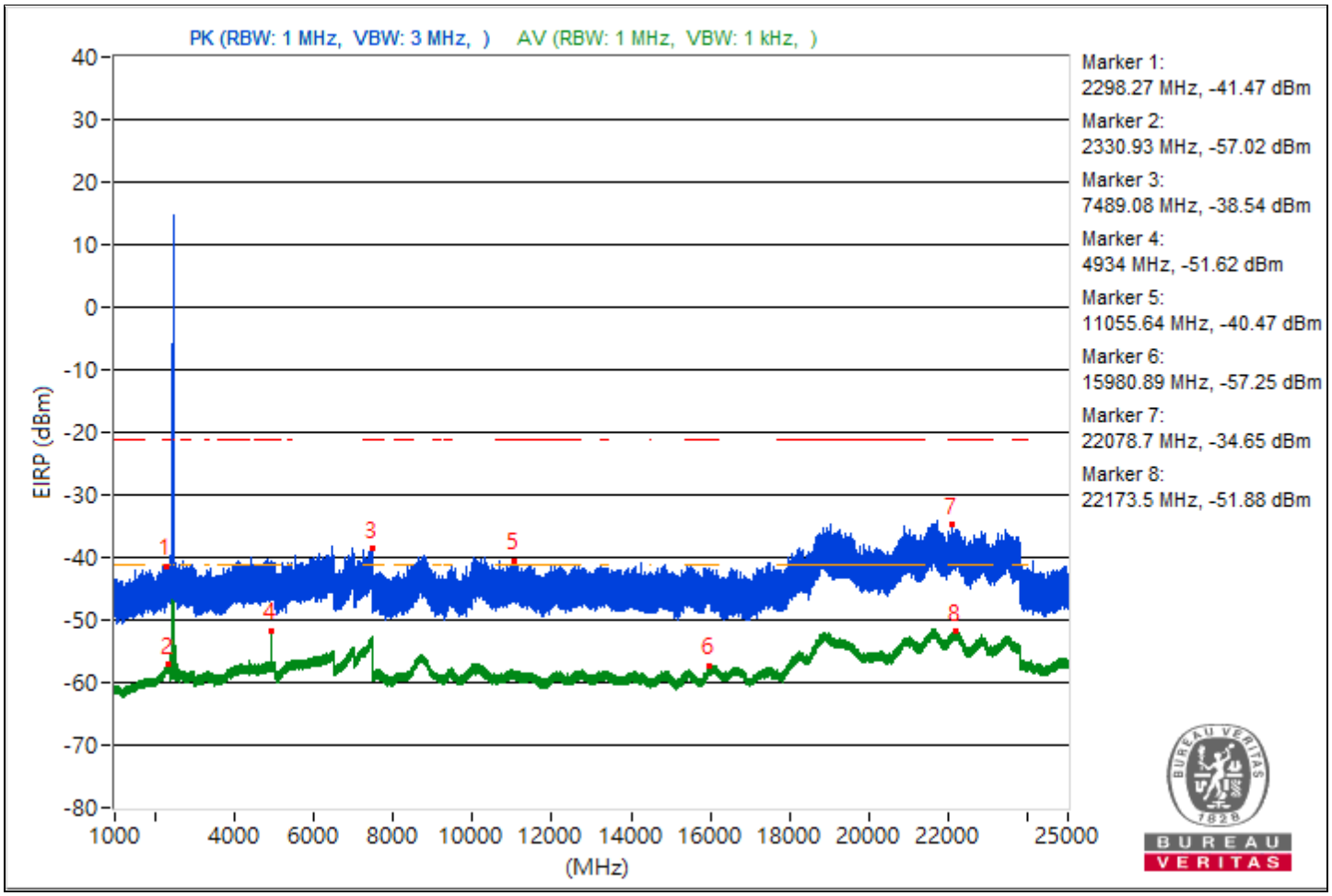
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 12：2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2298.27	53.79 PK	74	-20.21	-44.58	3.11	-41.47
2	2330.93	38.24 AV	54	-15.76	-60.13	3.11	-57.02
3	7489.08	56.72 PK	74	-17.28	-41.65	3.11	-38.54
4	4934	43.64 AV	54	-10.36	-54.73	3.11	-51.62
5	11055.64	54.79 PK	74	-19.21	-43.58	3.11	-40.47
6	15980.89	38.01 AV	54	-15.99	-60.36	3.11	-57.25
7	22078.7	60.61 PK	74	-13.39	-37.76	3.11	-34.65
8	22173.5	43.38 AV	54	-10.62	-54.99	3.11	-51.88

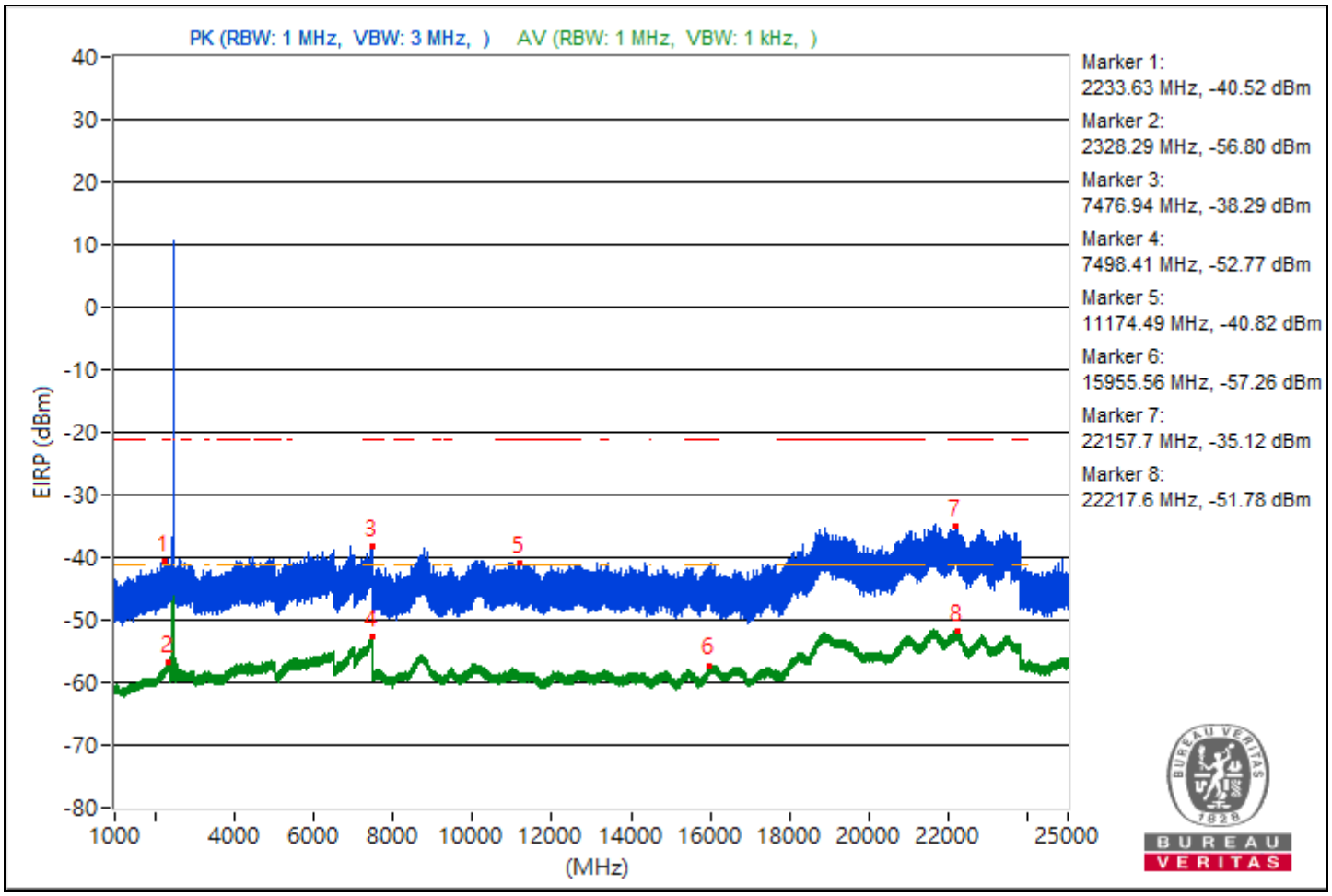
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 13：2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2233.63	54.74 PK	74	-19.26	-43.63	3.11	-40.52
2	2328.29	38.46 AV	54	-15.54	-59.91	3.11	-56.8
3	7476.94	56.97 PK	74	-17.03	-41.4	3.11	-38.29
4	7498.41	42.49 AV	54	-11.51	-55.88	3.11	-52.77
5	11174.49	54.44 PK	74	-19.56	-43.93	3.11	-40.82
6	15955.56	38 AV	54	-16	-60.37	3.11	-57.26
7	22157.7	60.14 PK	74	-13.86	-38.23	3.11	-35.12
8	22217.6	43.48 AV	54	-10.52	-54.89	3.11	-51.78

