

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)

Report No.: RFBARR-WTW-P23100181-1

FCC ID: C3K2093

Product: Dual-band wireless accessory radio

Brand: Microsoft

Model No.: 2093

Received Date: 2023/9/28

Test Date: 2023/12/4 ~ 2024/1/7

Issued Date: 2024/2/16

Applicant: Microsoft Corporation

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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FCC Registration / 788550 / TW0003

Designation Number:

Approved by: _____

Jeremy Lin

, Date: _____

2024/2/16

Jeremy Lin / Project Engineer

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Prepared by : Polly Chien / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P23100181-1	Original release.	2024/2/16

1 Certificate

Product: Dual-band wireless accessory radio

Brand: Microsoft

Test Model: 2093

Sample Status: Engineering sample

Applicant: Microsoft Corporation

Test Date: 2023/12/4 ~ 2024/1/7

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)

Measurement ANSI C63.10-2013

procedure: KDB 789033 D02 General UNII Test Procedure New Rules 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 E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(1) 15.407(a)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1) 15.407(a)(3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	Occupied Bandwidth	-	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -10.65 dB at 0.36875 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -6.6 dB at 53.28 MHz
15.407(b) (1/10) 15.407(b) (4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -5.3 dB at 11650.00 MHz
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note: 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:

Measurement	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.371 dB
Power Spectral Density	-	1.017 dB
6 dB Bandwidth	-	206.5 Hz
Occupied Bandwidth	-	72 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.88 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	2.44 dB
	30 MHz ~ 1 GHz	2.95 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 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 of EUT

Product	Dual-band wireless accessory radio
Brand	Microsoft
Test Model	2093
Status of EUT	Engineering sample
Power Supply Rating	3.3Vdc from host equipment
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	Up to 72.2 Mbps
Operating Frequency	5180 ~ 5240MHz, 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 802.11n (HT20): 4 5745 ~ 5825MHz: 802.11n (HT20): 5
Output Power	5180 ~ 5240MHz: 11.143 mW (10.47 dBm) 5745 ~ 5825MHz: 10.447 mW (10.19 dBm)
EUT Category	Indoor Access Point

Note:

1. There are WLAN (2.4 GHz & 5 GHz) technology used for the EUT.
2. 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 No.	RF Chain NO.	Brand	Model	Antenna Type	Connector Type	Frequency range	Gain (dBi)
ACCY1	0	Microsoft	ACC1	PCB	NA	2.4 ~ 2.4835GHz	3.75
						5.15~5.25GHz (5G B1)	2.62
						5.725~5.85GHz (5G B4)	2.5
ACCY2	1	Microsoft	ACC2	PCB	NA	2.4 ~ 2.4835GHz	N/A
						5.15~5.25GHz (5G B1)	5.2
						5.725~5.85GHz (5G B4)	6

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

2. The EUT provides 1 completed transmitter and 2 receivers.

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11n (HT20)	1TX (Fixed Chain 0)	2RX

3.3 Channel List

FOR 5180 ~ 5240 MHz

4 channels are provided for 802.11n (HT20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

FOR 5745 ~ 5825 MHz:

5 channels are provided for 802.11n (HT20):

Channel	Frequency	Channel	Frequency
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

3.4 Test Mode Applicability and Tested Channel Detail

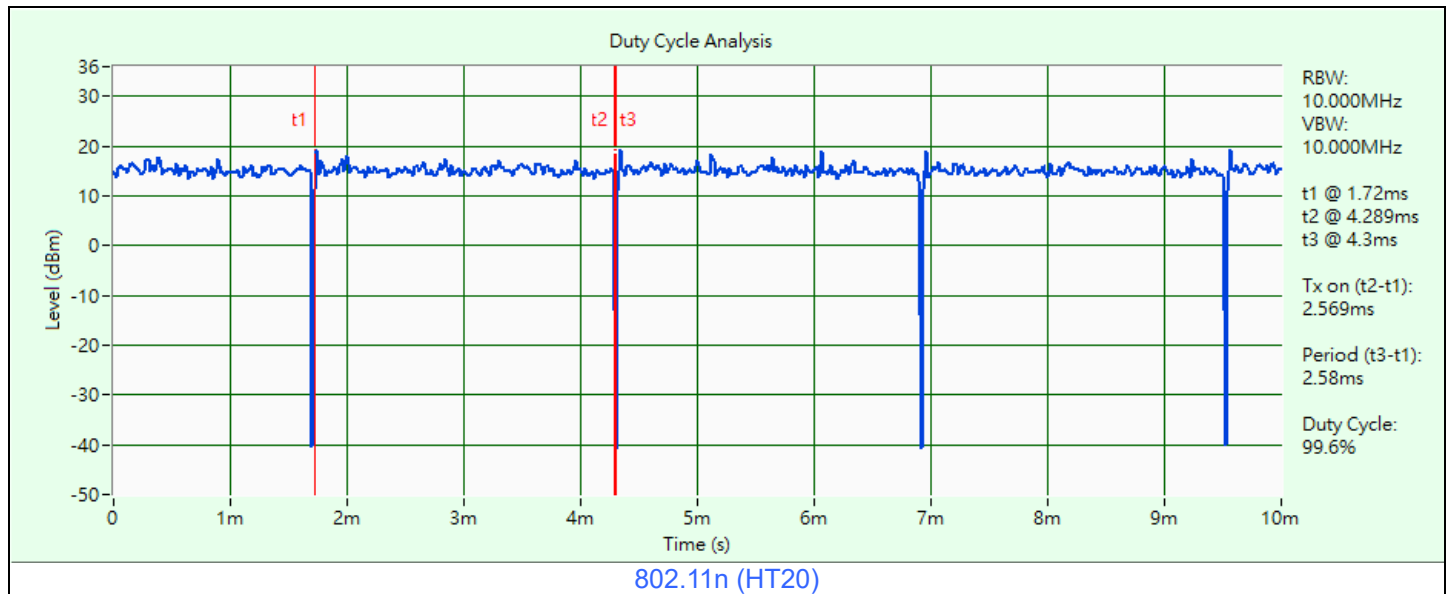
Pre-Scan:	<ol style="list-style-type: none"> EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Worst Case:	1. X-axis/ Y-axis/ Z-axis Worst Condition: Y-axis

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

Test Item	EUT Configure Mode	Mode	Tx Condition	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	A	802.11n (HT20)	1Tx	36, 40, 48, 149, 157, 165	BPSK	MCS0
6 dB Bandwidth	A	802.11n (HT20)	1Tx	149, 157, 165	BPSK	MCS0
Occupied Bandwidth / Power Spectral Density	A	802.11n (HT20)	1Tx	36, 40, 48, 149, 157, 165	BPSK	MCS0
Frequency Stability	A	802.11n (HT20)	-	36	unmodulated	-
AC Power Conducted Emissions	C	802.11n (HT20)	1Tx	36	BPSK	MCS0
Unwanted Emissions below 1 GHz	A, B	802.11n (HT20)	1Tx	36	BPSK	MCS0
Unwanted Emissions above 1 GHz	A, B	802.11n (HT20)	1Tx	36, 40, 48, 149, 157, 165	BPSK	MCS0
EUT Configure Mode:	A	EUT only (remove 50 ohm terminator and Connect to the appropriate equipment)				
	B	EUT with 50 ohm terminator				
	C	EUT with antenna				

3.5 Duty Cycle of Test Signal

802.11n (HT20): Duty cycle = 2.569 ms / 2.58 ms x 100% = 99.6%

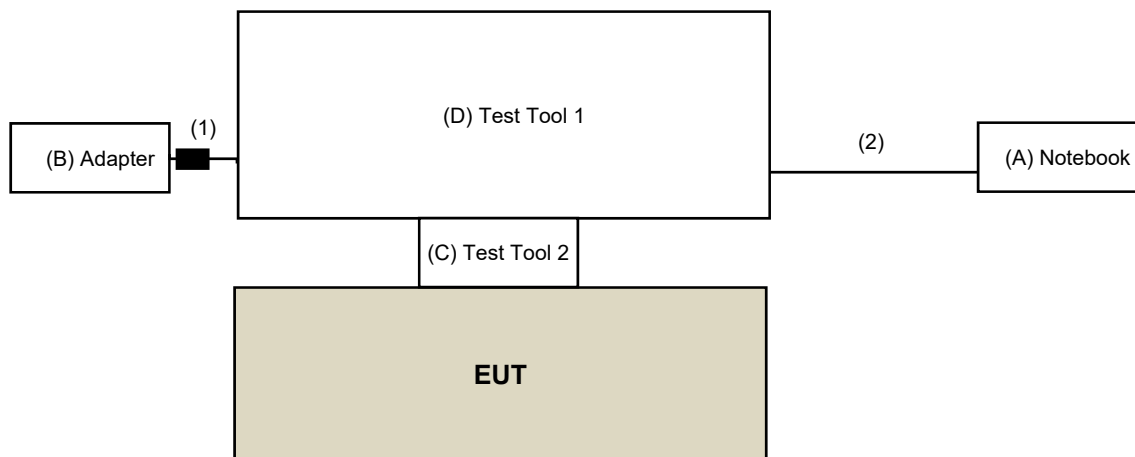


3.6 Test Program Used and Operation Descriptions

Controlling software QA UI(MT7663) Version : 0.0.2.6 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

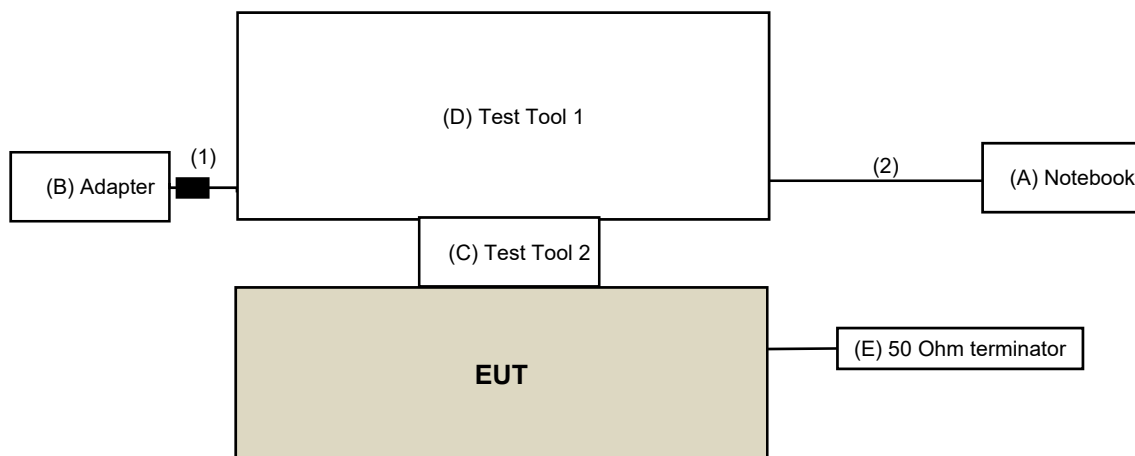
Mode A, C



Under Table

Remote Site

Mode B



Under Table

Remote Site

3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	DELL	Inspiron 14R	8LRKKW1	N/A	Provided by Lab
B	Adapter	CUI INC	SW112-5-N	N/A	N/A	Supplied by applicant
C	Test Tool 1	MediaTek Inc	N/A	N/A	N/A	Supplied by applicant
D	Test Tool 2	MediaTek Inc	N/A	N/A	N/A	Supplied by applicant
E	50 Ohm terminator	WOKEN	WTER-18S2	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC cable	1	1.5	No	1	Supplied by applicant Attached on the adapter
2	USB cable	1	1.8	Yes	0	Supplied by applicant

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 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer Keysight	8990B	MY51000485	2023/1/19	2024/1/18
Wideband Power Sensor Keysight	N1923A	MY58020002	2023/1/18	2024/1/17
		MY58140009	2023/1/18	2024/1/17

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/1/7

4.2 Power Spectral Density

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: 2024/1/7

4.3 6 dB Bandwidth

Refer to section 4.2 to get information of the instruments.

4.4 Occupied Bandwidth

Refer to section 4.2 to get information of the instruments.

4.5 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
3-channel DC power supply JIN YIH Technology	ODP3033	ODP30332128138	N/A	N/A
Digital Multimeter Fluke	87-III	70360742	2023/7/6	2024/7/5
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
Temperature & Humidity Chamber Terchy	HRM-120RF	931022	2023/12/19	2024/12/18

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/1/7

4.6 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011276	01	2023/02/01	2024/01/31
	E1-011312	10	2023/01/30	2024/01/29
	E1-011591	17	2023/02/01	2024/01/31
DC-LISN Schwarzbeck	NNBM 8126G	8126G-069	2023/11/07	2024/11/06
EMI Test Receiver R&S	ESCS 30	100288	2023/01/03	2024/01/02
Fixed Attenuator SGH	BNC10W10dB	PAD-COND2-01	2023/09/02	2024/09/01
LISN R&S	ESH2-Z5	100100	2023/03/07	2024/03/06
	ESH3-Z5	100312	2023/09/12	2024/09/11
RF Coaxial Cable Woken	5D-FB	Cable-cond2-01	2023/09/02	2024/09/01
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2023/08/31	2024/08/30

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2023/12/14

4.7 Unwanted Emissions below 1 GHz

For Conducted measurement

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Signal & Spectrum Analyzer R&S	FSW43	101866	2023/1/10	2024/1/9
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: 2023/12/4

For Radiated measurement

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Max-Full	MFA-440H	AT93021705	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-472	2023/10/16	2024/10/15
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/01/03	2024/01/02
Loop Antenna Electro-Metrics	EM-6879	269	2023/09/23	2024/09/22
Loop Antenna TESEQ	HLA 6121	45745	2023/08/08	2024/08/07
MXE EMI Receiver Keysight	N9038A	MY55420137	2023/05/03	2024/05/02
Preamplifier EMCI	EMC 330H	980112	2023/09/27	2024/09/26
	EMC001340	980201	2023/09/27	2024/09/26
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2023/01/07	2024/01/06
RF Coaxial Cable Woken	8D-FB	Cable-Ch10-01	2023/09/27	2024/09/26
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MG-7802	N/A	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 5.
2. Tested Date: 2023/12/13

4.8 Unwanted Emissions above 1 GHz

For Conducted measurement

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Signal & Spectrum Analyzer R&S	FSW43	101866	2023/1/10	2024/1/9
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: 2023/12/4

For Radiated measurement

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Max-Full	MFA-440H	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	7	N/A	N/A
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/01/03	2024/01/02
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-969	2023/11/12	2024/11/11
	BBHA 9170	148	2023/11/12	2024/11/11
MXE EMI Receiver Keysight	N9038A	MY55420137	2023/05/03	2024/05/02
Notch Filter Micro-Tronics	BRM17690	004	2023/01/11	2024/01/10
	BRM50716	060	2023/01/11	2024/01/10
Preamplifier EMCI	EMC 012645	980115	2023/09/27	2024/09/26
	EMC 184045	980116	2023/09/27	2024/09/26
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2023/07/08	2024/07/07
	EMC102-KM-KM-3000	150929	2023/07/08	2024/07/07
	EMC104-SM-SM- 8000+3000	171005	2023/09/27	2024/09/26
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	EMC104-SM-SM- 1000(140807)	2023/09/27	2024/09/26
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MG-7802	N/A	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 5.
2. Tested Date: 2023/12/13

5 Limits of Test Items

5.1 RF Output Power

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	Fixed point-to-point Access Point	1 Watt (30 dBm)
	Indoor Access Point	1 Watt (30 dBm)
	Mobile and Portable client device	250mW (24 dBm)

Operation Band	Limit
U-NII-3	1 Watt (30 dBm)

5.2 Power Spectral Density

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	17 dBm/MHz
	Fixed point-to-point Access Point	
	Indoor Access Point	
	Mobile and Portable client device	11 dBm/MHz

Operation Band	Limit
U-NII-3	30 dBm/500 kHz

5.3 6 dB Bandwidth

Within the 5.725-5.850 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.4 Occupied Bandwidth

The results are for reference only.

5.5 Frequency Stability

The frequency of the carrier signal shall be maintained within band of operation.

5.6 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.

5.7 Unwanted Emissions below 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

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).

5.8 Unwanted Emissions above 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

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.

Limits of unwanted emission out of the restricted bands

Applicable To	Limit	
789033 D02 General UNII Test Procedure New Rules v02r01	Field Strength at 3 m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)

For transmitters operating in the 5.15-5.25 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)

For transmitters operating in the 5.725-5.850 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2 (dBμV/m) ^{*1} PK: 105.2 (dBμV/m) ^{*2} PK: 110.8 (dBμV/m) ^{*3} PK: 122.2 (dBμV/m) ^{*4}

^{*1} beyond 75 MHz or more above of the band edge.

^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

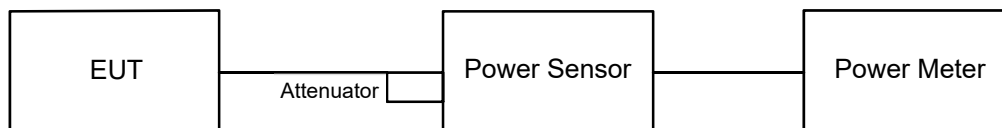
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts).}$$

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup

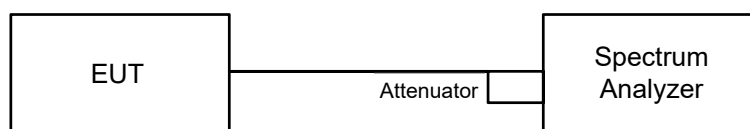


6.1.2 Test Procedure

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst and set the detector to average. Duty factor is not added to measured value.

6.2 Power Spectral Density

6.2.1 Test Setup



6.2.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW \geq 3 MHz, Detector = RMS
- Sweep points \geq $[2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing \leq RBW / 2, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

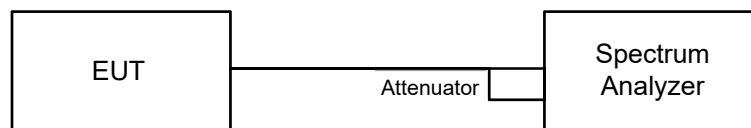
For specified measurement bandwidth 500 kHz:

Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz, Set VBW \geq 1 MHz, Detector = RMS
- Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where $\text{BWCF} = 10\log(500 \text{ kHz}/300 \text{ kHz})$
- Sweep points \geq $[2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing \leq RBW / 2, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

6.3 6 dB Bandwidth

6.3.1 Test Setup

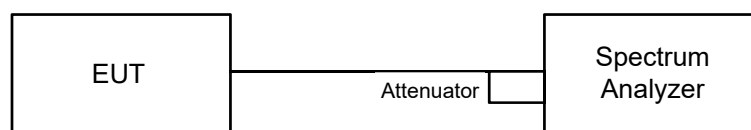


6.3.2 Test Procedure

- Set resolution bandwidth (RBW) = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.4 Occupied Bandwidth

6.4.1 Test Setup

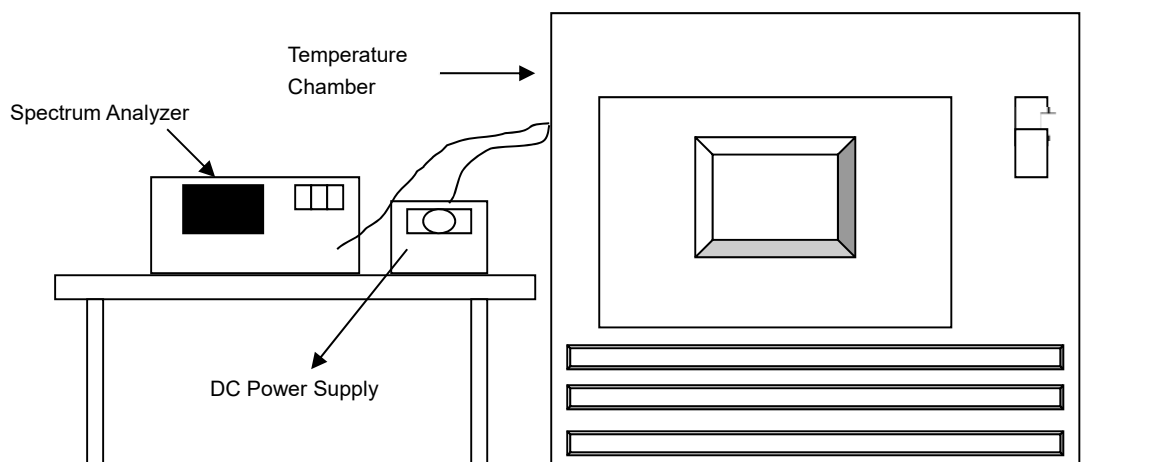


6.4.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean power of a given emission.

6.5 Frequency Stability

6.5.1 Test Setup

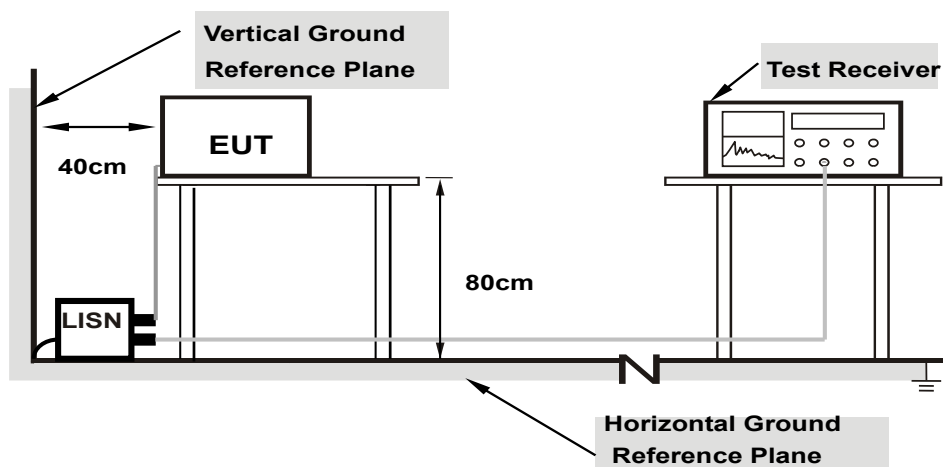


6.5.2 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

6.6 AC Power Conducted Emissions

6.6.1 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).

6.6.2 Test Procedure

- 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.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

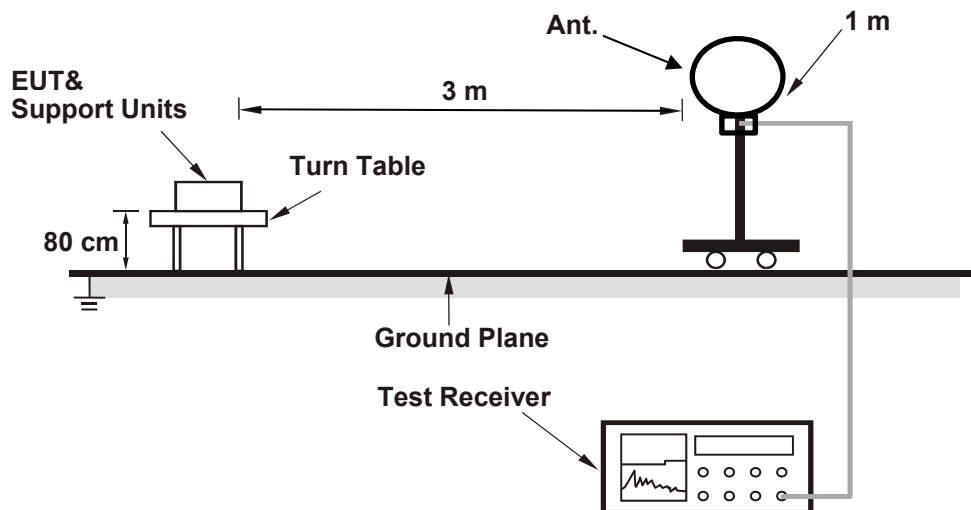
Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

6.7 Unwanted Emissions below 1 GHz

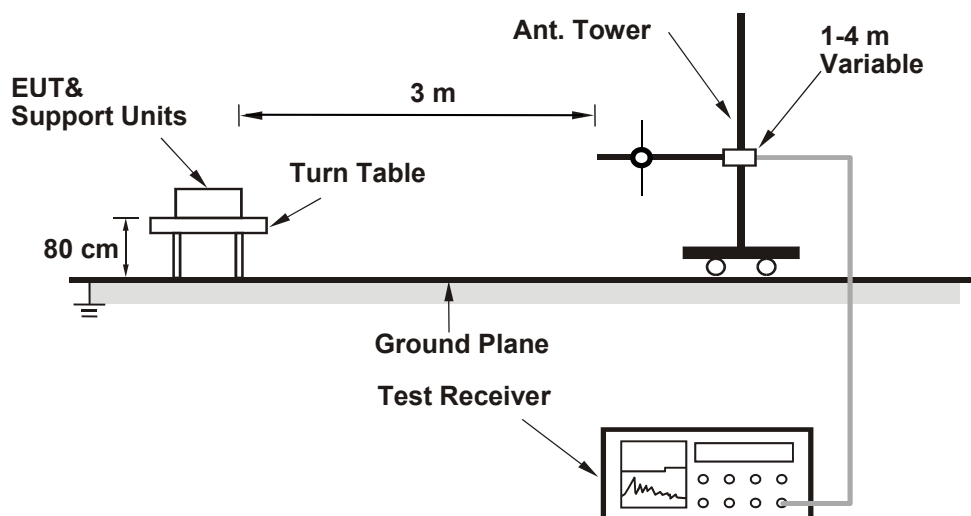
6.7.1 Test Setup

For Radiated Configuration:

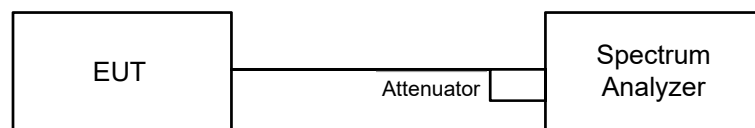
For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For Conducted Configuration:



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

6.7.2 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.

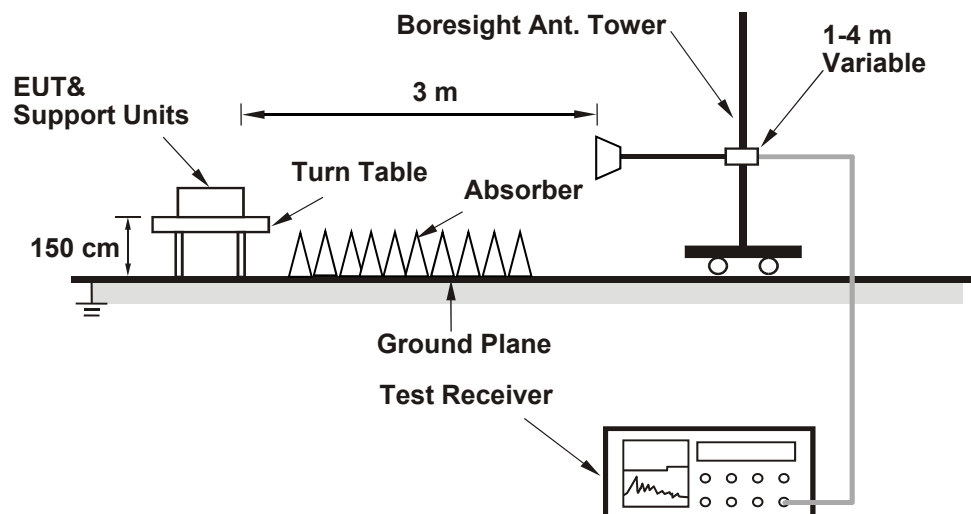
Notes:

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.

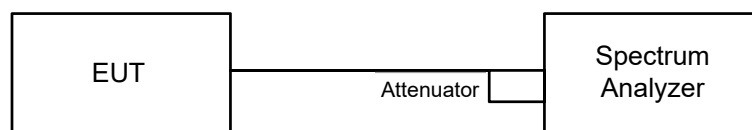
6.8 Unwanted Emissions above 1 GHz

6.8.1 Test Setup

For Radiated Configuration:



For Conducted Configuration:



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

6.8.2 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 $\geq 1/T$ (Duty cycle < 98%) or 10 Hz (Duty cycle $\geq 98\%$) 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 RF Output Power

Input Power:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
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Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
36	5180	11.143	10.47	30	Pass
40	5200	11.015	10.42	30	Pass
48	5240	10.328	10.14	30	Pass
149	5745	10.28	10.12	30	Pass
157	5785	10.447	10.19	30	Pass
165	5825	10.423	10.18	30	Pass

Notes:

1. For U-NII-1, the antenna gain is 2.62 dBi < 6 dBi, so the output power limit shall not be reduced.
2. For U-NII-3, the antenna gain is 2.5 dBi < 6 dBi, so the output power limit shall not be reduced.

7.2 Power Spectral Density

Input Power:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
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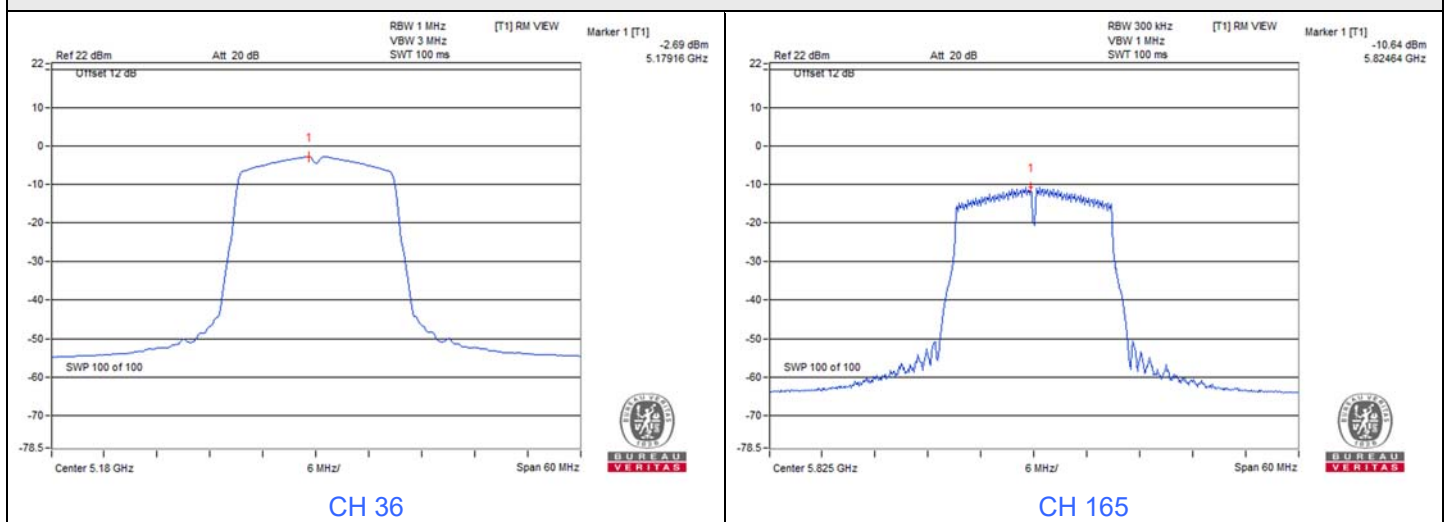
Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
36	5180	-2.69	17	Pass
40	5200	-2.72	17	Pass
48	5240	-2.73	17	Pass

Note: For U-NII-1, the antenna gain is 2.62 dBi < 6dBi, so the power density limit shall not be reduced.

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
149	5745	-10.77	-8.55	30	Pass
157	5785	-10.72	-8.50	30	Pass
165	5825	-10.64	-8.42	30	Pass

Note: For U-NII-3, the antenna gain is 2.5 dBi < 6 dBi, so the power density limit shall not be reduced.