Note: Margin value = Emission Level - Limit value

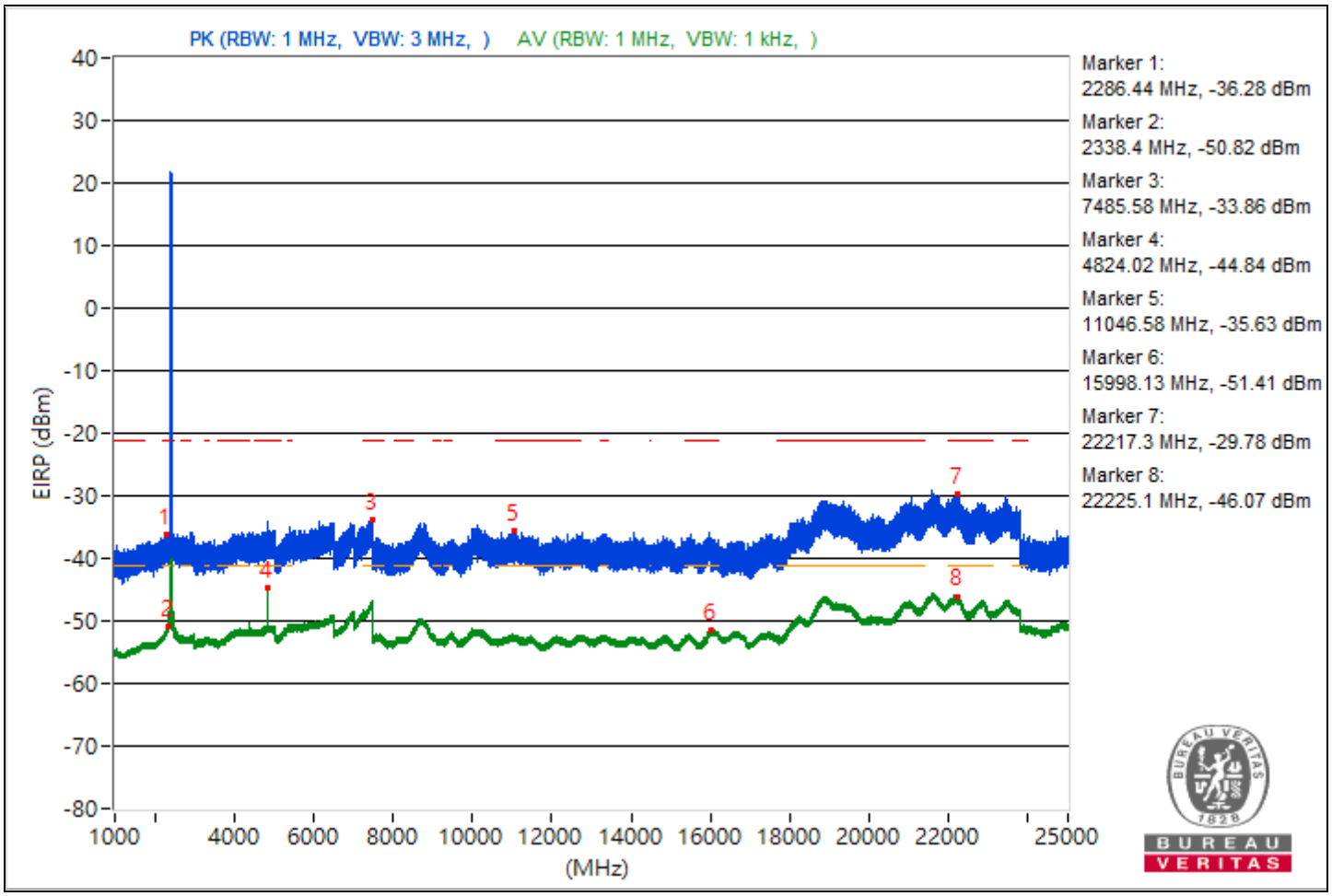


2TX

RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2286.44	58.98 PK	74	-15.02	-47.22	-44.14	6.12	-36.28
2	2338.4	44.44 AV	54	-9.56	-60.67	-59.34	6.12	-50.82
3	7485.58	61.4 PK	74	-12.6	-46.66	-41.03	6.12	-33.86
4	4824.02	50.42 AV	54	-3.58	-53.16	-54.96	6.12	-44.84
5	11046.58	59.63 PK	74	-14.37	-43.31	-46.95	6.12	-35.63
6	15998.13	43.85 AV	54	-10.15	-60.27	-60.82	6.12	-51.41
7	22217.3	65.48 PK	74	-8.52	-41.56	-37.27	6.12	-29.78
8	22225.1	49.19 AV	54	-4.81	-54.88	-55.54	6.12	-46.07

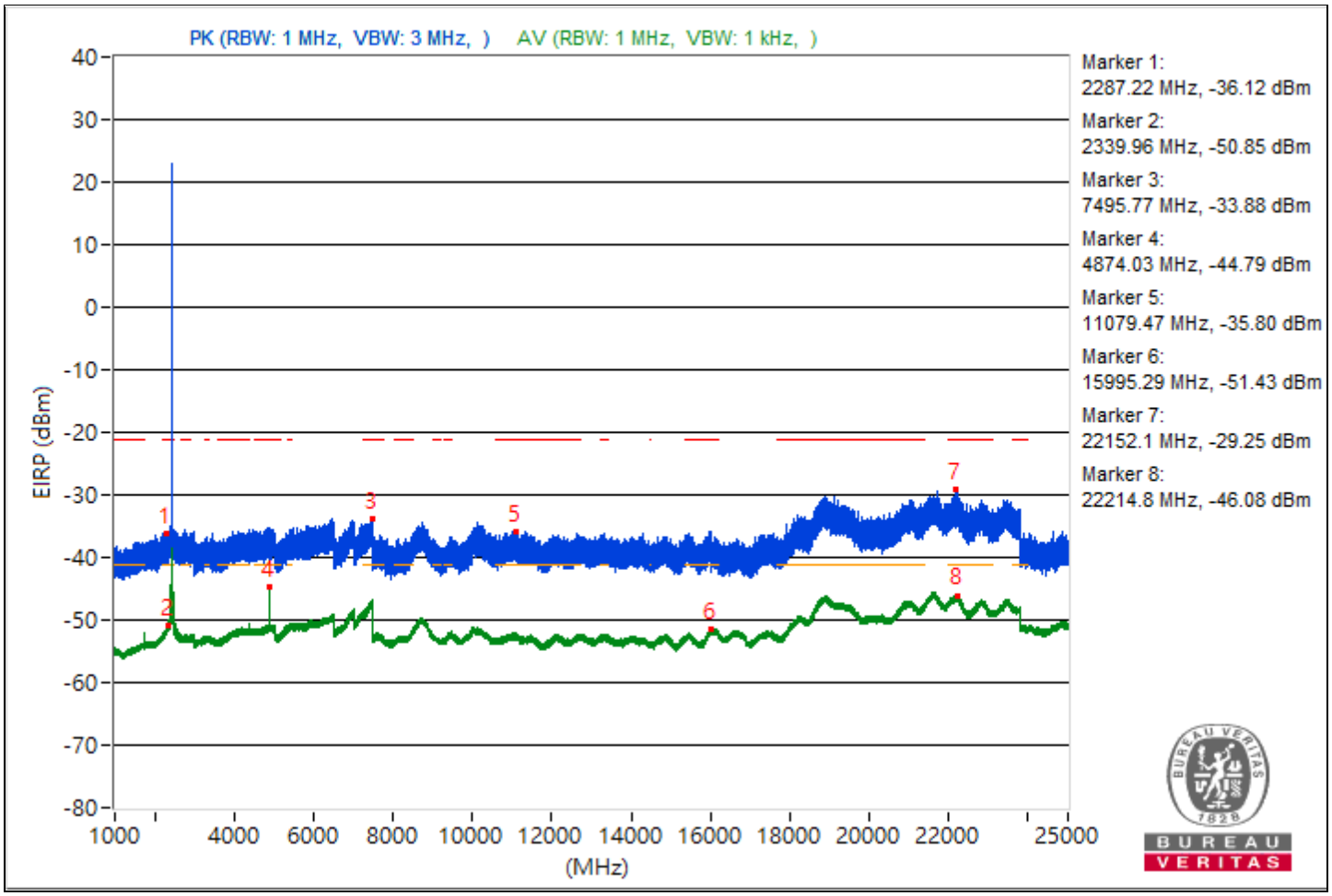
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2287.22	59.14 PK	74	-14.86	-44.02	-46.96	6.12	-36.12
2	2339.96	44.41 AV	54	-9.59	-59.69	-60.29	6.12	-50.85
3	7495.77	61.38 PK	74	-12.62	-41.86	-44.57	6.12	-33.88
4	**4874.03**	**50.47 AV**	**54**	**-3.53**	**-54.8**	**-53.18**	**6.12**	**-44.79**
5	11079.47	59.46 PK	74	-14.54	-47.9	-43.19	6.12	-35.8
6	15995.29	43.83 AV	54	-10.17	-60.79	-60.34	6.12	-51.43
7	22152.1	66.01 PK	74	-7.99	-37.03	-40.37	6.12	-29.25
8	22214.8	49.18 AV	54	-4.82	-55.57	-54.87	6.12	-46.08