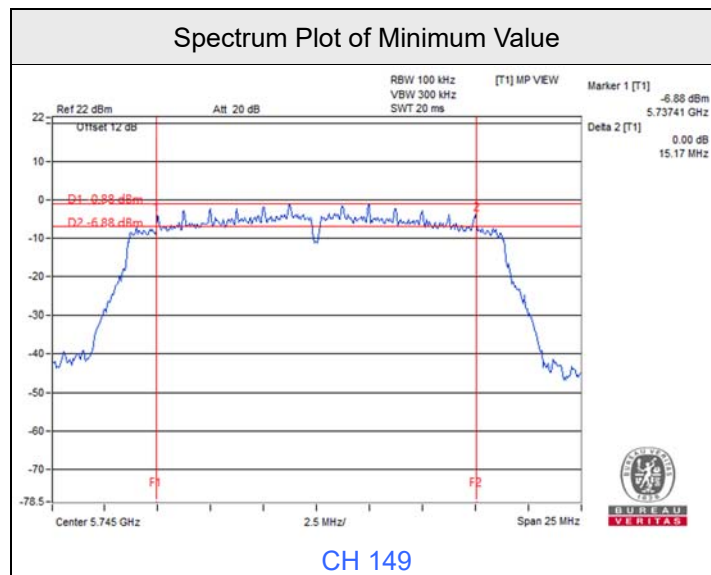
Spectrum Plot of Maximum Value



7.3 6 dB Bandwidth

Input Power:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
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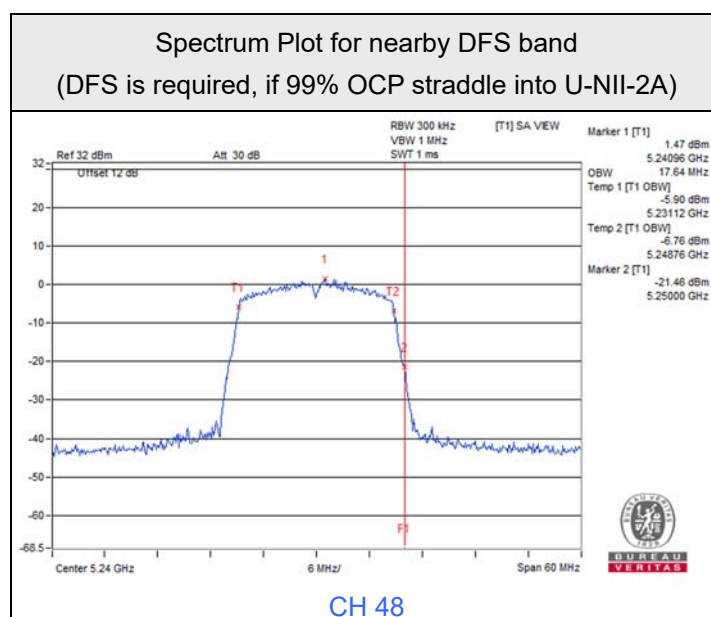
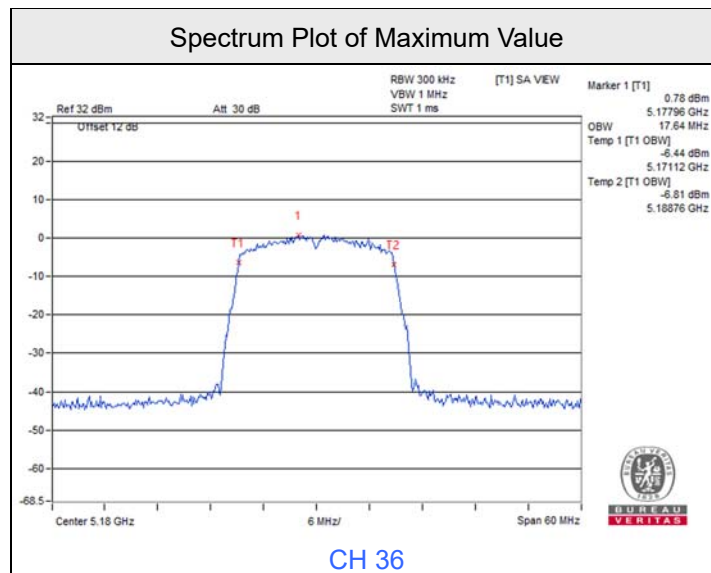
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
149	5745	15.17	0.5	Pass
157	5785	15.21	0.5	Pass
165	5825	15.19	0.5	Pass

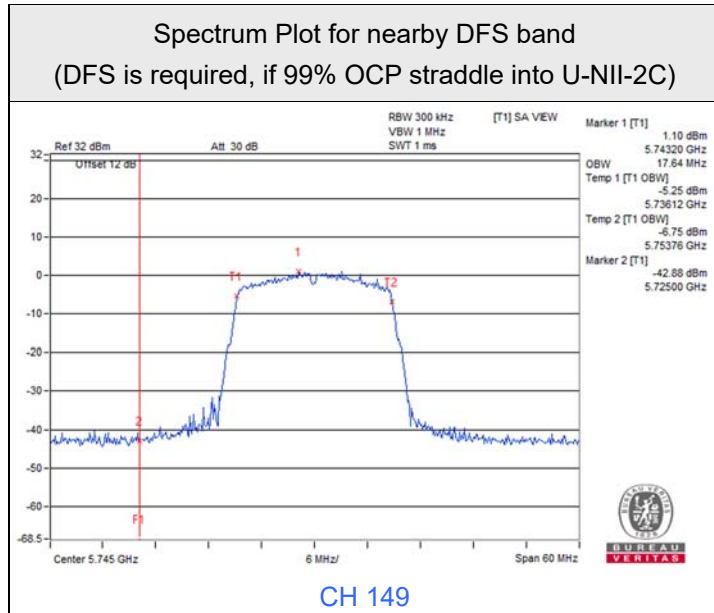


7.4 Occupied Bandwidth

Input Power:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
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Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.64
40	5200	17.64
48	5240	17.64
149	5745	17.64
157	5785	17.64
165	5825	17.64





7.5 Frequency Stability

Input Power:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin
--------------	---------	---------------------------	--------------	------------	-----------

Frequency Stability Versus Temperature									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
60	3.3	5179.9777	Pass	5179.9765	Pass	5179.9758	Pass	5179.9748	Pass
50	3.3	5179.9847	Pass	5179.9857	Pass	5179.984	Pass	5179.9839	Pass
40	3.3	5179.9804	Pass	5179.9779	Pass	5179.9801	Pass	5179.9762	Pass
30	3.3	5179.9917	Pass	5179.9882	Pass	5179.9868	Pass	5179.9872	Pass
20	3.3	5180.0034	Pass	5180.0032	Pass	5180.0026	Pass	5180.0044	Pass
10	3.3	5180.0012	Pass	5179.9982	Pass	5180.0006	Pass	5180.0012	Pass
0	3.3	5180.0159	Pass	5180.0162	Pass	5180.0177	Pass	5180.0198	Pass
-10	3.3	5180.0163	Pass	5180.0173	Pass	5180.0168	Pass	5180.0197	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	3.795	5180.013	Pass	5180.015	Pass	5180.0117	Pass	5180.0111	Pass
	3.3	5180.0034	Pass	5180.0032	Pass	5180.0026	Pass	5180.0044	Pass
	2.805	5180.0093	Pass	5180.0101	Pass	5180.0102	Pass	5180.01	Pass

7.6 AC Power Conducted Emissions

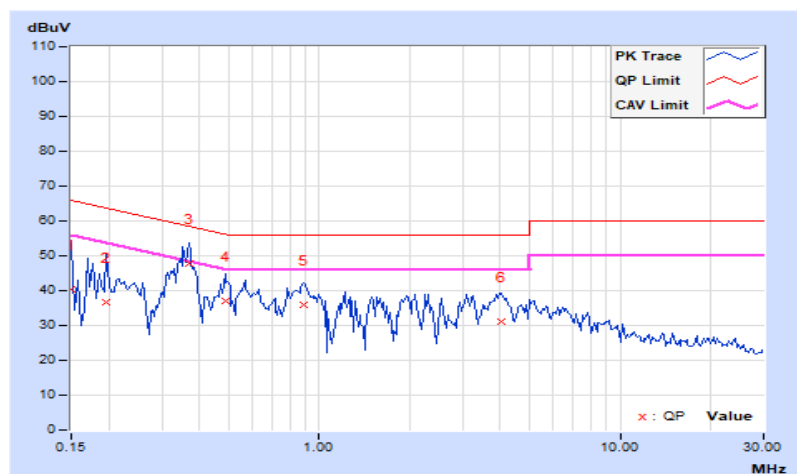
Mode C

RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 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, 64% RH
Tested By	Vincent Chen		

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	0.15000	10.37	30.15	11.91	40.52	22.28	66.00	56.00	-25.48	-33.72
2	0.19687	10.40	26.36	7.24	36.76	17.64	63.74	53.74	-26.98	-36.10
3	0.36875	10.48	37.40	17.19	47.88	27.67	58.53	48.53	-10.65	-20.86
4	0.48594	10.50	26.67	7.28	37.17	17.78	56.24	46.24	-19.07	-28.46
5	0.89219	10.53	25.27	5.51	35.80	16.04	56.00	46.00	-20.20	-29.96
6	4.04688	10.66	20.63	2.14	31.29	12.80	56.00	46.00	-24.71	-33.20

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

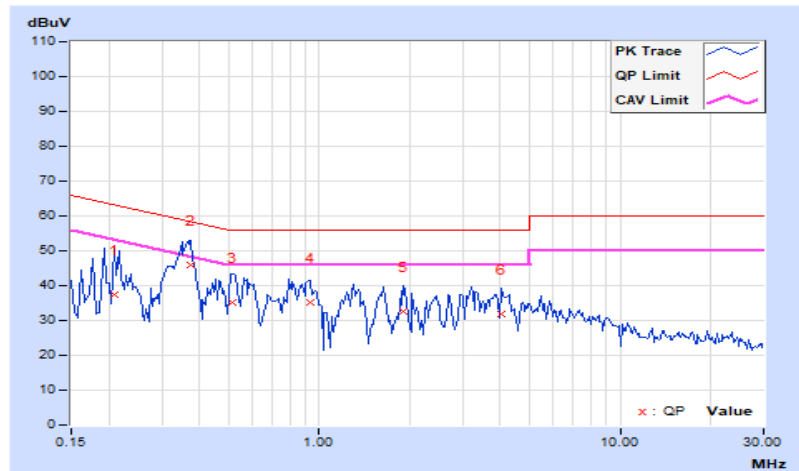


RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 64% RH
Tested By	Vincent Chen		

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	0.20859	10.44	27.03	6.28	37.47	16.72	63.26	53.26	-25.79	-36.54
2	0.37656	10.52	35.53	15.42	46.05	25.94	58.35	48.35	-12.30	-22.41
3	0.51328	10.54	24.62	6.55	35.16	17.09	56.00	46.00	-20.84	-28.91
4	0.93125	10.56	24.54	6.01	35.10	16.57	56.00	46.00	-20.90	-29.43
5	1.91016	10.58	22.15	5.76	32.73	16.34	56.00	46.00	-23.27	-29.66
6	4.01172	10.73	21.08	4.39	31.81	15.12	56.00	46.00	-24.19	-30.88

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



7.7 Unwanted Emissions below 1 GHz

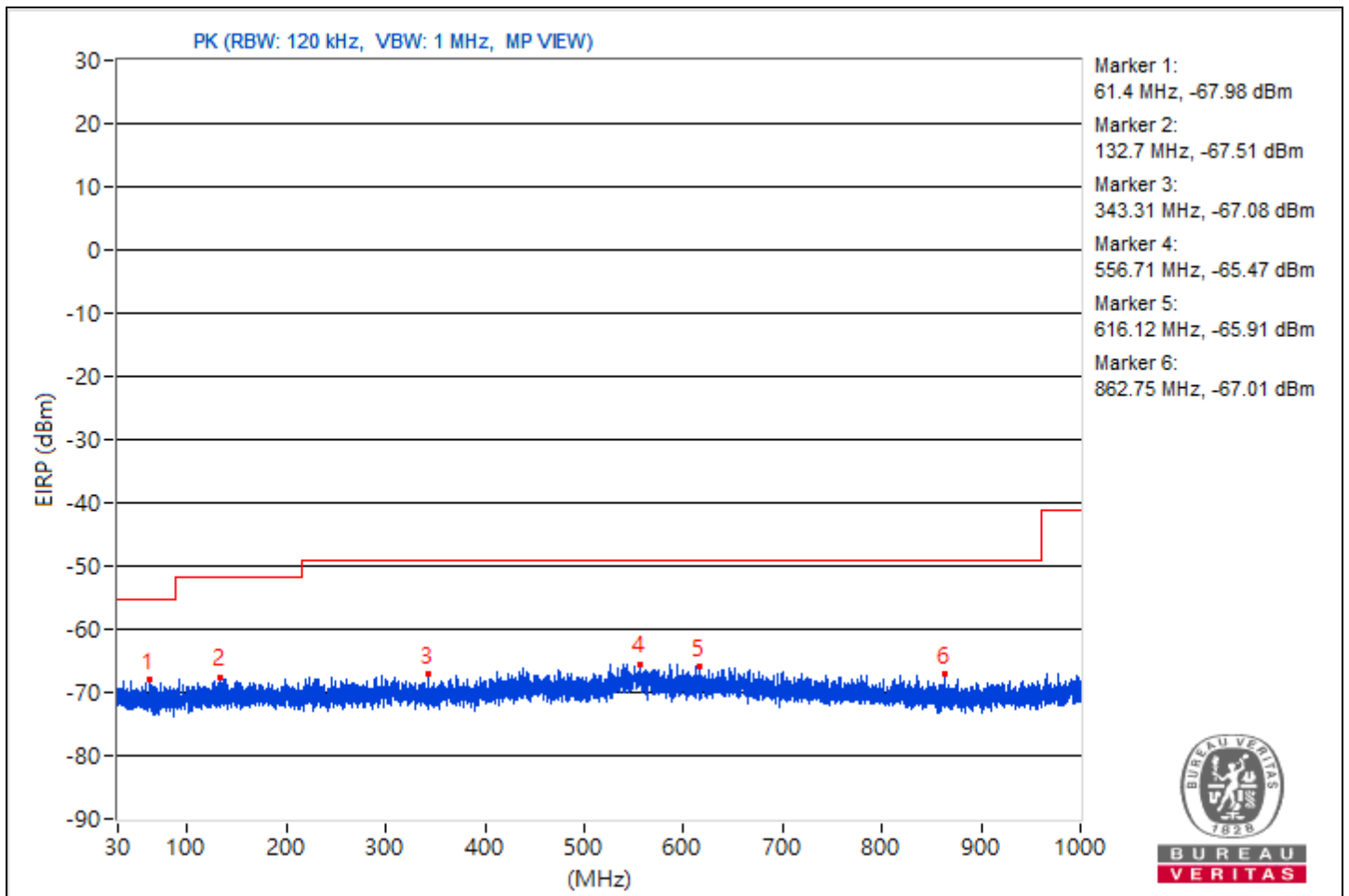
Mode A

RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	30 MHz ~ 1 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex 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	61.4	27.28 PK	40	-12.72	-77.27	9.29	-67.98
2	132.7	27.75 PK	43.5	-15.75	-76.8	9.29	-67.51
3	343.31	28.18 PK	46	-17.82	-76.37	9.29	-67.08
4	556.71	29.79 PK	46	-16.21	-74.76	9.29	-65.47
5	616.12	29.35 PK	46	-16.65	-75.2	9.29	-65.91
6	862.75	28.25 PK	46	-17.75	-76.3	9.29	-67.01

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

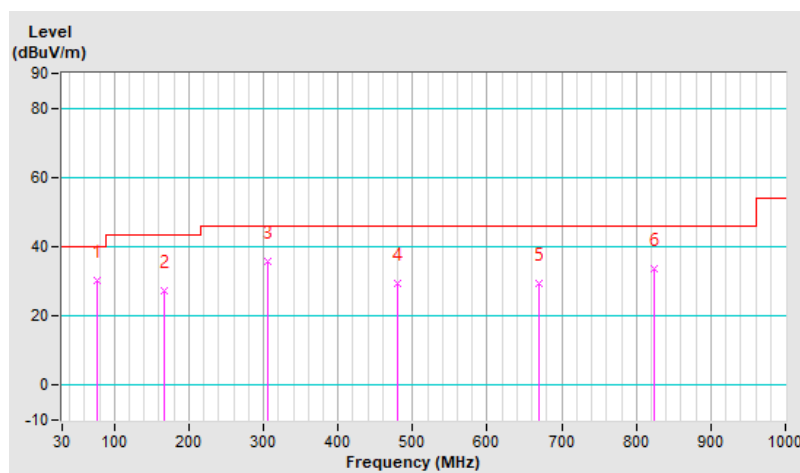
RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 73% RH
Tested By	Vincent Chen		

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	77.53	30.2 QP	40.0	-9.8	1.00 H	283	47.0	-16.8
2	167.74	27.1 QP	43.5	-16.4	1.00 H	248	40.2	-13.1
3	305.48	35.7 QP	46.0	-10.3	2.00 H	320	47.5	-11.8
4	479.11	29.5 QP	46.0	-16.5	1.00 H	222	37.0	-7.5
5	670.20	29.6 QP	46.0	-16.4	1.50 H	260	33.4	-3.8
6	823.46	33.7 QP	46.0	-12.3	1.50 H	130	34.6	-0.9

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.

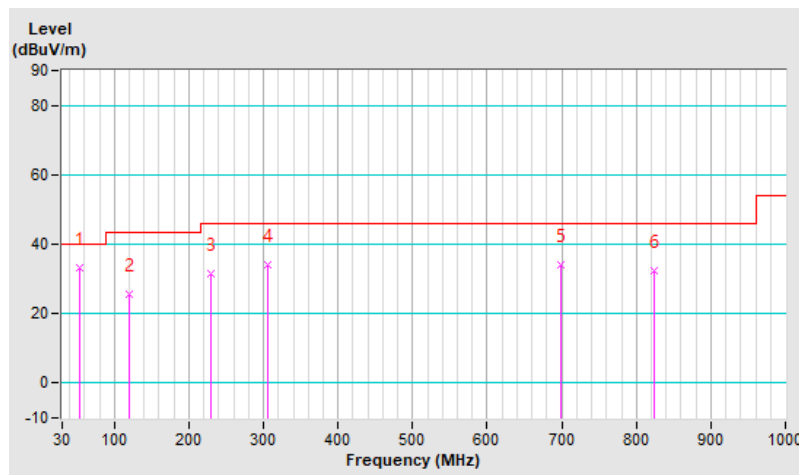


RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 73% RH
Tested By	Vincent Chen		

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	53.28	33.4 QP	40.0	-6.6	1.00 V	178	45.9	-12.5
2	120.21	25.6 QP	43.5	-17.9	1.00 V	175	40.2	-14.6
3	228.85	31.6 QP	46.0	-14.4	1.50 V	263	47.1	-15.5
4	305.48	34.2 QP	46.0	-11.8	1.00 V	199	46.0	-11.8
5	699.30	34.1 QP	46.0	-11.9	2.00 V	35	37.4	-3.3
6	824.43	32.5 QP	46.0	-13.5	1.50 V	251	33.4	-0.9

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.



7.8 Unwanted Emissions above 1 GHz

Mode A

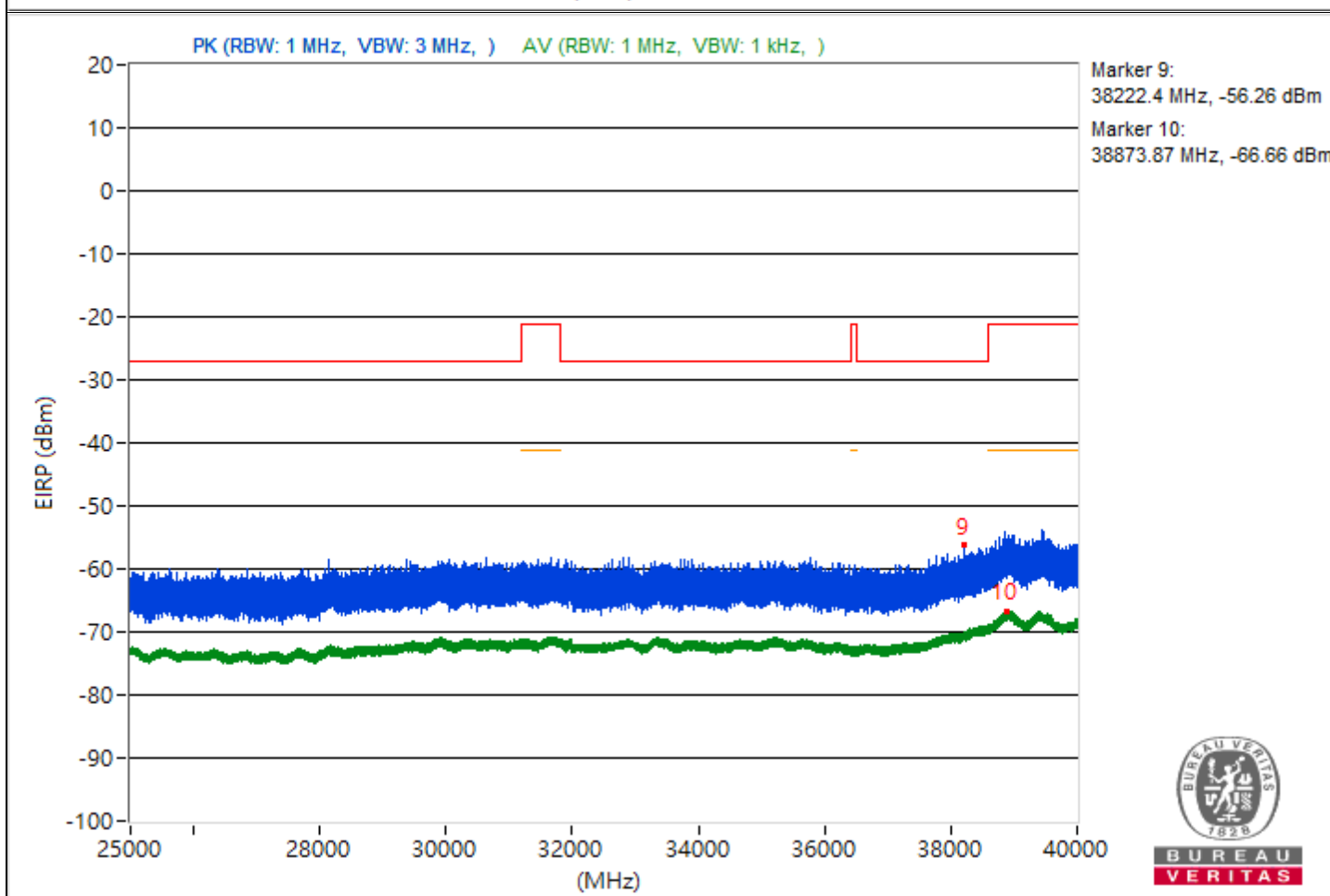
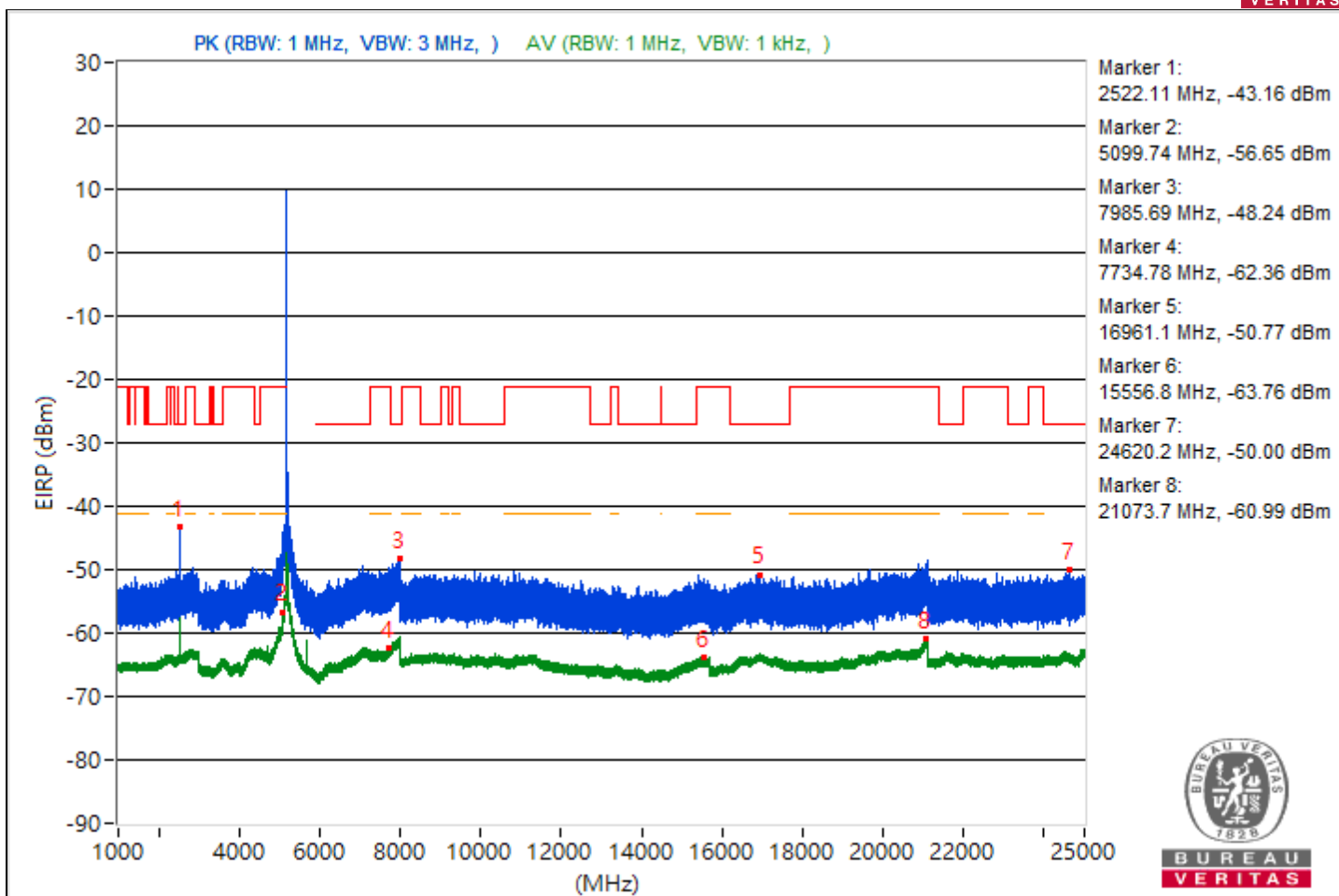
Conducted Unwanted Emissions

RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex 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	#2522.11	52.1 PK	68.26	-16.16	-47.75	4.59	-43.16
2	5099.74	38.61 AV	54	-15.39	-61.24	4.59	-56.65
3	#7985.69	47.02 PK	68.26	-21.24	-52.83	4.59	-48.24
4	7734.78	32.9 AV	54	-21.1	-66.95	4.59	-62.36
5	#16961.1	44.49 PK	68.26	-23.77	-55.36	4.59	-50.77
6	15556.8	31.5 AV	54	-22.5	-68.35	4.59	-63.76
7	#24620.2	45.26 PK	68.26	-23	-54.59	4.59	-50
8	21073.7	34.27 AV	54	-19.73	-65.58	4.59	-60.99
9	#38222.4	39 PK	68.26	-29.26	-60.85	4.59	-56.26
10	38873.87	28.6 AV	54	-25.4	-71.25	4.59	-66.66

Notes:

1. Margin value = Emission Level - Limit value
2. "#": The radiated frequency is out of the restricted band.

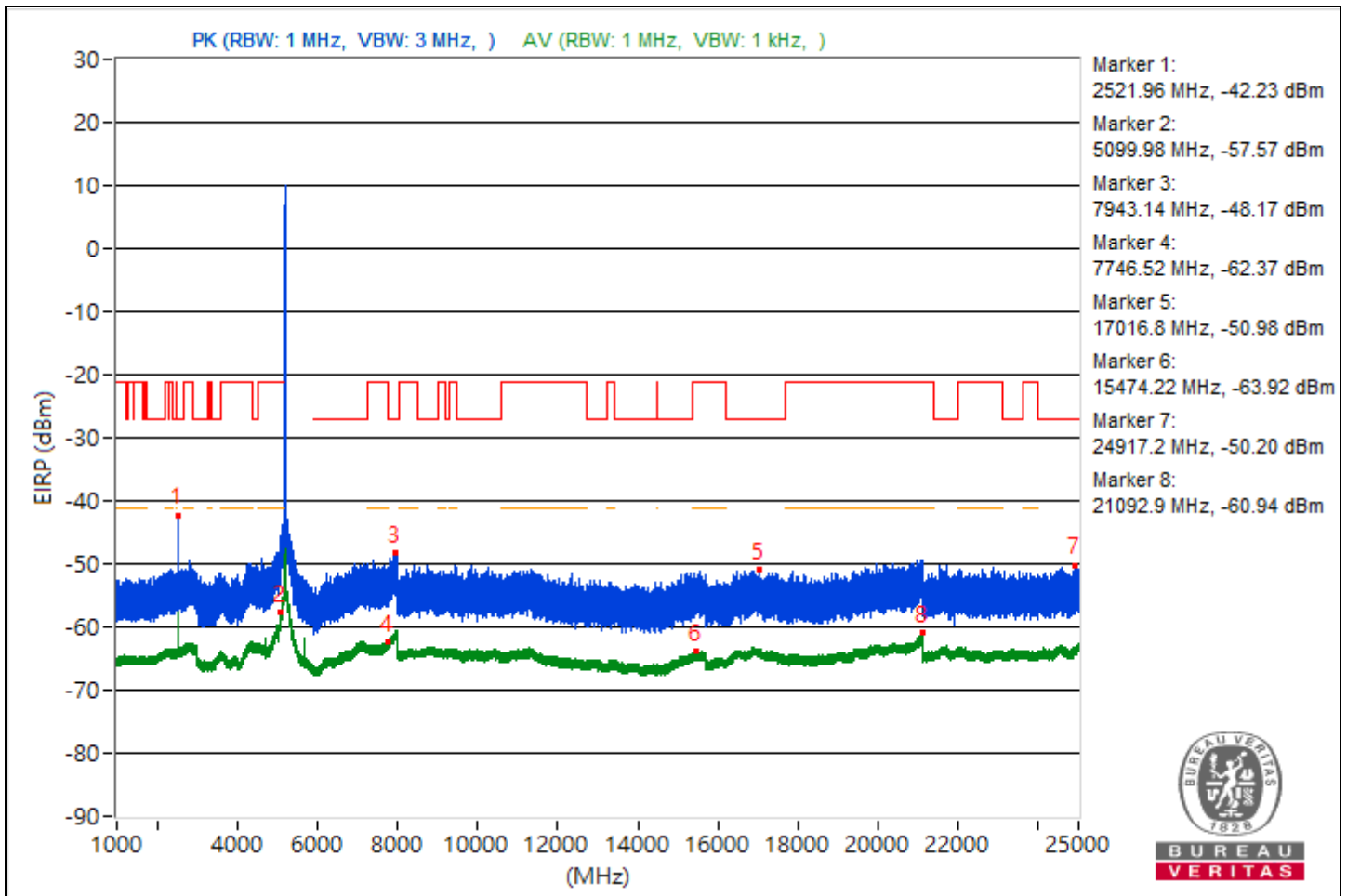


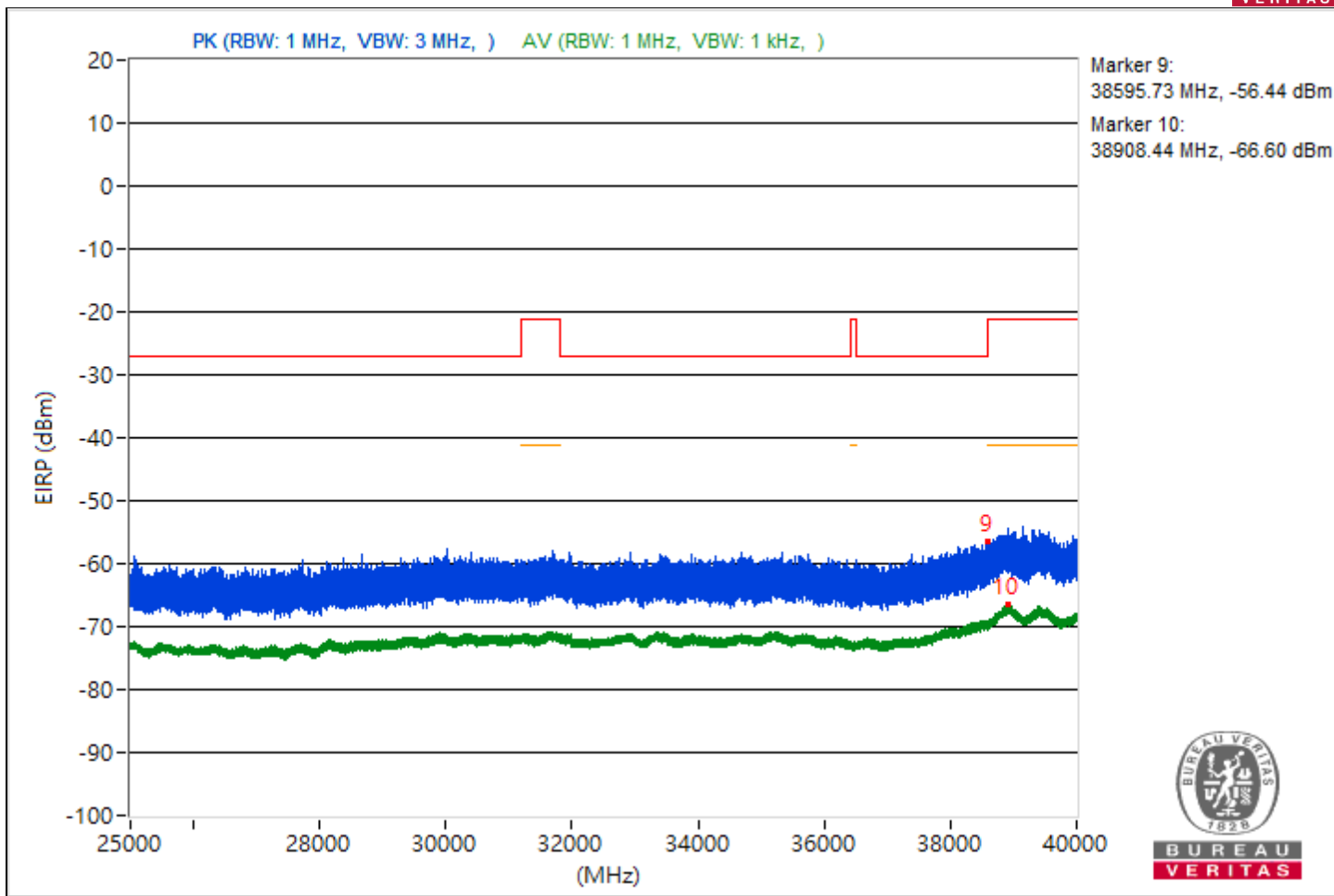
RF Mode	802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	#2521.96	53.03 PK	68.26	-15.23	-46.82	4.59	-42.23
2	5099.98	37.69 AV	54	-16.31	-62.16	4.59	-57.57
3	#7943.14	47.09 PK	68.26	-21.17	-52.76	4.59	-48.17
4	7746.52	32.89 AV	54	-21.11	-66.96	4.59	-62.37
5	#17016.8	44.28 PK	68.26	-23.98	-55.57	4.59	-50.98
6	15474.22	31.34 AV	54	-22.66	-68.51	4.59	-63.92
7	#24917.2	45.06 PK	68.26	-23.2	-54.79	4.59	-50.2
8	21092.9	34.32 AV	54	-19.68	-65.53	4.59	-60.94
9	#38595.73	38.82 PK	68.26	-29.44	-61.03	4.59	-56.44
10	38908.44	28.66 AV	54	-25.34	-71.19	4.59	-66.6