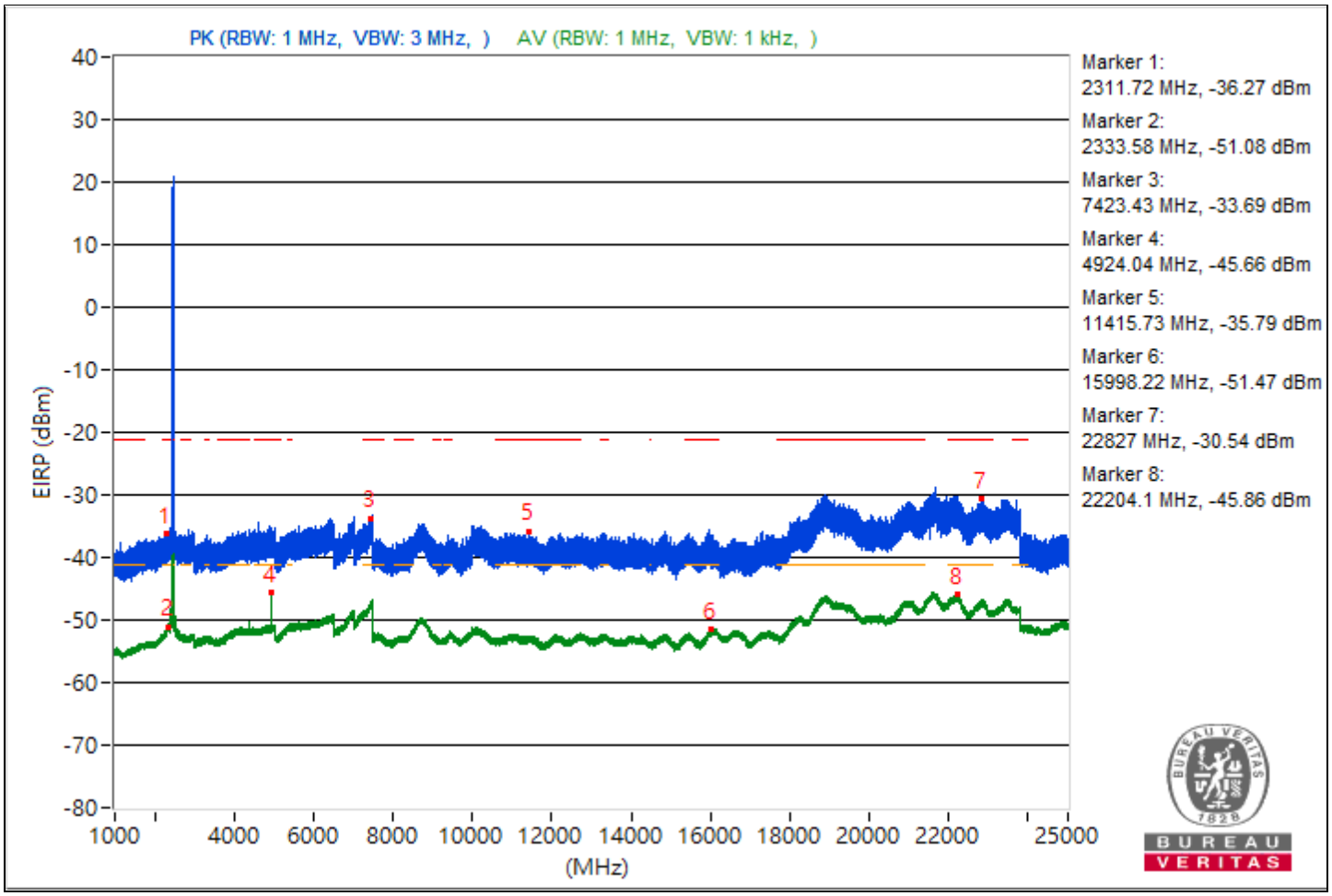
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2311.72	58.99 PK	74	-15.01	-44.44	-46.63	6.12	-36.27
2	2333.58	44.18 AV	54	-9.82	-60.44	-59.99	6.12	-51.08
3	7423.43	61.57 PK	74	-12.43	-44.61	-41.55	6.12	-33.69
4	4924.04	49.6 AV	54	-4.4	-55.65	-54.07	6.12	-45.66
5	11415.73	59.47 PK	74	-14.53	-47.91	-43.16	6.12	-35.79
6	15998.22	43.79 AV	54	-10.21	-60.94	-60.29	6.12	-51.47
7	22827	64.72 PK	74	-9.28	-37.77	-43.09	6.12	-30.54
8	22204.1	49.4 AV	54	-4.6	-55.15	-54.83	6.12	-45.86

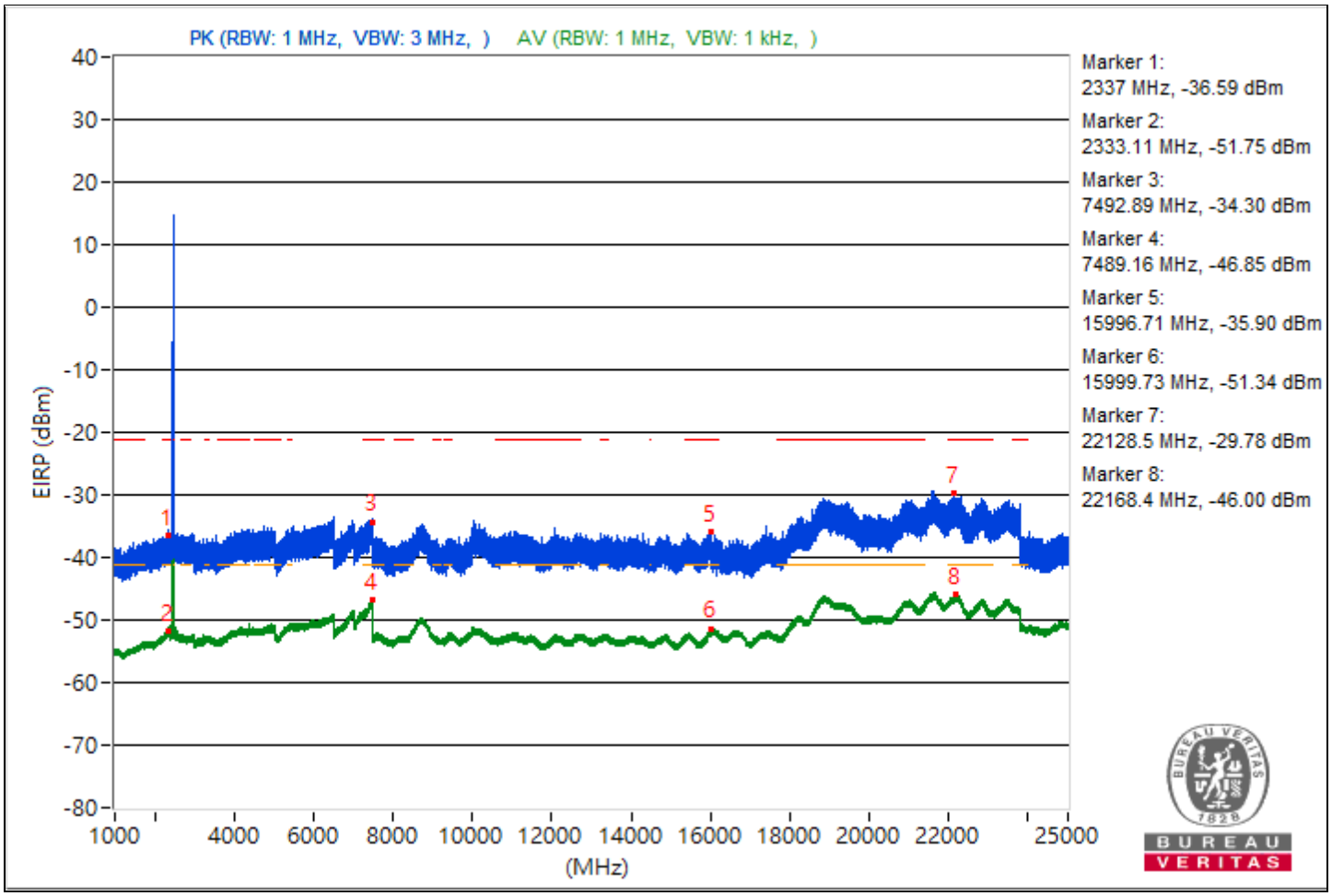
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 12：2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2337	58.67 PK	74	-15.33	-48.71	-43.96	6.12	-36.59
2	2333.11	43.51 AV	54	-10.49	-62.31	-59.81	6.12	-51.75
3	7492.89	60.96 PK	74	-13.04	-41.48	-47.02	6.12	-34.3
4	7489.16	48.41 AV	54	-5.59	-55.68	-56.3	6.12	-46.85
5	15996.71	59.36 PK	74	-14.64	-43.15	-48.44	6.12	-35.9
6	15999.73	43.92 AV	54	-10.08	-60.63	-60.33	6.12	-51.34
7	22128.5	65.48 PK	74	-8.52	-40.02	-38.03	6.12	-29.78
8	22168.4	49.26 AV	54	-4.74	-54.83	-55.45	6.12	-46

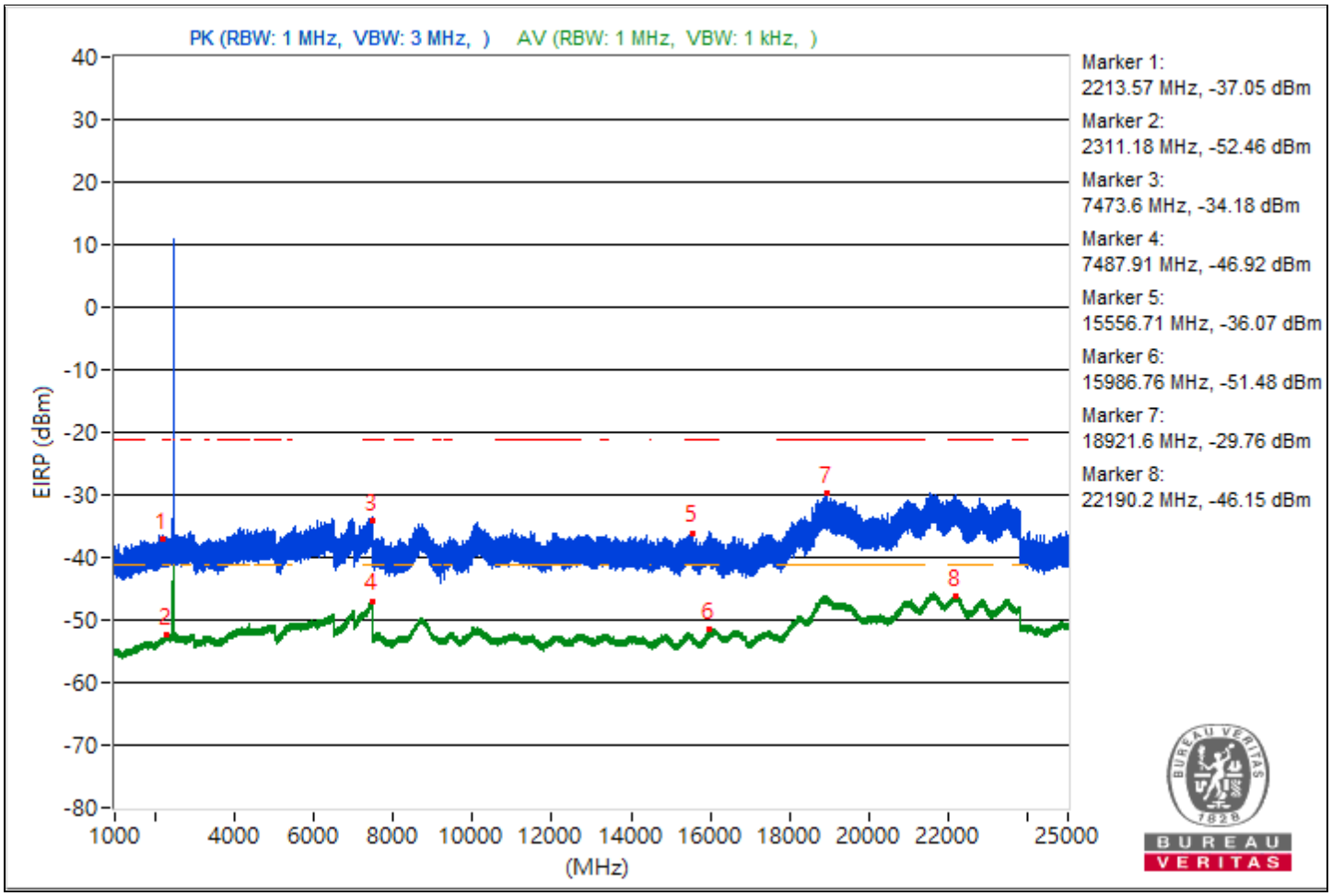
Note: Margin value = Emission Level - Limit value



RF Mode	802.11b	Channel	CH 13：2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Unwanted Emissions								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	2213.57	58.21 PK	74	-15.79	-44.73	-48.35	6.12	-37.05
2	2311.18	42.8 AV	54	-11.2	-61.84	-61.36	6.12	-52.46
3	7473.6	61.08 PK	74	-12.92	-41.76	-45.77	6.12	-34.18
4	7487.91	48.34 AV	54	-5.66	-55.77	-56.35	6.12	-46.92
5	15556.71	59.19 PK	74	-14.81	-47.71	-43.62	6.12	-36.07
6	15986.76	43.78 AV	54	-10.22	-61.03	-60.22	6.12	-51.48
7	18921.6	65.5 PK	74	-8.5	-36.68	-43.61	6.12	-29.76
8	22190.2	49.11 AV	54	-4.89	-55.7	-54.9	6.12	-46.15

Note: Margin value = Emission Level - Limit value



Bandedge table

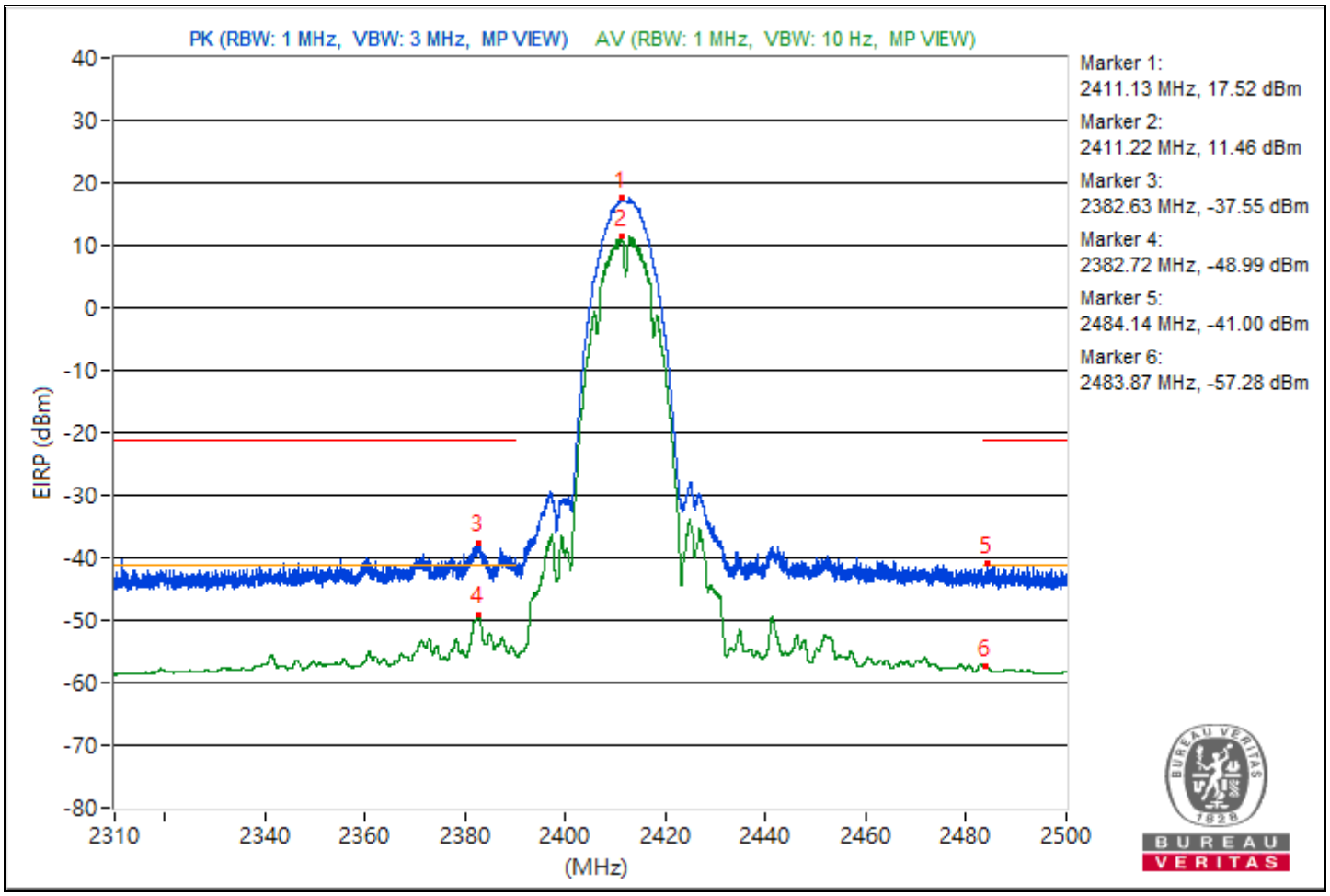
1TX

RF Mode	802.11b	Channel	CH 1：2412 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2411.13	112.78 PK			14.41	3.11	17.52
2	*2411.22	106.72 AV			8.35	3.11	11.46
3	2382.63	57.71 PK	74	-16.29	-40.66	3.11	-37.55
4	2382.72	46.27 AV	54	-7.73	-52.1	3.11	-48.99
5	2484.14	54.26 PK	74	-19.74	-44.11	3.11	-41
6	2483.87	37.98 AV	54	-16.02	-60.39	3.11	-57.28

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

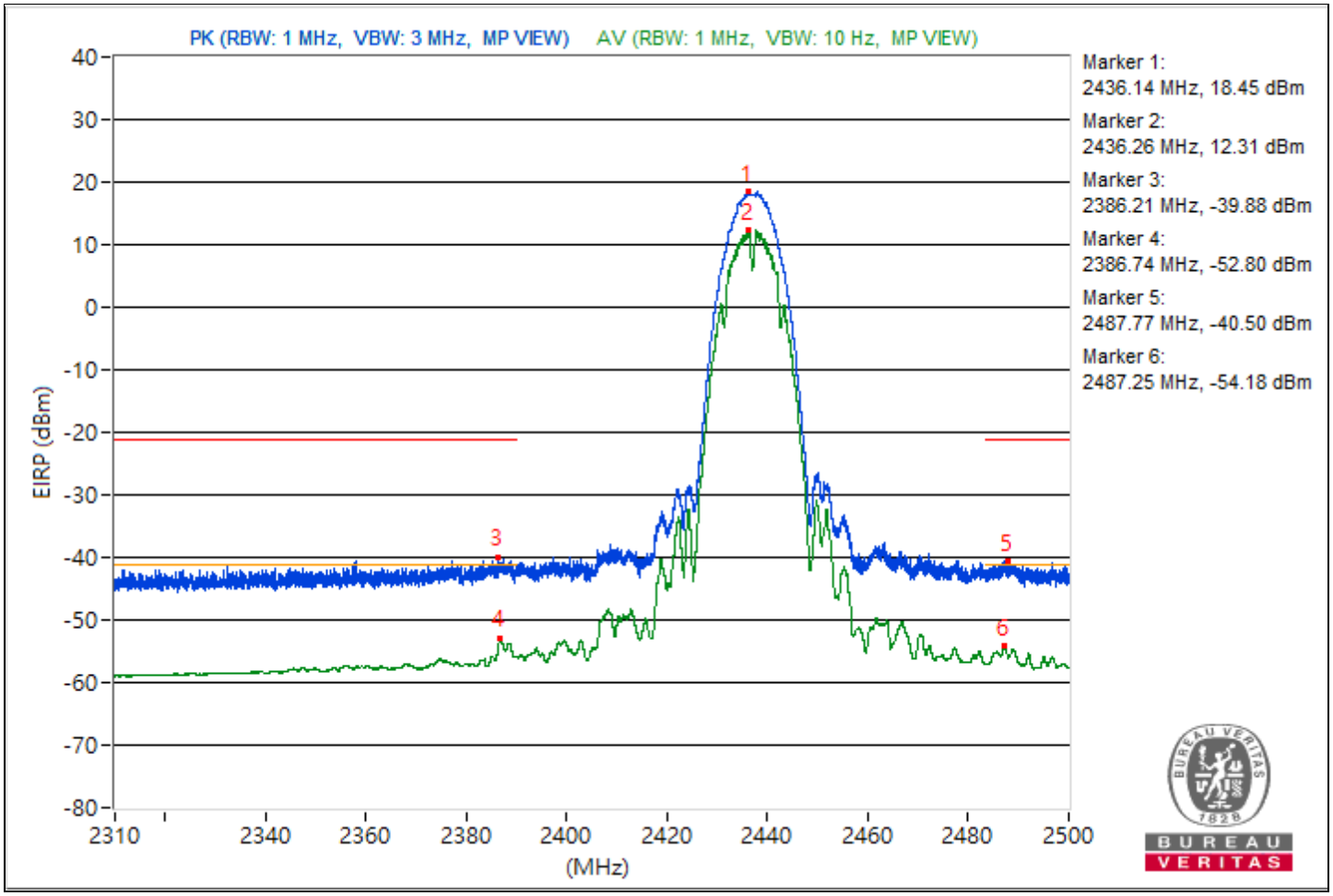


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2436.14	113.71 PK			15.34	3.11	18.45
2	*2436.26	107.57 AV			9.2	3.11	12.31
3	2386.21	55.38 PK	74	-18.62	-42.99	3.11	-39.88
4	2386.74	42.46 AV	54	-11.54	-55.91	3.11	-52.8
5	2487.77	54.76 PK	74	-19.24	-43.61	3.11	-40.5
6	2487.25	41.08 AV	54	-12.92	-57.29	3.11	-54.18