Notes:

1. Margin value = Emission Level - Limit value
2. " # ": The radiated frequency is out of the restricted band.



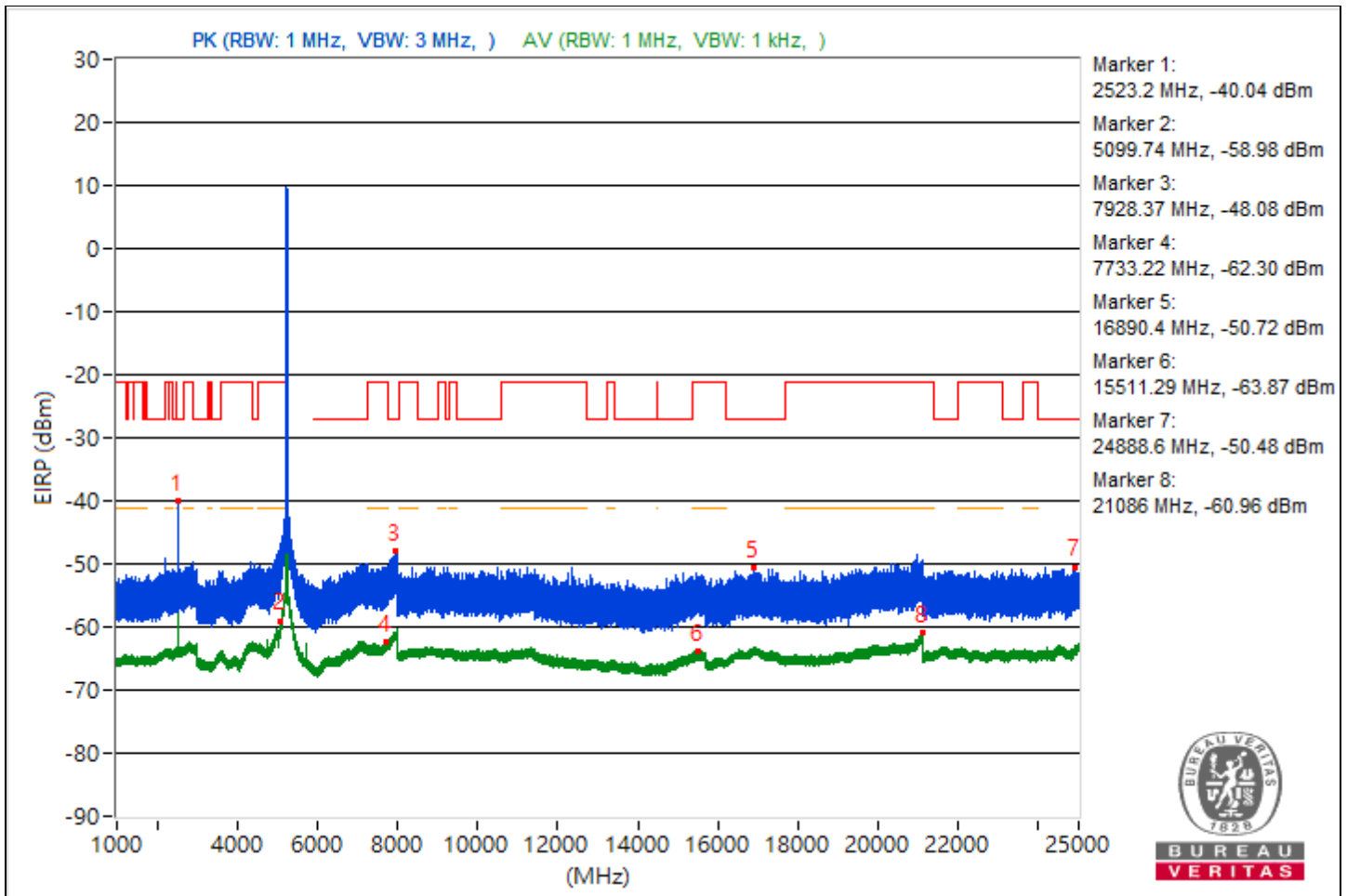


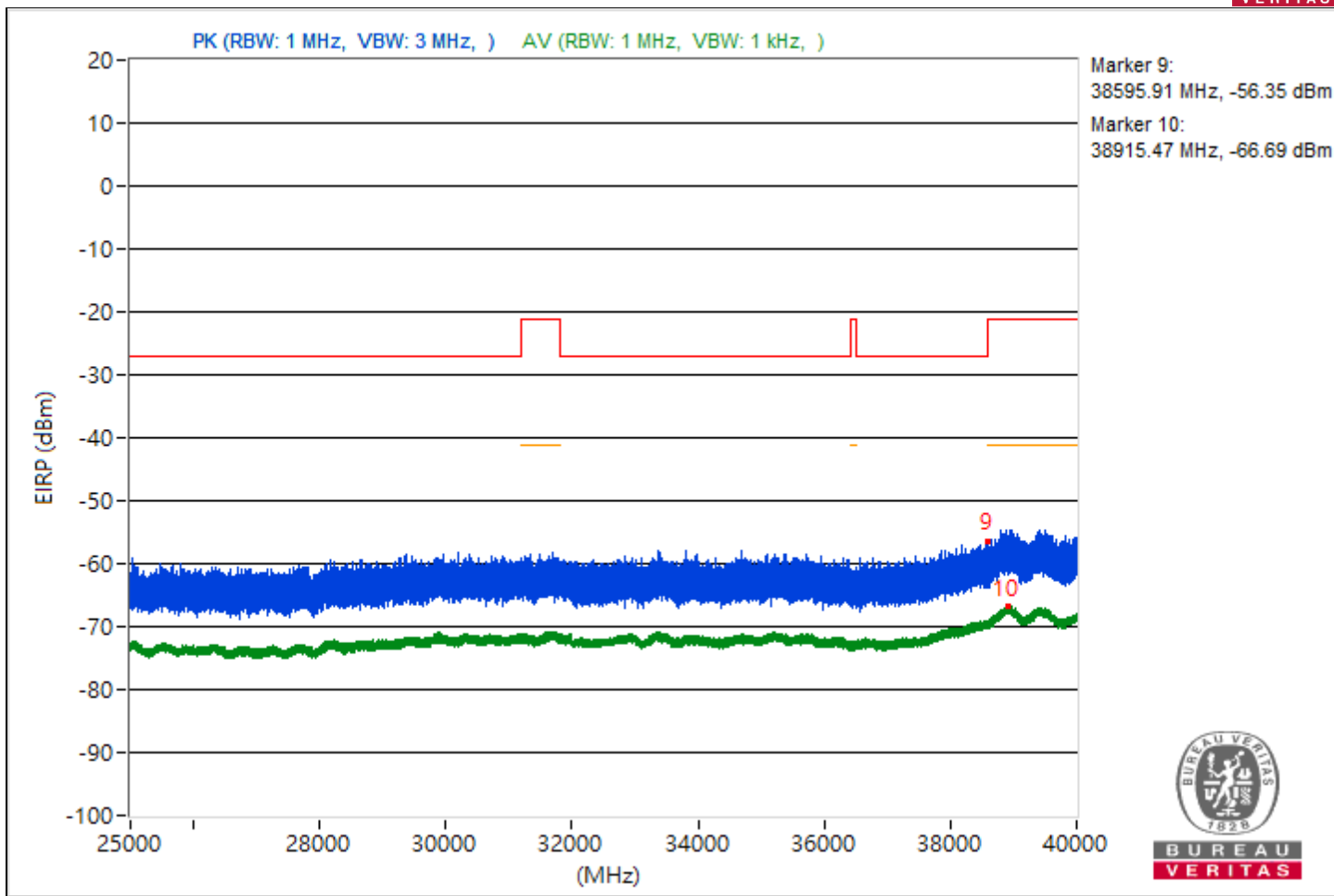
RF Mode	802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	#2523.2	55.22 PK	68.26	-13.04	-44.63	4.59	-40.04
2	5099.74	36.28 AV	54	-17.72	-63.57	4.59	-58.98
3	#7928.37	47.18 PK	68.26	-21.08	-52.67	4.59	-48.08
4	7733.22	32.96 AV	54	-21.04	-66.89	4.59	-62.3
5	#16890.4	44.54 PK	68.26	-23.72	-55.31	4.59	-50.72
6	15511.29	31.39 AV	54	-22.61	-68.46	4.59	-63.87
7	#24888.6	44.78 PK	68.26	-23.48	-55.07	4.59	-50.48
8	21086	34.3 AV	54	-19.7	-65.55	4.59	-60.96
9	#38595.91	38.91 PK	68.26	-29.35	-60.94	4.59	-56.35
10	38915.47	28.57 AV	54	-25.43	-71.28	4.59	-66.69

Notes:

- Margin value = Emission Level - Limit value
- "#": The radiated frequency is out of the restricted band.



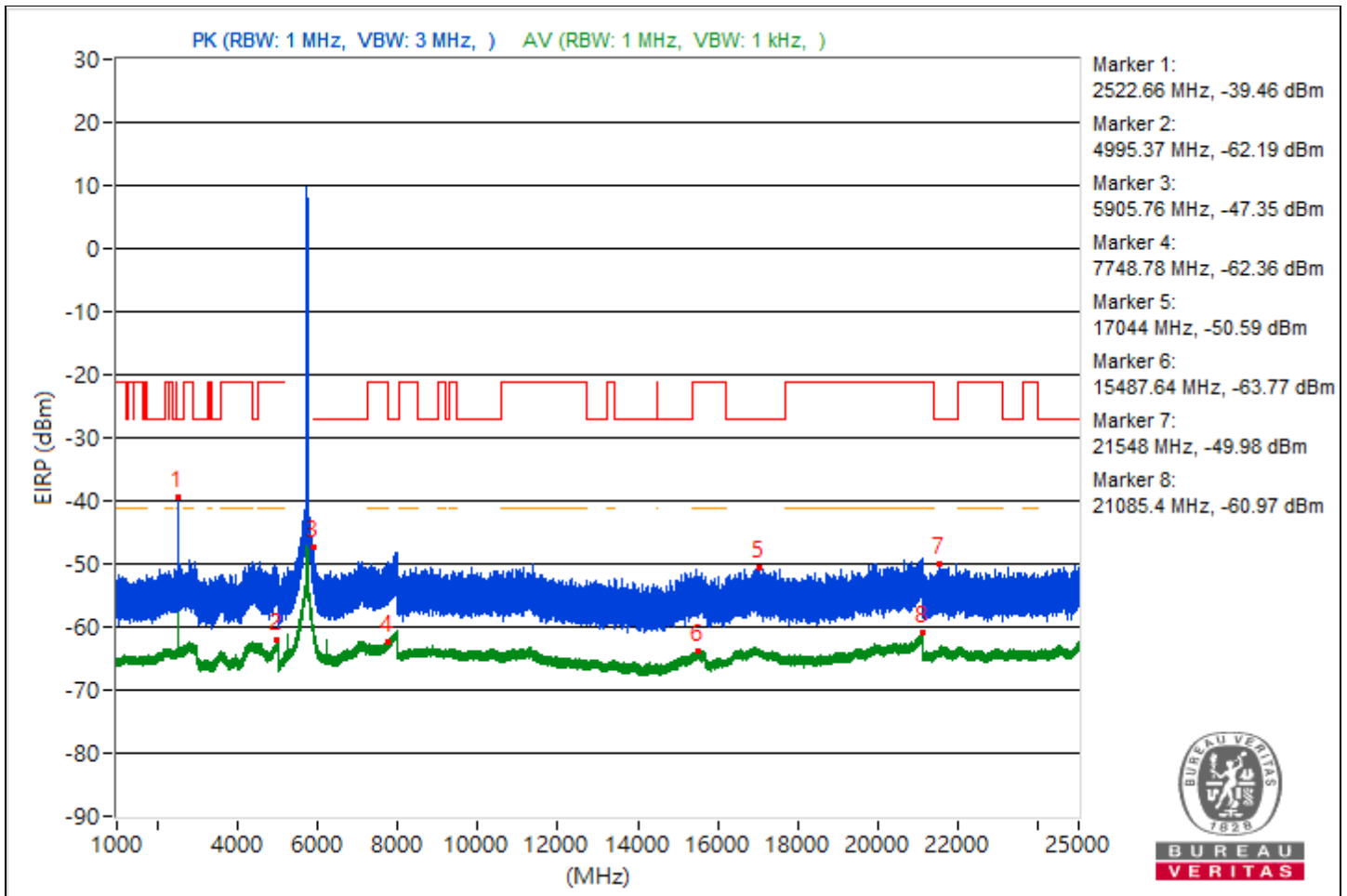


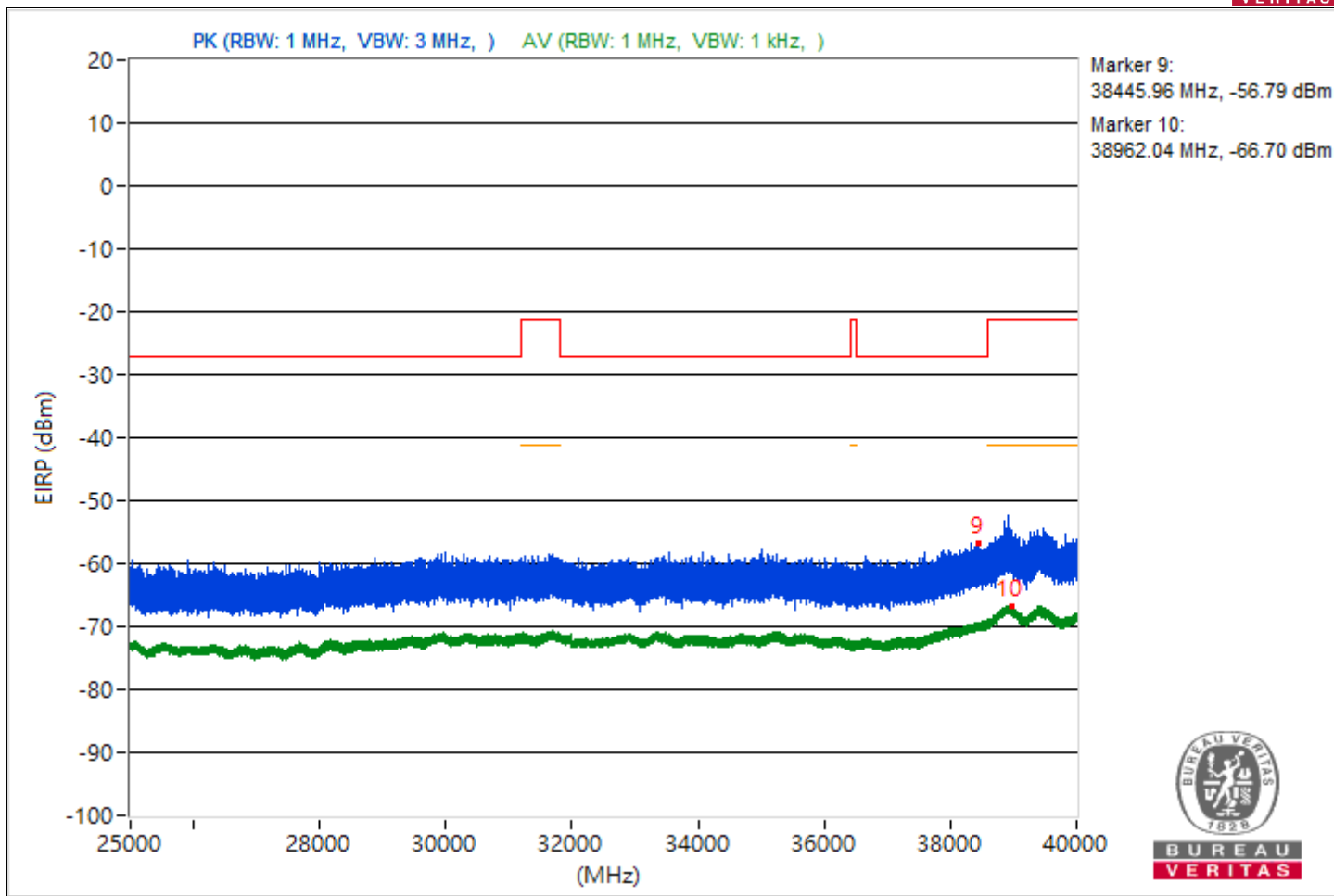
RF Mode	802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	#2522.66	55.8 PK	68.26	-12.46	-44.05	4.59	-39.46
2	4995.37	33.07 AV	54	-20.93	-66.78	4.59	-62.19
3	#5905.76	47.91 PK	68.26	-20.35	-51.94	4.59	-47.35
4	7748.78	32.9 AV	54	-21.1	-66.95	4.59	-62.36
5	#17044	44.67 PK	68.26	-23.59	-55.18	4.59	-50.59
6	15487.64	31.49 AV	54	-22.51	-68.36	4.59	-63.77
7	#21548	45.28 PK	68.26	-22.98	-54.57	4.59	-49.98
8	21085.4	34.29 AV	54	-19.71	-65.56	4.59	-60.97
9	#38445.96	38.47 PK	68.26	-29.79	-61.38	4.59	-56.79
10	38962.04	28.56 AV	54	-25.44	-71.29	4.59	-66.7