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

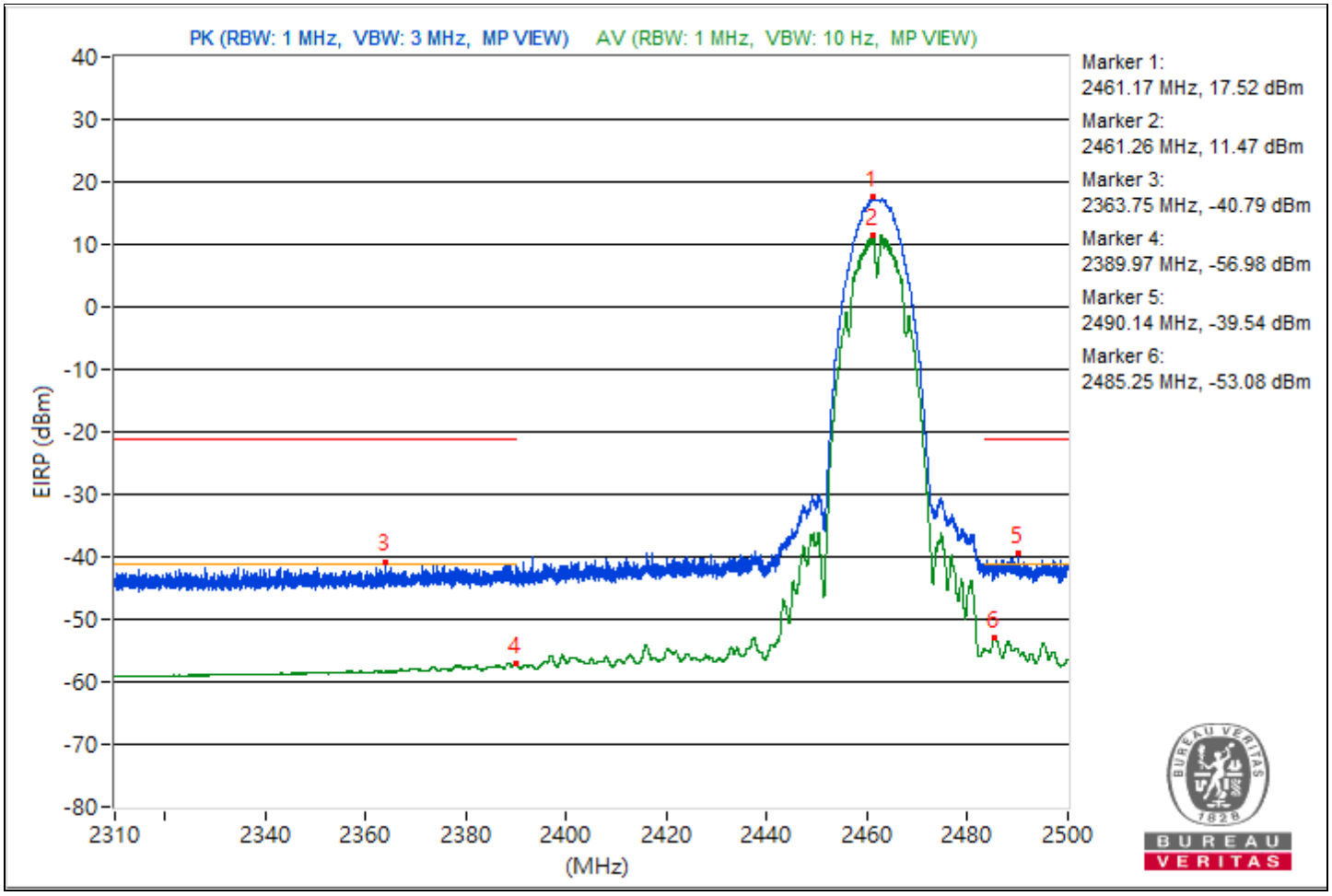


RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2461.17	112.78 PK			14.41	3.11	17.52
2	*2461.26	106.73 AV			8.36	3.11	11.47
3	2363.75	54.47 PK	74	-19.53	-43.9	3.11	-40.79
4	2389.97	38.28 AV	54	-15.72	-60.09	3.11	-56.98
5	2490.14	55.72 PK	74	-18.28	-42.65	3.11	-39.54
6	2485.25	42.18 AV	54	-11.82	-56.19	3.11	-53.08

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

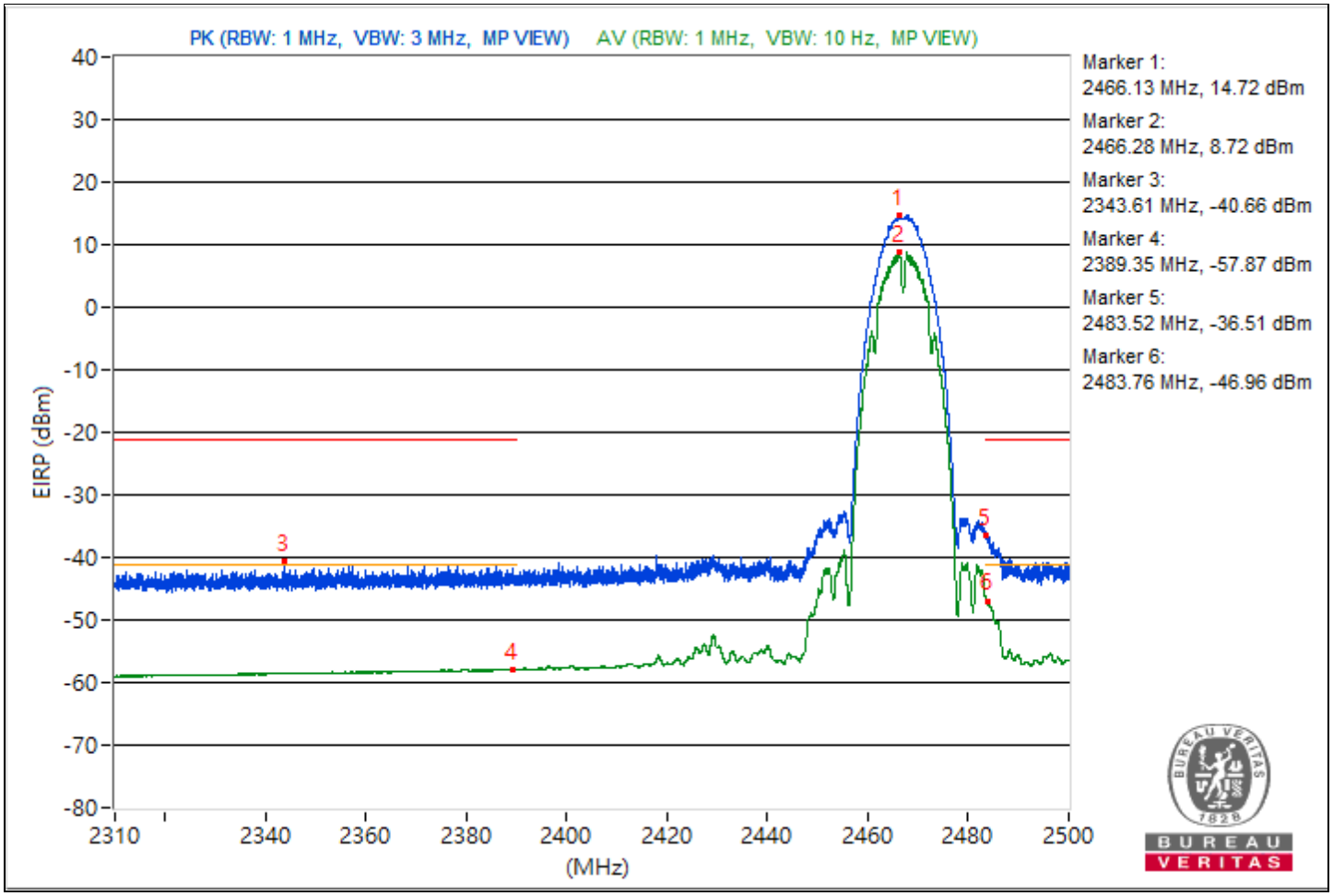


RF Mode	802.11b	Channel	CH 12：2467 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2466.13	109.98 PK			11.61	3.11	14.72
2	*2466.28	103.98 AV			5.61	3.11	8.72
3	2343.61	54.6 PK	74	-19.4	-43.77	3.11	-40.66
4	2389.35	37.39 AV	54	-16.61	-60.98	3.11	-57.87
5	2483.52	58.75 PK	74	-15.25	-39.62	3.11	-36.51
6	2483.76	48.3 AV	54	-5.7	-50.07	3.11	-46.96

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

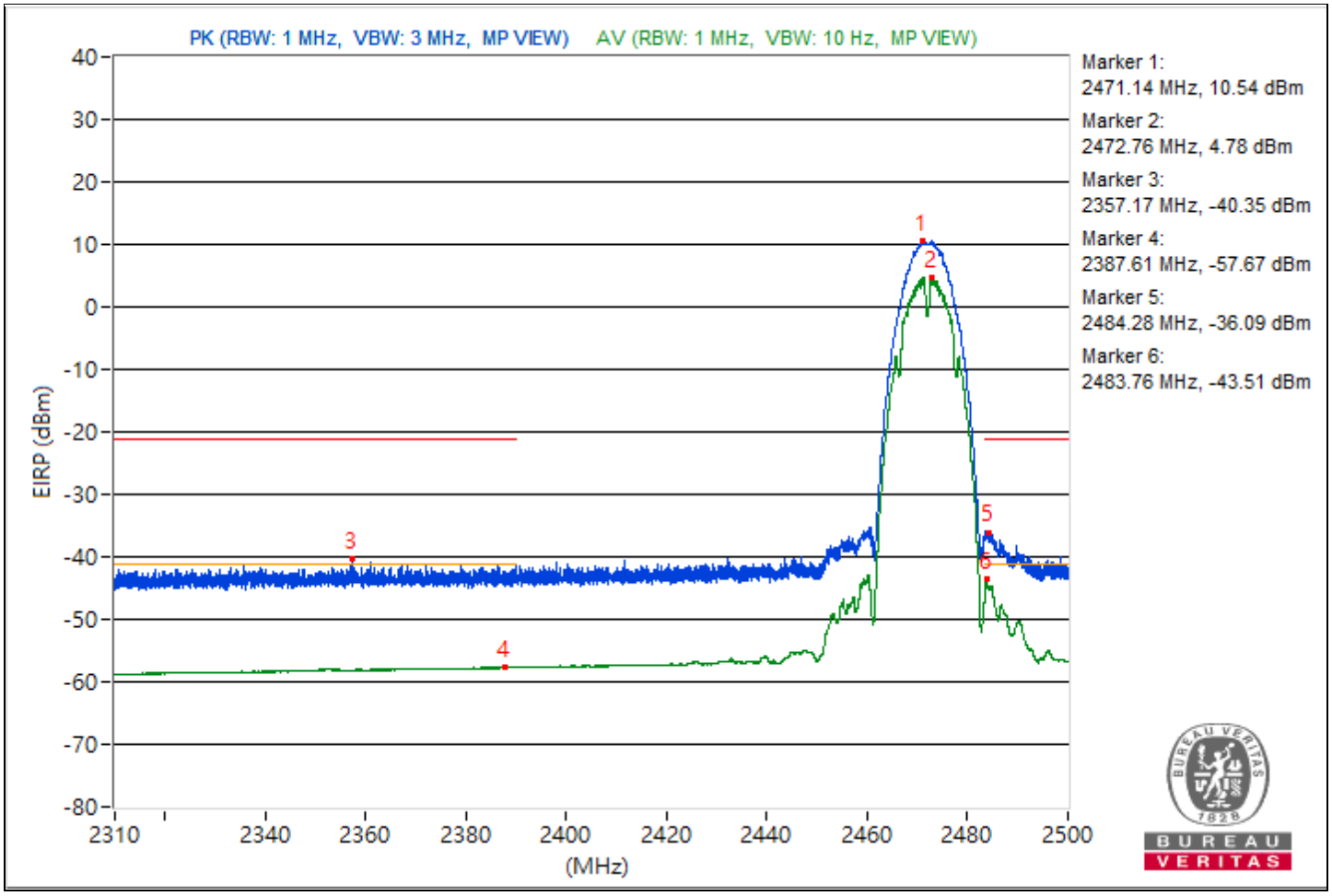


RF Mode	802.11b	Channel	CH 13：2472 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2471.14	105.8 PK			7.43	3.11	10.54
2	*2472.76	100.04 AV			1.67	3.11	4.78
3	2357.17	54.91 PK	74	-19.09	-43.46	3.11	-40.35
4	2387.61	37.59 AV	54	-16.41	-60.78	3.11	-57.67
5	2484.28	59.17 PK	74	-14.83	-39.2	3.11	-36.09
6	2483.76	51.75 AV	54	-2.25	-46.62	3.11	-43.51

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.



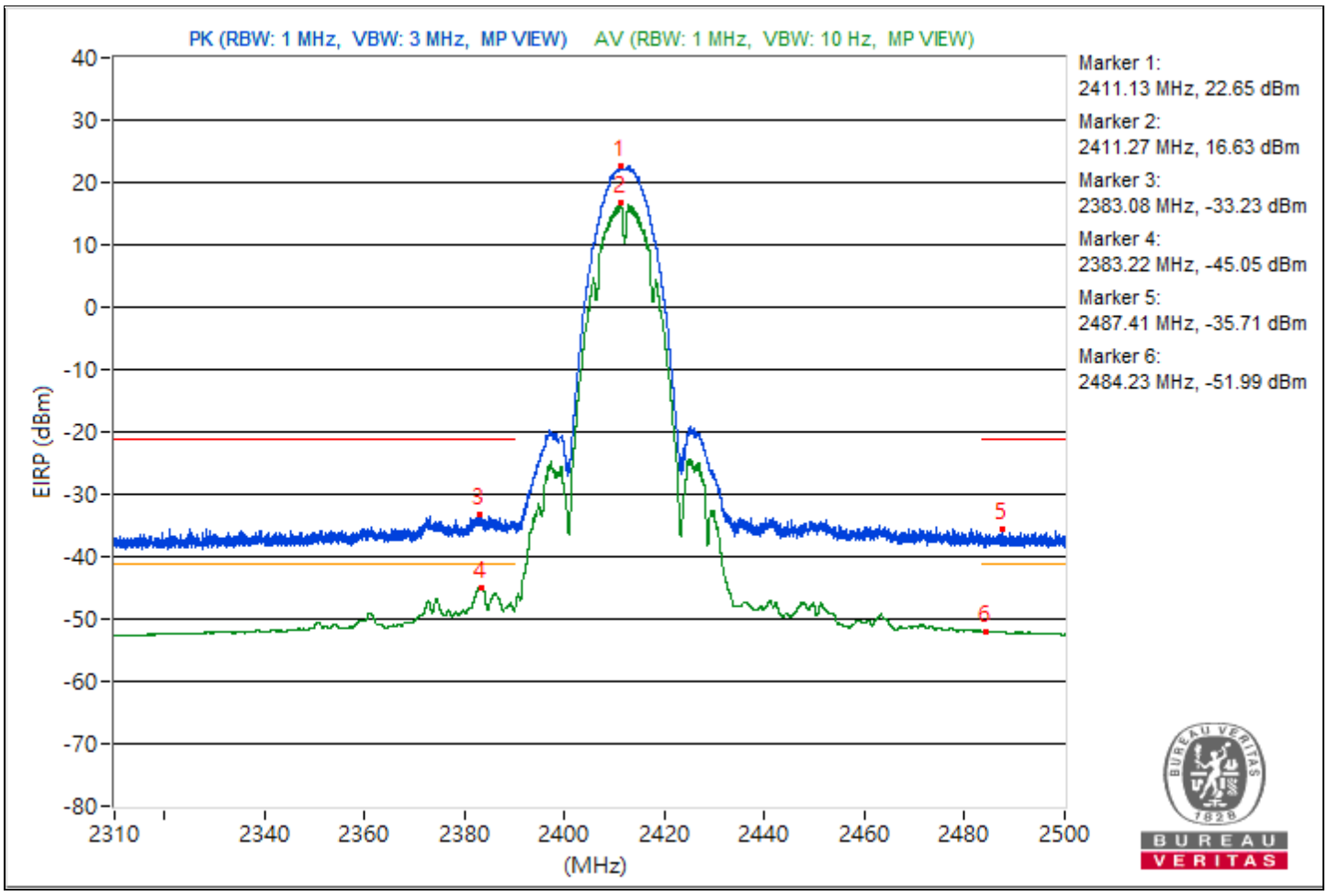
2TX

RF Mode	802.11b	Channel	CH 1：2412 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2411.13	117.91 PK			13.5	13.53	6.12	22.65
2	*2411.27	111.89 AV			7.5	7.5	6.12	16.63
3	2383.08	62.03 PK	74	-11.97	-45.1	-40.7	6.12	-33.23
4	2383.22	50.21 AV	54	-3.79	-59.29	-51.89	6.12	-45.05
5	2487.41	59.55 PK	74	-14.45	-45.78	-44.07	6.12	-35.71
6	2484.23	43.27 AV	54	-10.73	-61.1	-61.15	6.12	-51.99