Notes:

1. Margin value = Emission Level - Limit value
2. " # ": The radiated frequency is out of the restricted band.



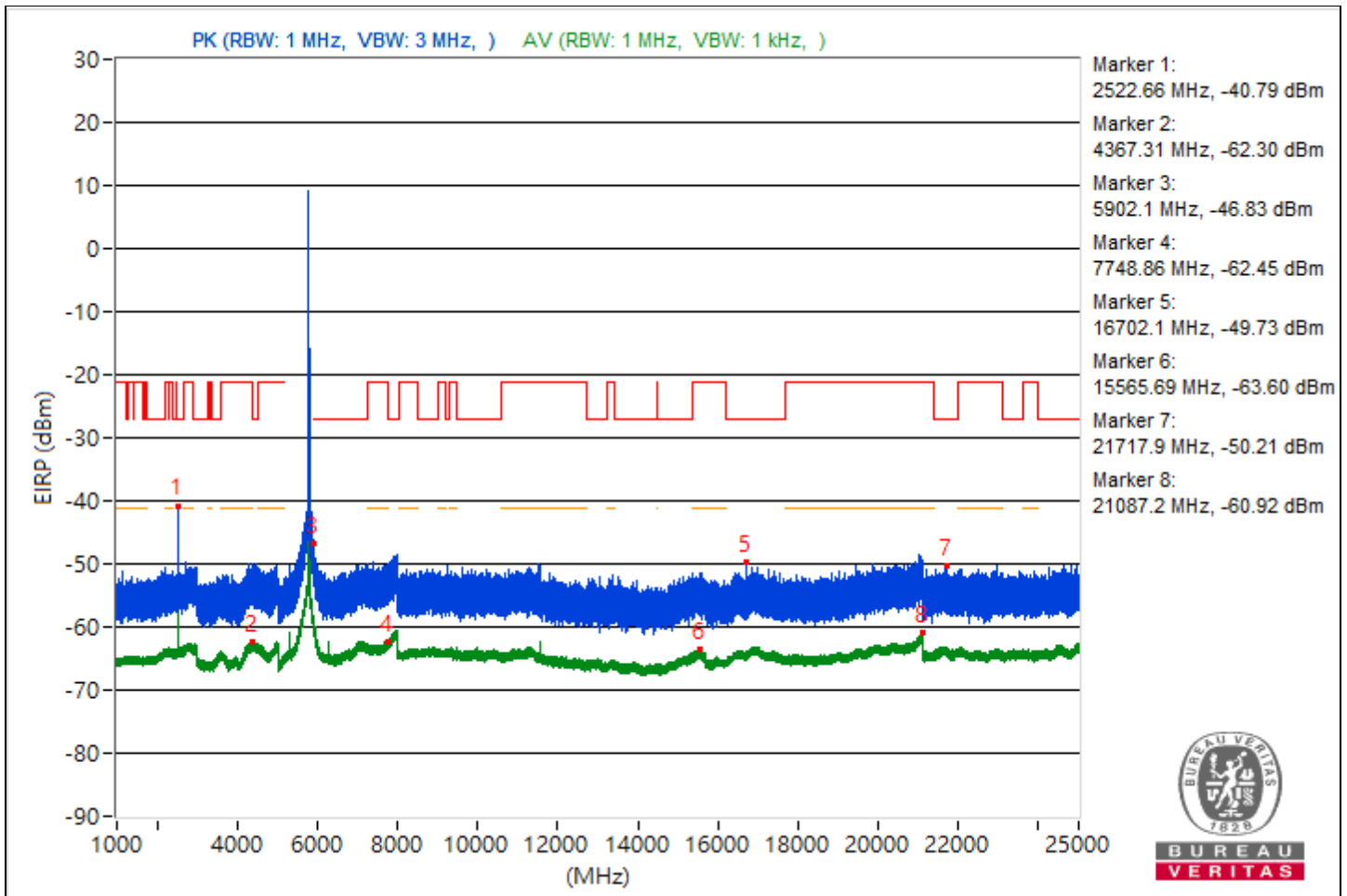


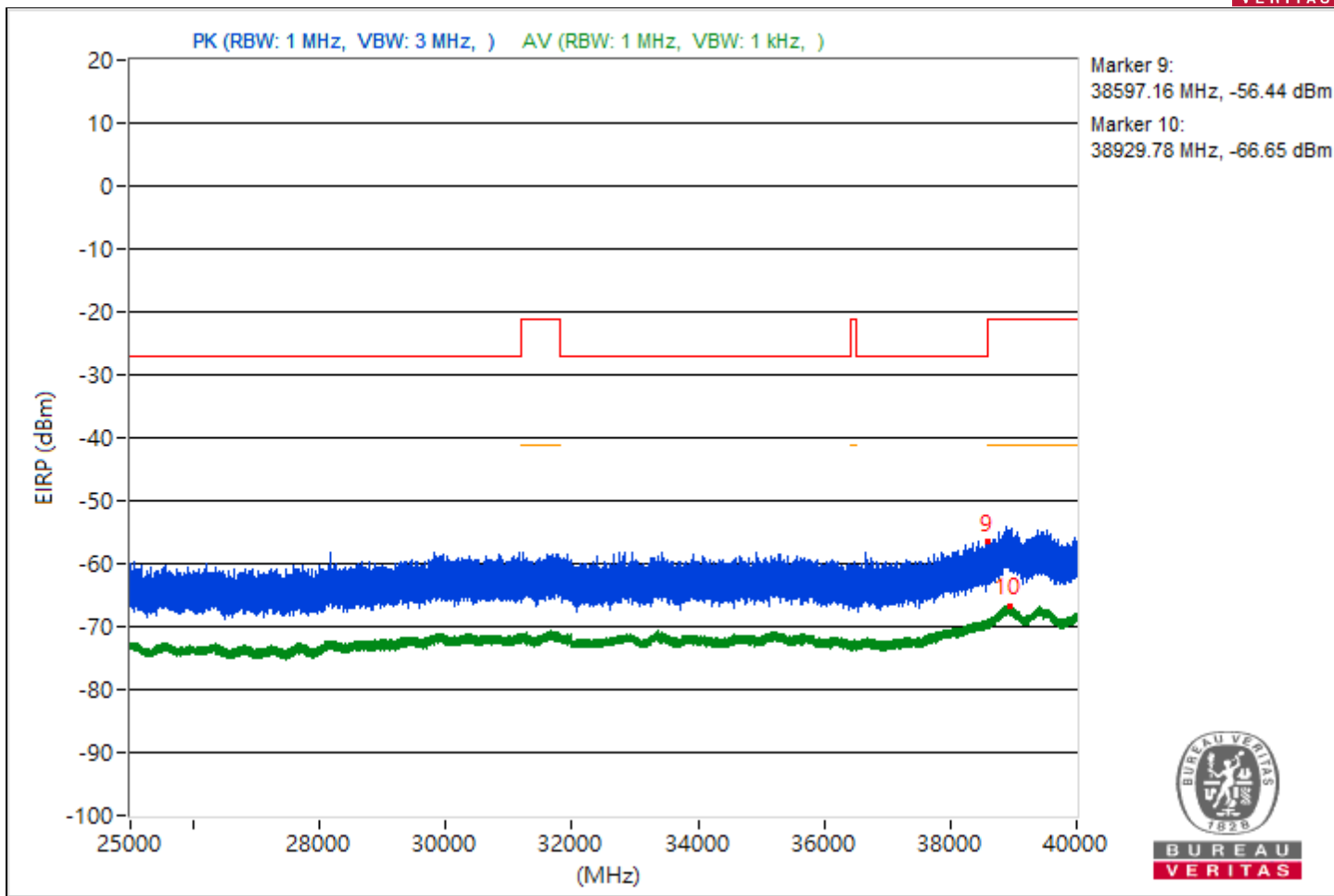
RF Mode	802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	#2522.66	54.47 PK	68.26	-13.79	-45.38	4.59	-40.79
2	4367.31	32.96 AV	54	-21.04	-66.89	4.59	-62.3
3	#5902.1	48.43 PK	68.26	-19.83	-51.42	4.59	-46.83
4	7748.86	32.81 AV	54	-21.19	-67.04	4.59	-62.45
5	#16702.1	45.53 PK	68.26	-22.73	-54.32	4.59	-49.73
6	15565.69	31.66 AV	54	-22.34	-68.19	4.59	-63.6
7	#21717.9	45.05 PK	68.26	-23.21	-54.8	4.59	-50.21
8	21087.2	34.34 AV	54	-19.66	-65.51	4.59	-60.92
9	#38597.16	38.82 PK	68.26	-29.44	-61.03	4.59	-56.44
10	38929.78	28.61 AV	54	-25.39	-71.24	4.59	-66.65

Notes:

1. Margin value = Emission Level - Limit value
2. " # ": The radiated frequency is out of the restricted band.



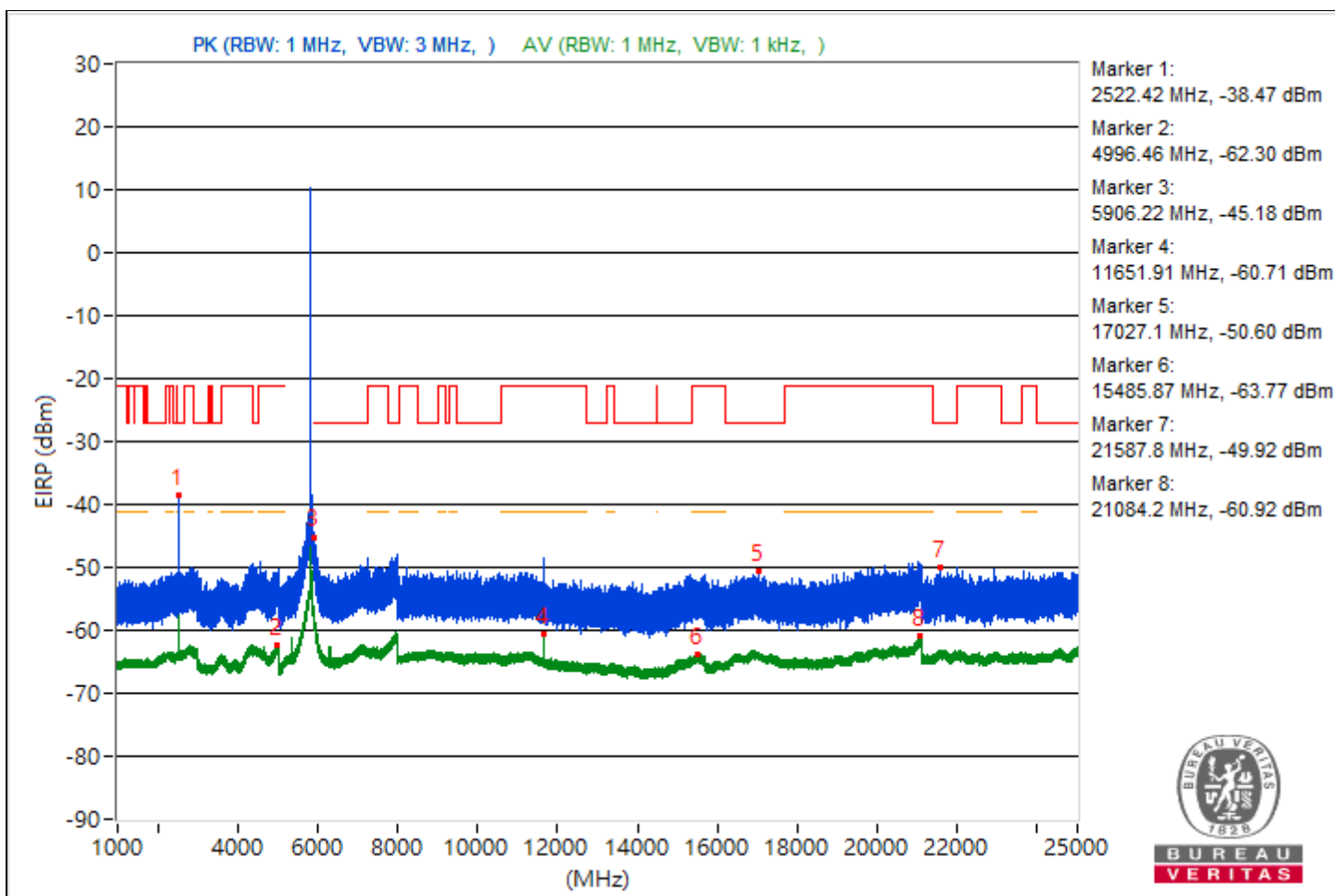


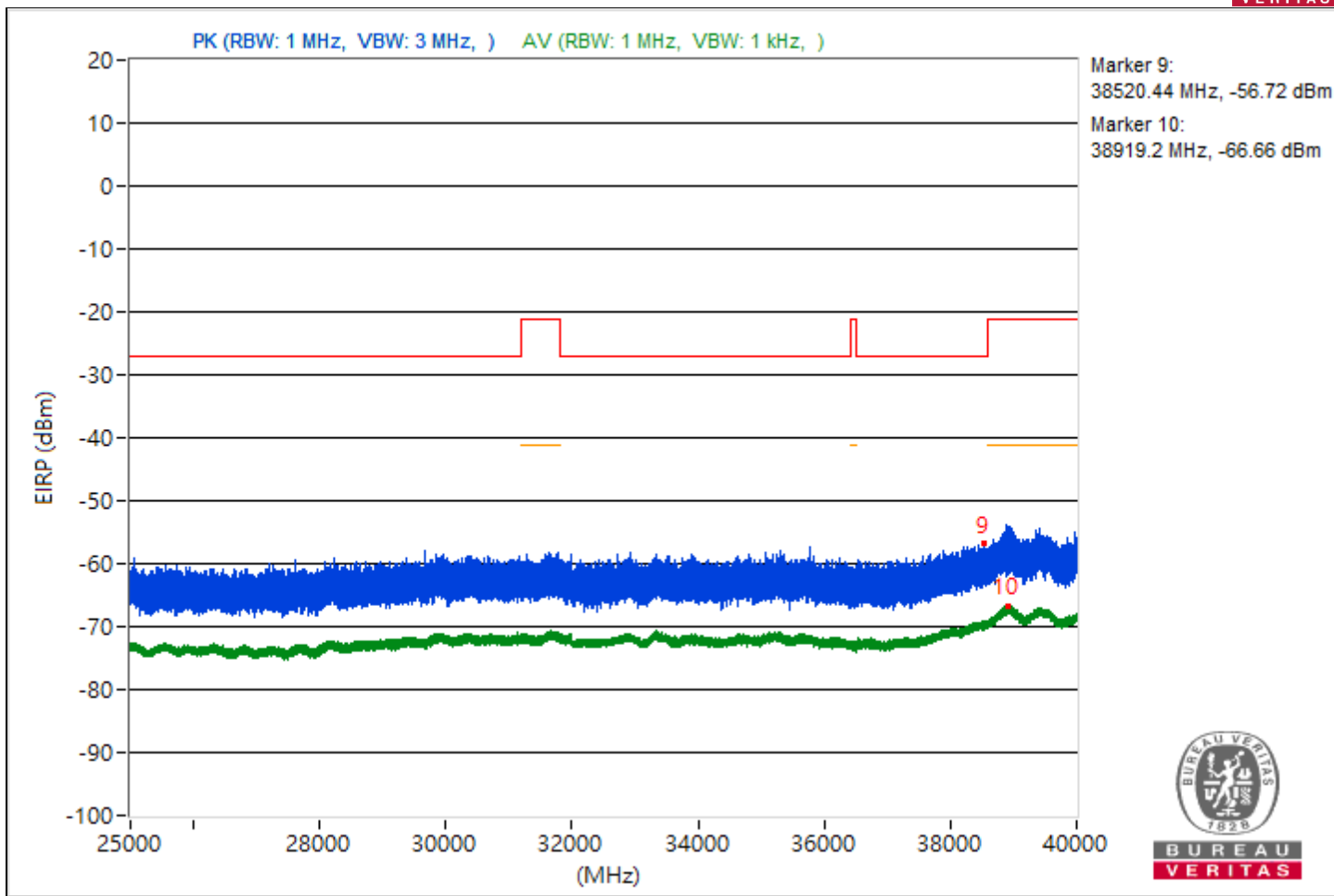
RF Mode	802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	#2522.42	56.79 PK	68.26	-11.47	-43.06	4.59	-38.47
2	4996.46	32.96 AV	54	-21.04	-66.89	4.59	-62.3
3	#5906.22	50.08 PK	68.26	-18.18	-49.77	4.59	-45.18
4	11651.91	34.55 AV	54	-19.45	-65.3	4.59	-60.71
5	#17027.1	44.66 PK	68.26	-23.6	-55.19	4.59	-50.6
6	15485.87	31.49 AV	54	-22.51	-68.36	4.59	-63.77
7	#21587.8	45.34 PK	68.26	-22.92	-54.51	4.59	-49.92
8	21084.2	34.34 AV	54	-19.66	-65.51	4.59	-60.92
9	#38520.44	38.54 PK	68.26	-29.72	-61.31	4.59	-56.72
10	38919.2	28.6 AV	54	-25.4	-71.25	4.59	-66.66

Notes:

1. Margin value = Emission Level - Limit value
2. " # ": The radiated frequency is out of the restricted band.





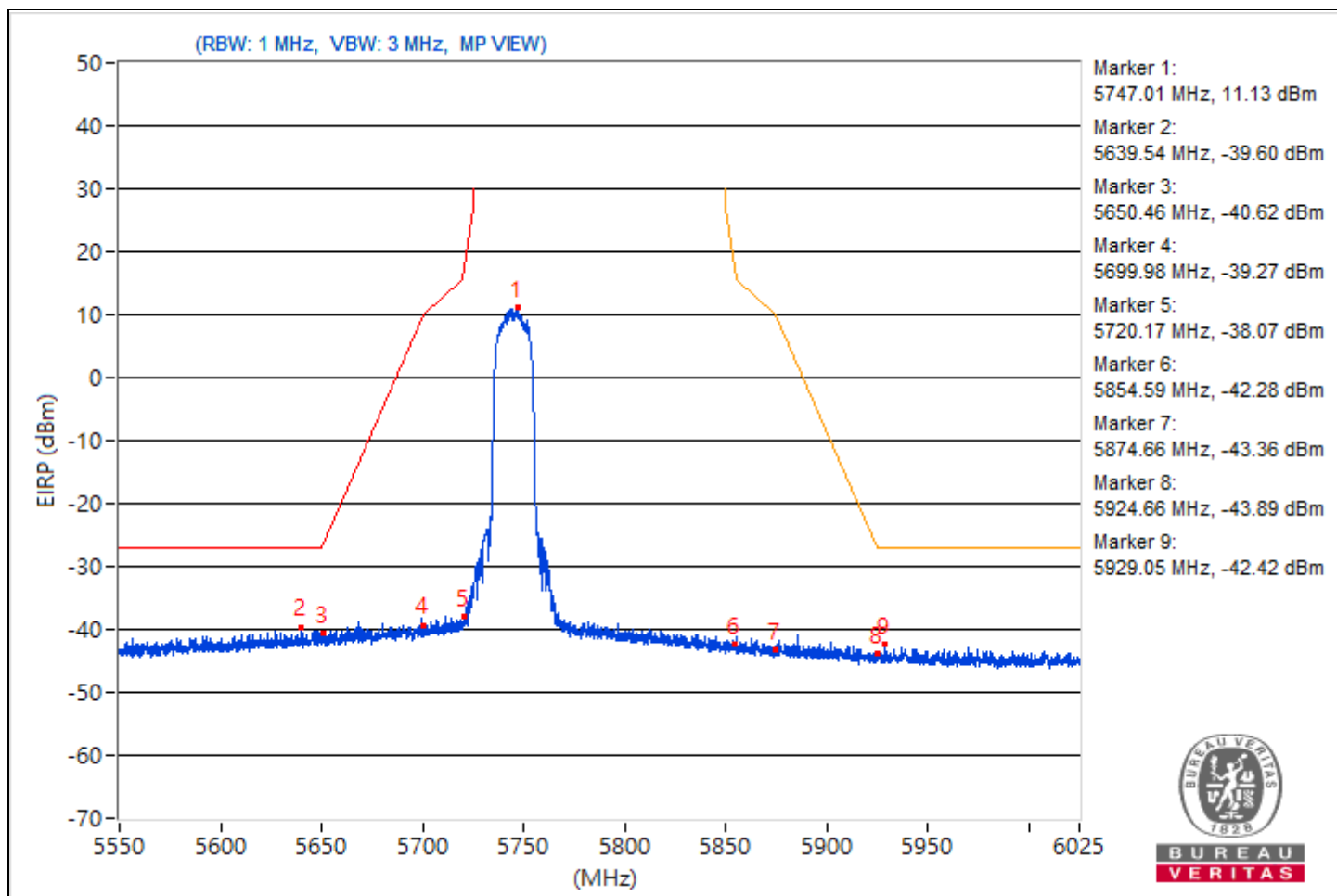
Conducted Band Edges

RF Mode	802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	5.55 GHz ~ 6.025 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex 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	*5747.01	106.39			6.54	4.59	11.13
2	#5639.54	55.66	68.26	-12.6	-44.19	4.59	-39.6
3	#5650.46	54.64	68.6	-13.96	-45.21	4.59	-40.62
4	#5699.98	55.99	105.25	-49.26	-43.86	4.59	-39.27
5	#5720.17	57.19	111.24	-54.05	-42.66	4.59	-38.07
6	#5854.59	52.98	111.79	-58.81	-46.87	4.59	-42.28
7	#5874.66	51.9	105.35	-53.45	-47.95	4.59	-43.36
8	#5924.66	51.37	68.51	-17.14	-48.48	4.59	-43.89
9	#5929.05	52.84	68.26	-15.42	-47.01	4.59	-42.42

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
3. " # ": The radiated frequency is out of the restricted band.

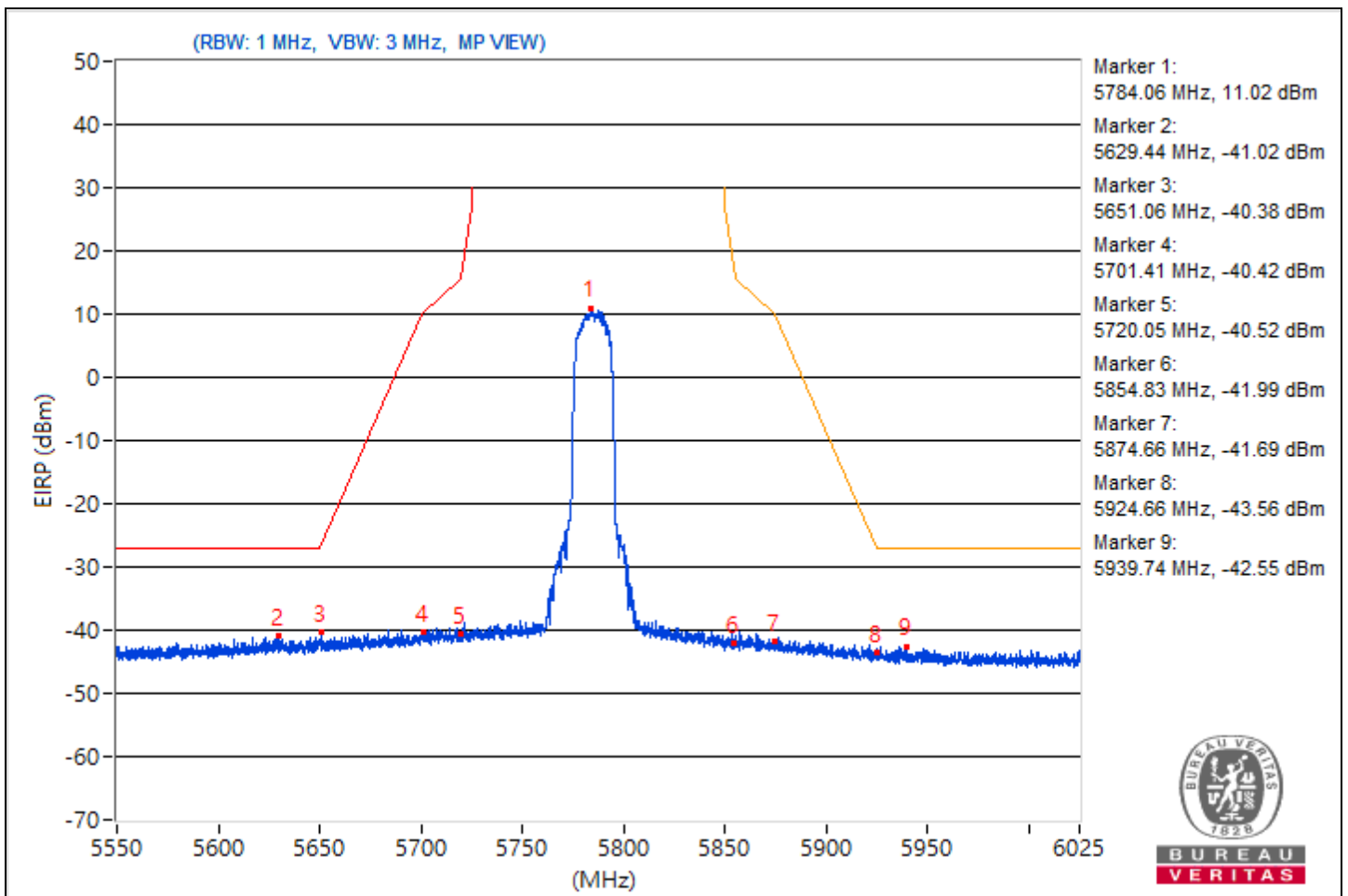


RF Mode	802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	5.55 GHz ~ 6.025 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	*5784.06	106.28			6.43	4.59	11.02
2	#5629.44	54.24	68.26	-14.02	-45.61	4.59	-41.02
3	#5651.06	54.88	69.04	-14.16	-44.97	4.59	-40.38
4	#5701.41	54.84	105.65	-50.81	-45.01	4.59	-40.42
5	#5720.05	54.74	110.97	-56.23	-45.11	4.59	-40.52
6	#5854.83	53.27	111.24	-57.97	-46.58	4.59	-41.99
7	#5874.66	53.57	105.35	-51.78	-46.28	4.59	-41.69
8	#5924.66	51.7	68.51	-16.81	-48.15	4.59	-43.56
9	#5939.74	52.71	68.26	-15.55	-47.14	4.59	-42.55

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
3. " # ": The radiated frequency is out of the restricted band.

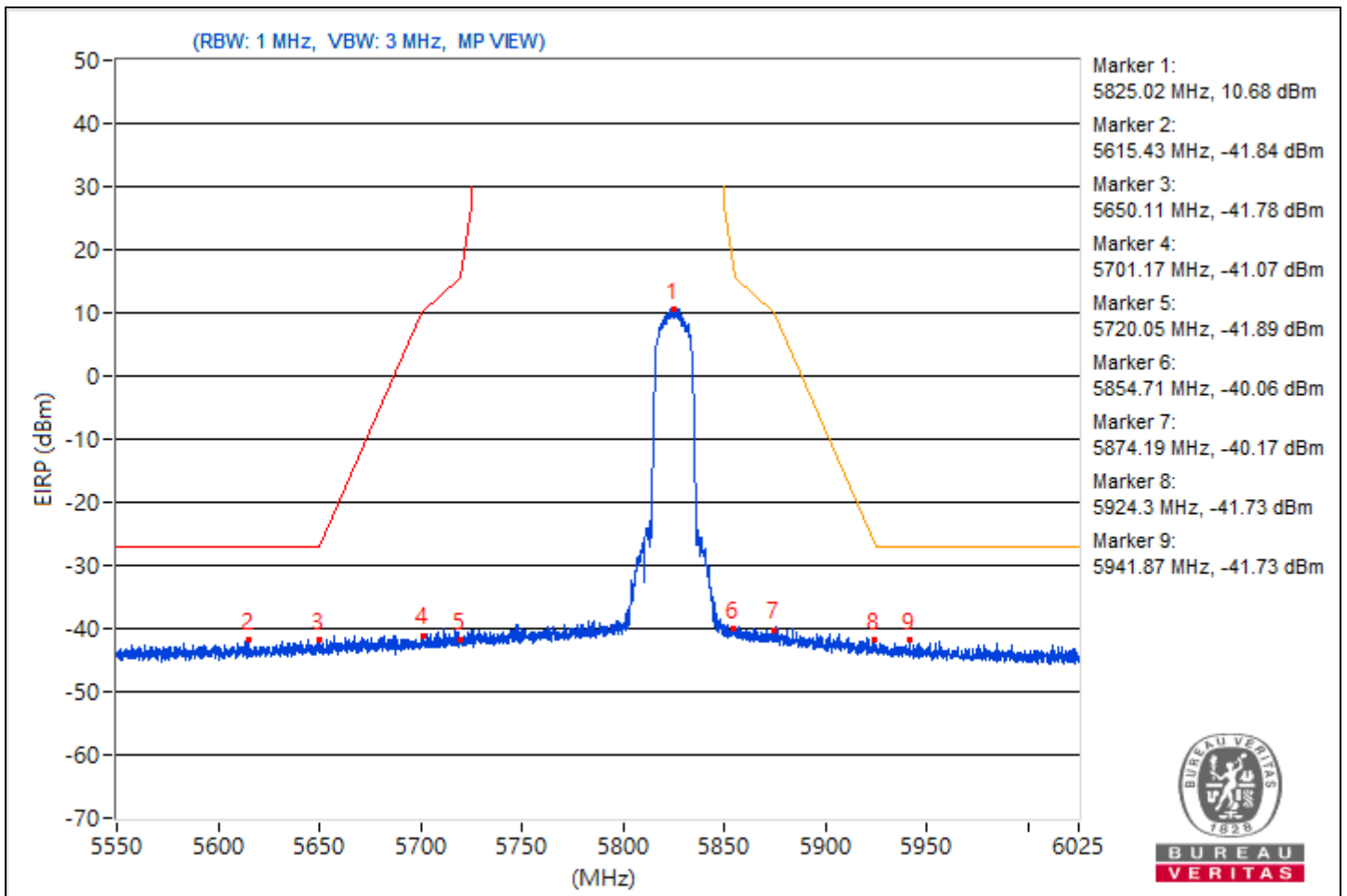


RF Mode	802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	5.55 GHz ~ 6.025 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	*5825.02	105.94			6.09	4.59	10.68
2	#5615.43	53.42	68.26	-14.84	-46.43	4.59	-41.84
3	#5650.11	53.48	68.34	-14.86	-46.37	4.59	-41.78
4	#5701.17	54.19	105.59	-51.4	-45.66	4.59	-41.07
5	#5720.05	53.37	110.97	-57.6	-46.48	4.59	-41.89
6	#5854.71	55.2	111.52	-56.32	-44.65	4.59	-40.06
7	#5874.19	55.09	105.49	-50.4	-44.76	4.59	-40.17
8	#5924.3	53.53	68.78	-15.25	-46.32	4.59	-41.73
9	#5941.87	53.53	68.26	-14.73	-46.32	4.59	-41.73

Notes:

1. Margin value = Emission Level - Limit value
2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
3. " # ": The radiated frequency is out of the restricted band.