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

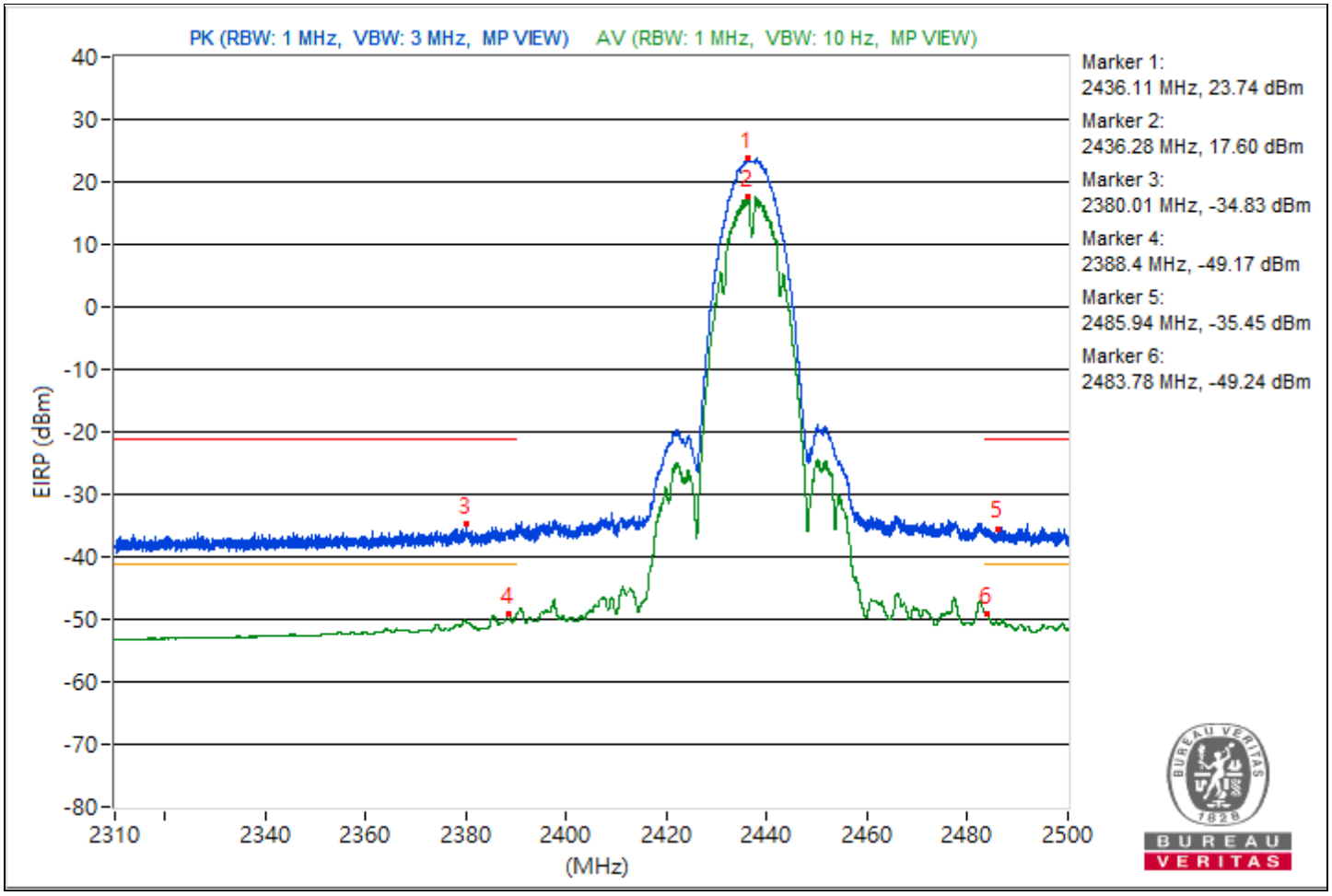


RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2436.11	119 PK			14.58	14.64	6.12	23.74
2	*2436.28	112.86 AV			8.44	8.5	6.12	17.6
3	2380.01	60.43 PK	74	-13.57	-43.04	-45.12	6.12	-34.83
4	2388.4	46.09 AV	54	-7.91	-58.86	-57.8	6.12	-49.17
5	2485.94	59.81 PK	74	-14.19	-46	-43.5	6.12	-35.45
6	2483.78	46.02 AV	54	-7.98	-56.91	-60.58	6.12	-49.24

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

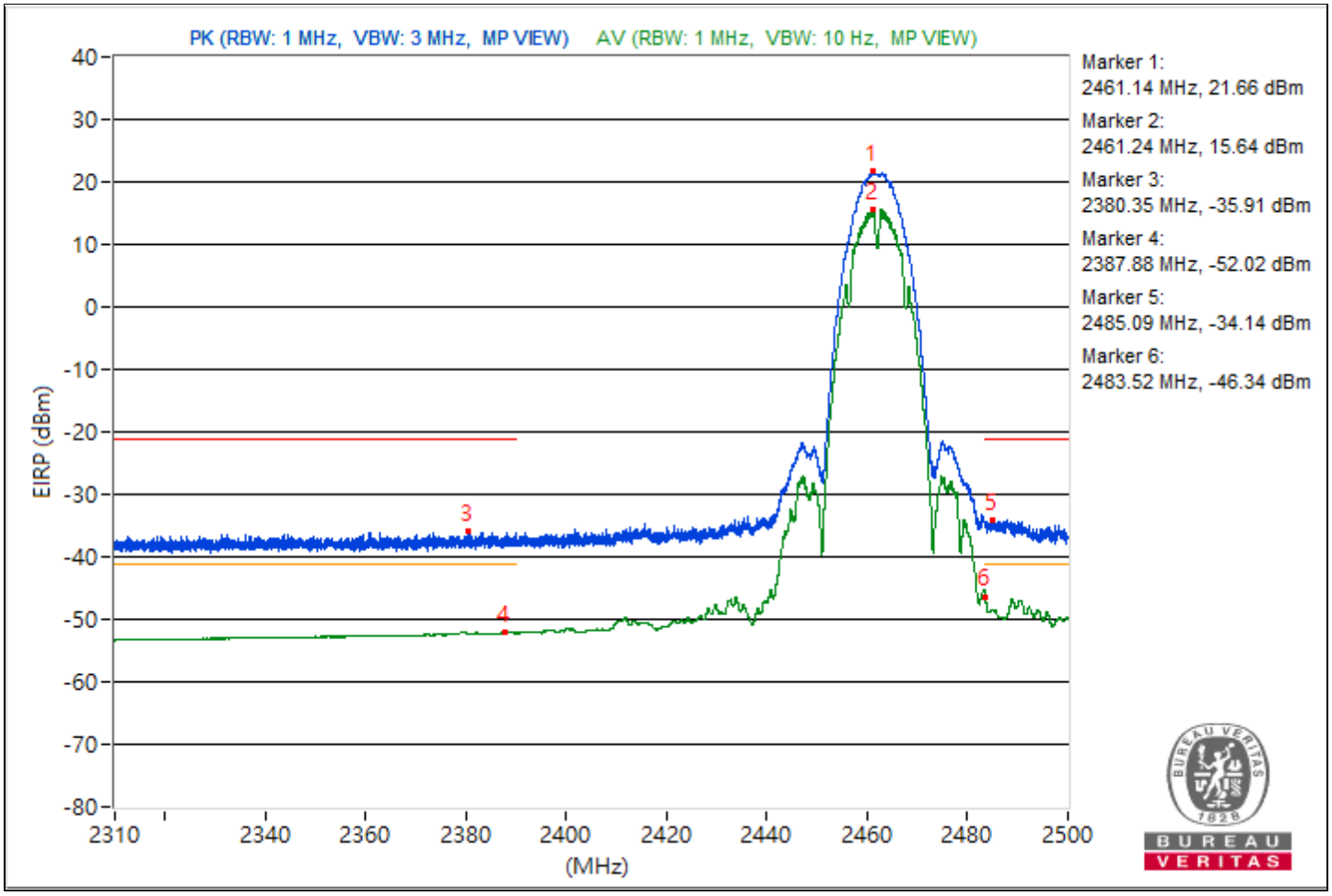


RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2461.14	116.92 PK			12.54	12.53	6.12	21.66
2	*2461.24	110.9 AV			6.54	6.49	6.12	15.64
3	2380.35	59.35 PK	74	-14.65	-43.62	-47.19	6.12	-35.91
4	2387.88	43.24 AV	54	-10.76	-61.44	-60.88	6.12	-52.02
5	2485.09	61.12 PK	74	-12.88	-41.99	-45.11	6.12	-34.14
6	2483.52	48.92 AV	54	-5.08	-56.47	-54.65	6.12	-46.34

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

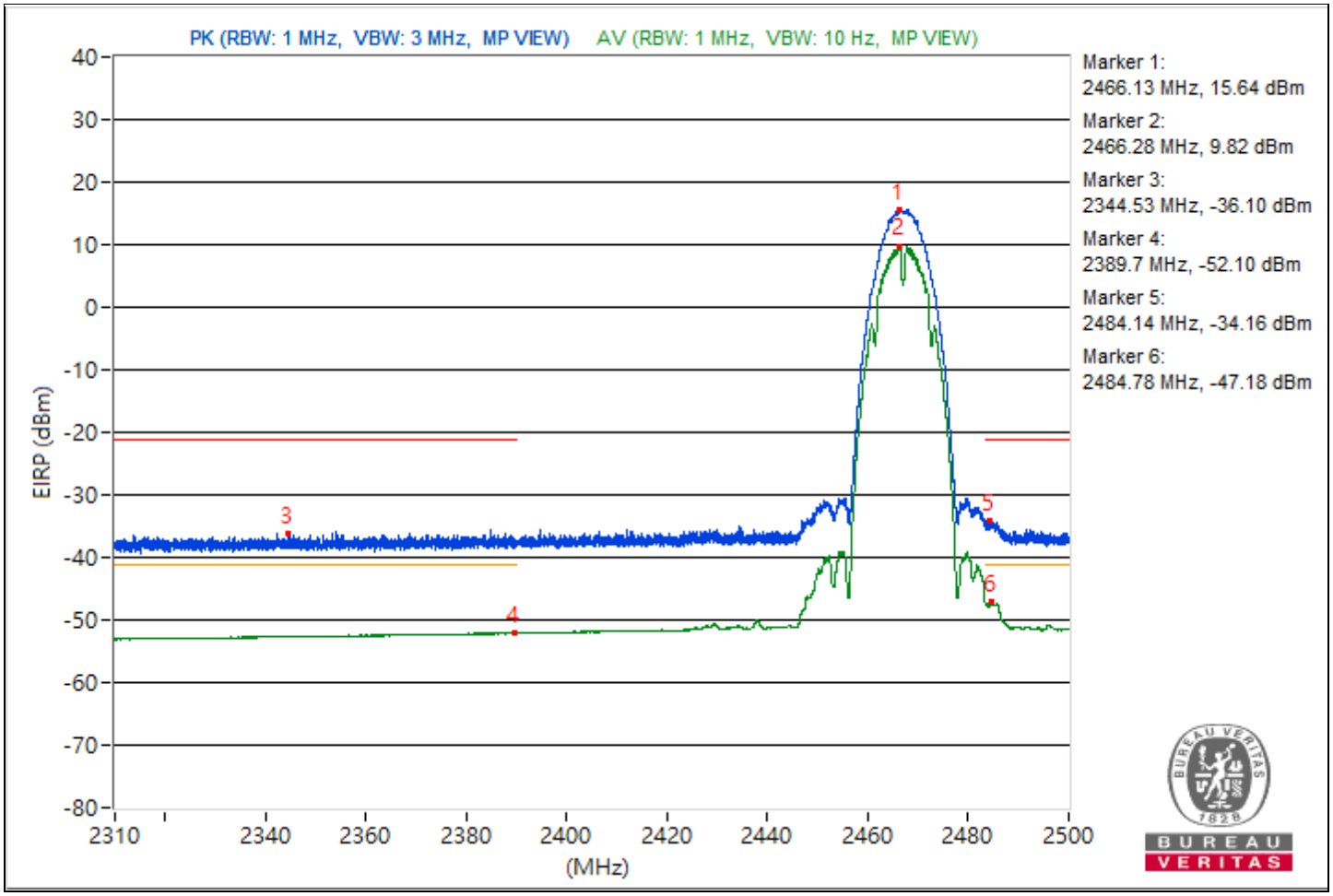


RF Mode	802.11b	Channel	CH 12：2467 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2466.13	110.9 PK			6.49	6.53	6.12	15.64
2	*2466.28	105.08 AV			0.68	0.69	6.12	9.82
3	2344.53	59.16 PK	74	-14.84	-47.63	-43.7	6.12	-36.1
4	2389.7	43.16 AV	54	-10.84	-61.64	-60.85	6.12	-52.1
5	2484.14	61.1 PK	74	-12.9	-44.16	-42.56	6.12	-34.16
6	2484.78	48.08 AV	54	-5.92	-55.78	-56.93	6.12	-47.18