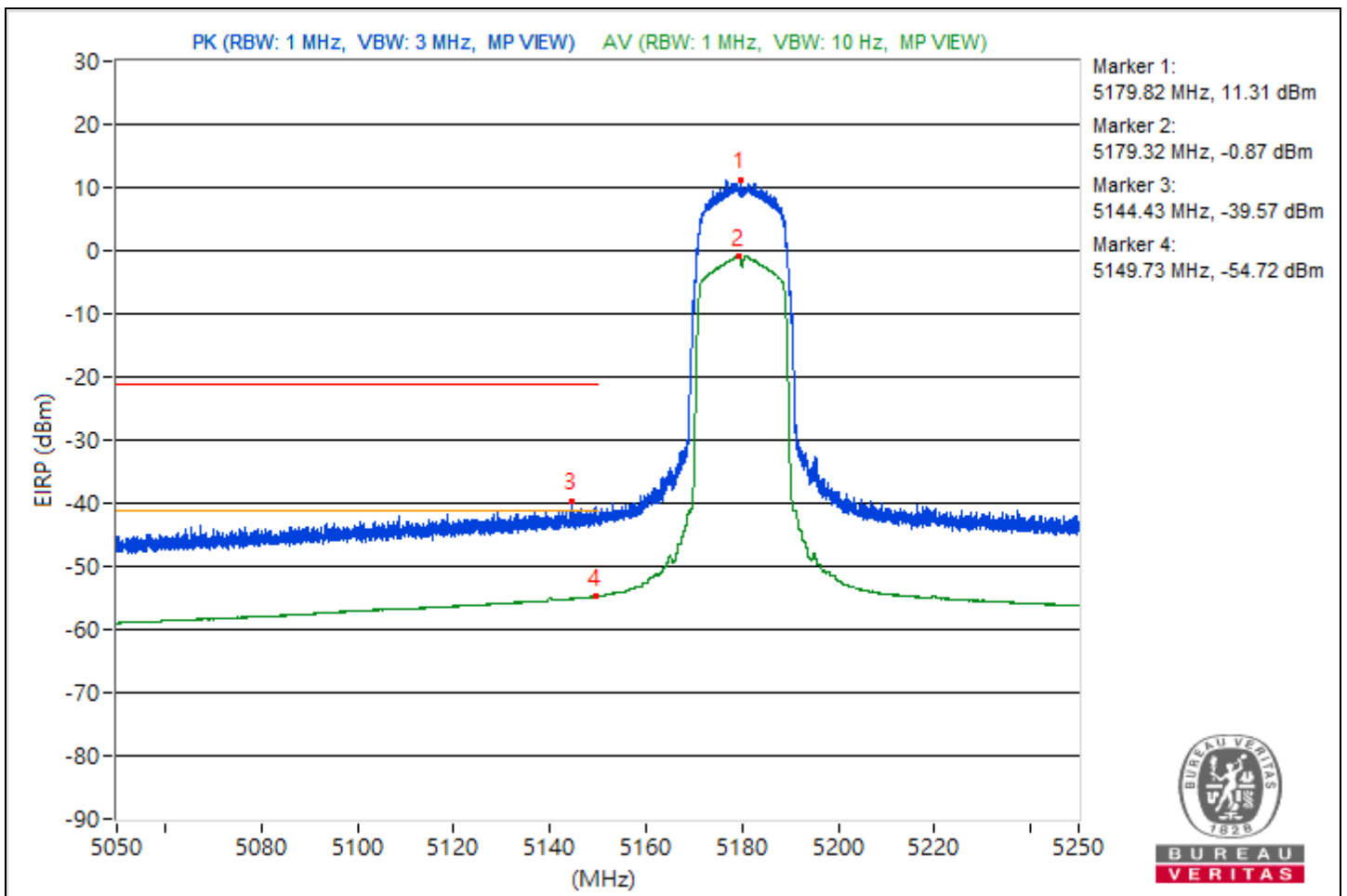


RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	5.05 GHz ~ 5.25 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	*5179.82	106.57 PK			7.21	4.1	11.31
2	*5179.32	94.39 AV			-4.97	4.1	-0.87
3	5144.43	55.69 PK	74	-18.31	-43.67	4.1	-39.57
4	5149.73	40.54 AV	54	-13.46	-58.82	4.1	-54.72

Notes:

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

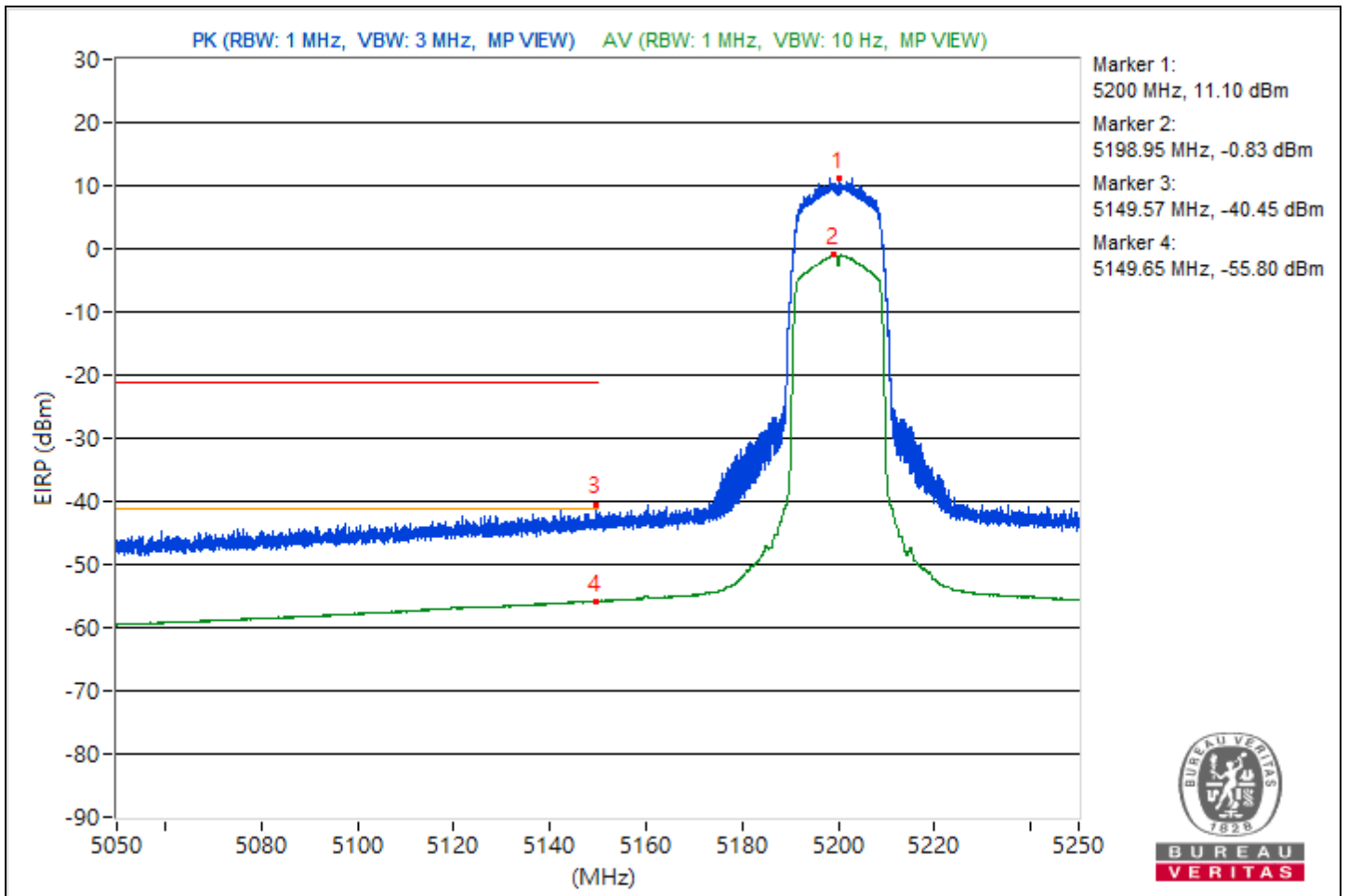


RF Mode	802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	5.05 GHz ~ 5.25 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	*5200	106.36 PK			7	4.1	11.1
2	*5198.95	94.43 AV			-4.93	4.1	-0.83
3	5149.57	54.81 PK	74	-19.19	-44.55	4.1	-40.45
4	5149.65	39.46 AV	54	-14.54	-59.9	4.1	-55.8

Notes:

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

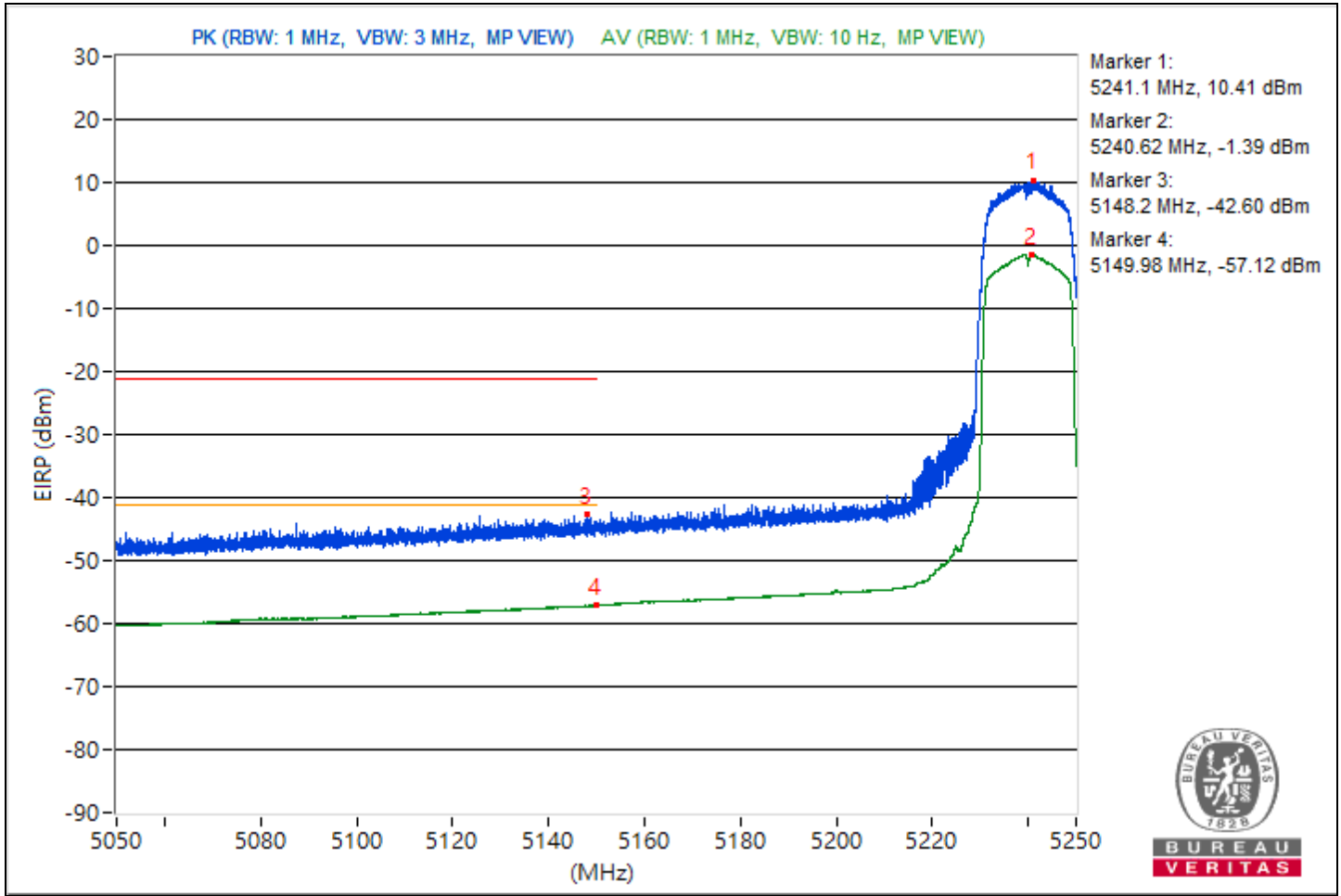


RF Mode	802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	5.05 GHz ~ 5.25 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex Wang

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	*5241.1	105.67 PK			6.31	4.1	10.41
2	*5240.62	93.87 AV			-5.49	4.1	-1.39
3	5148.2	52.66 PK	74	-21.34	-46.7	4.1	-42.6
4	5149.98	38.14 AV	54	-15.86	-61.22	4.1	-57.12

Notes:

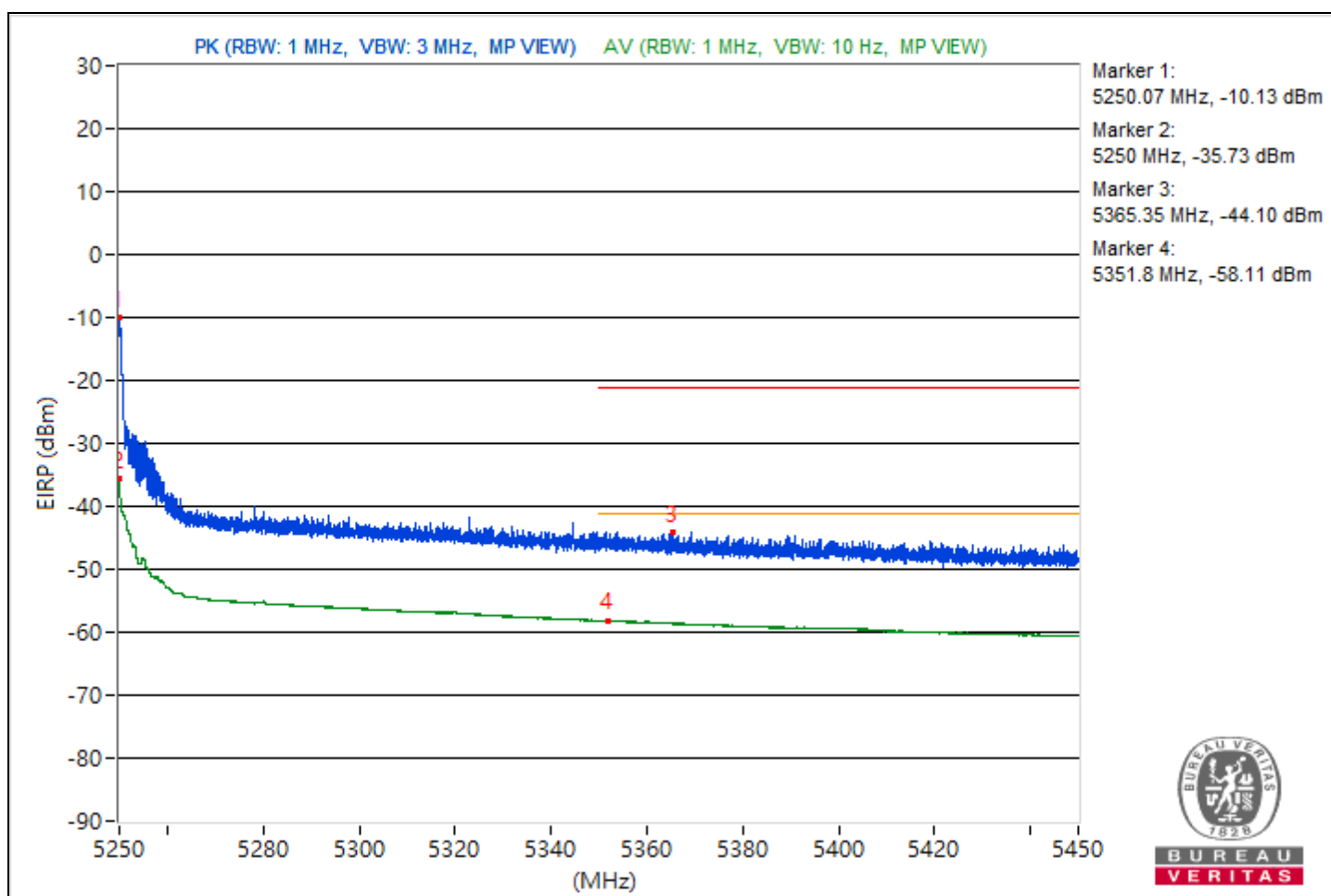
1. Margin value = Emission Level - Limit value
2. " * " : Fundamental frequency, the limit was restricted at the RF Output Power.



RF Mode	802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	5.25 GHz ~ 5.45 GHz	Input Power	3.3 Vdc
Environmental Conditions	22°C, 70% RH	Tested By	Rex 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	#5250.07	85.13 PK			-14.23	4.1	-10.13
2	#5250	59.53 AV			-39.83	4.1	-35.73
3	5365.35	51.16 PK	74	-22.84	-48.2	4.1	-44.1
4	5351.8	37.15 AV	54	-16.85	-62.21	4.1	-58.11

- Notes:
- Margin value = Emission Level - Limit value
 - " # ": The radiated frequency is out of the restricted band, the limit was restricted at the Conducted Out of Band Emissions.



Mode B

RF Mode	802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 73% RH
Tested By	Vincent Chen		

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	#10360.00	59.7 PK	68.2	-8.5	2.32 H	174	47.6	12.1

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	#10360.00	61.0 PK	68.2	-7.2	1.32 V	187	48.9	12.1

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.
5. " # ": The radiated frequency is out of the restricted band.



RF Mode	802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 73% RH
Tested By	Vincent Chen		

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	#10400.00	59.4 PK	68.2	-8.8	3.41 H	128	47.4	12.0

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	#10400.00	60.7 PK	68.2	-7.5	1.56 V	204	48.7	12.0

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.
5. "#": The radiated frequency is out of the restricted band.



RF Mode	802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 73% RH
Tested By	Vincent Chen		

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	#10480.00	59.6 PK	68.2	-8.6	1.93 H	78	47.3	12.3

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	#10480.00	60.7 PK	68.2	-7.5	2.37 V	165	48.4	12.3

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.
5. "#": The radiated frequency is out of the restricted band.



RF Mode	802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 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	24°C, 73% RH
Tested By	Vincent Chen		

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	11490.00	59.0 PK	74.0	-15.0	2.97 H	111	47.3	11.7
2	11490.00	47.4 AV	54.0	-6.6	2.97 H	111	35.7	11.7
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	11490.00	60.2 PK	74.0	-13.8	1.28 V	207	48.5	11.7
2	11490.00	48.3 AV	54.0	-5.7	1.28 V	207	36.6	11.7

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	802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 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	24°C, 73% RH
Tested By	Vincent Chen		

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	11570.00	58.9 PK	74.0	-15.1	2.26 H	188	47.3	11.6
2	11570.00	46.8 AV	54.0	-7.2	2.26 H	188	35.2	11.6
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	11570.00	60.0 PK	74.0	-14.0	1.38 V	226	48.4	11.6
2	11570.00	48.2 AV	54.0	-5.8	1.38 V	226	36.6	11.6

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	802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 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	24°C, 73% RH
Tested By	Vincent Chen		

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	11650.00	58.7 PK	74.0	-15.3	2.86 H	205	47.4	11.3
2	11650.00	48.7 AV	54.0	-5.3	2.86 H	205	37.4	11.3
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	11650.00	60.2 PK	74.0	-13.8	1.74 V	183	48.9	11.3
2	11650.00	48.0 AV	54.0	-6.0	1.74 V	183	36.7	11.3

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.

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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