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

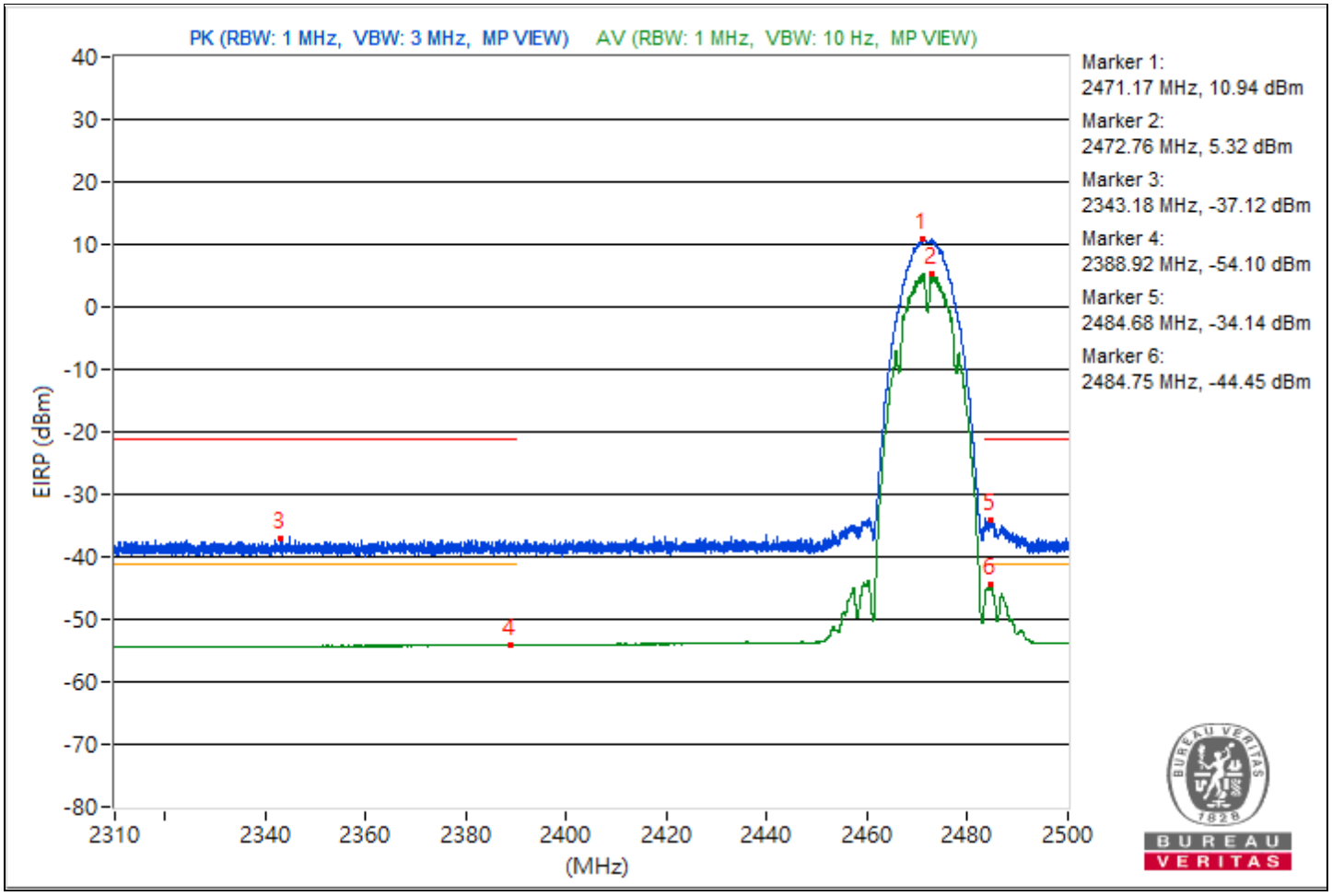


RF Mode	802.11b	Channel	CH 13：2472 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Input Power	3.3 Vdc
Environmental Conditions	25°C, 65% RH	Tested By	Jisyong Wang

Conducted Band Edge								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	*2471.17	106.2 PK			1.77	1.86	6.12	10.94
2	*2472.76	100.58 AV			-3.77	-3.84	6.12	5.32
3	2343.18	58.14 PK	74	-15.86	-47.59	-45.22	6.12	-37.12
4	2388.92	41.16 AV	54	-12.84	-63.44	-63.03	6.12	-54.1
5	2484.68	61.12 PK	74	-12.88	-42.77	-43.85	6.12	-34.14
6	2484.75	50.81 AV	54	-3.19	-52.83	-54.49	6.12	-44.45

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.



Mode B, For Radiated measurement:

1TX

RF Mode	802.11b	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4824.00	50.5 PK	74.0	-23.5	2.34 H	159	40.7	9.8
2	4824.00	36.6 AV	54.0	-17.4	2.34 H	159	26.8	9.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4824.00	50.4 PK	74.0	-23.6	1.52 V	88	40.6	9.8
2	4824.00	36.4 AV	54.0	-17.6	1.52 V	88	26.6	9.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	50.5 PK	74.0	-23.5	2.33 H	162	40.8	9.7
2	4874.00	36.5 AV	54.0	-17.5	2.33 H	162	26.8	9.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	50.4 PK	74.0	-23.6	1.55 V	96	40.7	9.7
2	4874.00	36.4 AV	54.0	-17.6	1.55 V	96	26.7	9.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4924.00	50.5 PK	74.0	-23.5	2.30 H	157	40.7	9.8
2	4924.00	36.5 AV	54.0	-17.5	2.30 H	157	26.7	9.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4924.00	50.4 PK	74.0	-23.6	1.56 V	92	40.6	9.8
2	4924.00	36.3 AV	54.0	-17.7	1.56 V	92	26.5	9.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 12：2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4934.00	50.3 PK	74.0	-23.7	2.38 H	155	40.5	9.8
2	4934.00	36.5 AV	54.0	-17.5	2.38 H	155	26.7	9.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4934.00	50.4 PK	74.0	-23.6	1.53 V	88	40.6	9.8
2	4934.00	36.4 AV	54.0	-17.6	1.53 V	88	26.6	9.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 13：2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4944.00	50.6 PK	74.0	-23.4	2.35 H	160	40.7	9.9
2	4944.00	36.6 AV	54.0	-17.4	2.35 H	160	26.7	9.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4944.00	50.5 PK	74.0	-23.5	1.54 V	87	40.6	9.9
2	4944.00	36.5 AV	54.0	-17.5	1.54 V	87	26.6	9.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

2TX

RF Mode	802.11b	Channel	CH 1：2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4824.00	51.0 PK	74.0	-23.0	1.85 H	355	41.2	9.8
2	4824.00	36.9 AV	54.0	-17.1	1.85 H	355	27.1	9.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4824.00	50.2 PK	74.0	-23.8	1.56 V	227	40.4	9.8
2	4824.00	36.4 AV	54.0	-17.6	1.56 V	227	26.6	9.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 6：2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	50.5 PK	74.0	-23.5	1.88 H	356	40.8	9.7
2	4874.00	36.6 AV	54.0	-17.4	1.88 H	356	26.9	9.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	50.3 PK	74.0	-23.7	1.55 V	238	40.6	9.7
2	4874.00	36.4 AV	54.0	-17.6	1.55 V	238	26.7	9.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 11：2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4924.00	50.8 PK	74.0	-23.2	1.80 H	358	41.0	9.8
2	4924.00	36.8 AV	54.0	-17.2	1.80 H	358	27.0	9.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4924.00	50.6 PK	74.0	-23.4	1.55 V	223	40.8	9.8
2	4924.00	36.6 AV	54.0	-17.4	1.55 V	223	26.8	9.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 12：2467 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4934.00	50.7 PK	74.0	-23.3	1.87 H	358	40.9	9.8
2	4934.00	36.7 AV	54.0	-17.3	1.87 H	358	26.9	9.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4934.00	50.5 PK	74.0	-23.5	1.57 V	226	40.7	9.8
2	4934.00	36.5 AV	54.0	-17.5	1.57 V	226	26.7	9.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

RF Mode	802.11b	Channel	CH 13：2472 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3 °C, 70.3 % RH
Tested By	Rex Wang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4944.00	50.9 PK	74.0	-23.1	1.83 H	354	41.0	9.9
2	4944.00	36.8 AV	54.0	-17.2	1.83 H	354	26.9	9.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4944.00	50.5 PK	74.0	-23.5	1.58 V	228	40.6	9.9
2	4944.00	36.6 AV	54.0	-17.4	1.58 V	228	26.7	9.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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