

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: Certification Ordinance Article 2-1-19
Report No.: RJBEIU-WTW-P25030790-2
Product: AMT6856B2M Wi-Fi Tri-band 2X2 11ax + Bluetooth 5.3 Combo Module
Brand: AmTRAN
Model No.: AMT6856B2M
Received Date: 2025/8/27
Test Date: 2025/11/4 ~ 2025/12/17
Issued Date: 2026/1/2
Applicant: Amtran Technology Co., Ltd.
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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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Approved by: _____

Jeremy Lin

, Date: _____

2026/1/2

Jeremy Lin / Project Engineer

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Prepared by : Annie Chang / Senior Specialist



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Release Control Record

Issue No.	Description	Date Issued
RJBEIU-WTW-P25030790-2	Original release.	2026/1/2

1 Certificate

Product: AMT6856B2M Wi-Fi Tri-band 2X2 11ax + Bluetooth 5.3 Combo Module

Brand: AmTRAN

Test Model: AMT6856B2M

Sample Status: Engineering sample

Applicant: Amtran Technology Co., Ltd.

Test Date: 2025/11/4 ~ 2025/12/17

Standard: Certification Ordinance Article 2-1-19

Measurement procedure: MIC notice 88 Appendix 43

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

Certification Ordinance Article 2-1-19		
Clause	Test Item	Result
OR: Article 5 OR: Annex 1 table 7-8	Frequency Tolerance	Pass
OR: Article 6 Annex 2.30	Occupied Bandwidth	Pass
OR: Article 7. Annex 3.26	Spurious Emissions	Pass
OR: Article 49-20	Antenna Specifications	Pass
OR: Article 24.2	Spurious Emissions of Receiver	Pass
OR: Article 49-20	Housing Requirements	Pass (Refer to Note 1)
OR: Article 49-20	Antenna Power	Pass
OR: Article 49-20	Absolute Gain of Transmitting Antenna	Pass
OR: Article 49-20	Angular Width of Principal Radiation (AWPR)	N/A
OR: Article 49-20	Number of Carriers within 1 MHz Bandwidth in OFDM	Pass
OR: Article 49-20	Dwell Time (FH employed)	N/A
OR: Article 9-4.5 RE: Article 6-2.3 RE: Article 6-2.5	Interference Prevention Function	Pass
OR: Article 49-20	Carrier Sense Capability	Pass

Notes:

1. The relative information refer section 3.1 of this report.
2. OR: Ordinance Regulating Radio Equipment
3. RE: Regulations for Enforcement of the radio law
4. 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 ETSI TR 100 028-1 and ETSI TR 100 028-2:

Parameter	Uncertainty (±)
Occupied Bandwidth	960 Hz
Spurious Emissions	2.7 dB
Output Power Density	1.3 dB
Frequency Tolerance	97.75 Hz

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	AMT6856B2M Wi-Fi Tri-band 2X2 11ax + Bluetooth 5.3 Combo Module
Brand	AmTRAN
Test Model	AMT6856B2M
Test Software Version	QRCT V4.1
Status of EUT	Engineering sample
Power Supply Rating	3.9 Vdc (system)
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	Up to 573.5 Mbps
Operating Frequency	2.412 GHz ~ 2.472 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 13 802.11n (HT40), VHT40, 802.11ax (HE40): 9
Resource Unit (RU)	Single RU: 26-tone, 52-tone, 106-tone, 242-tone, 484-tone
Housing Requirements	Metal housing and the metal shielding case won't be easy to be opened.

Note:

1. There are Bluetooth and WLAN (2.4 GHz & 5 GHz & 6 GHz) technologies used for the EUT.
2. Bluetooth, WLAN 2.4 GHz & WLAN 5 GHz & WLAN 6 GHz technologies cannot transmit at same time.
3. The EUT support OFDMA and Partial RU mode, therefore partial RU combination were investigated and the worst case scenario was identified.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Output Power Description of EUT

Operation Mode	Rated Output Power Density (mW/MHz)	Maximum Conducted RF Output Power Density (mW/MHz)	Maximum Radiated RF Output Power Density (mW/MHz)
802.11b	2	1.694	6.25
802.11g	2	1.356	5.003
VHT20	2	1.26	4.649
VHT40	1	0.624	2.302
802.11ax (HE20)	2	1.178	4.347
802.11ax (HE40)	1	0.607	2.24

Operation Mode	Rated Output Power Density (mW/MHz)	Maximum Conducted RF Output Power Density (mW/MHz)	Maximum Radiated RF Output Power Density (mW/MHz)
802.11ax (HE20) 26-tone RU	3	2.516	9.283
802.11ax (HE20) 52-tone RU	3	2.515	9.28
802.11ax (HE20) 106-tone RU	3	2.221	8.195

3.3 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna No.	RF Chain No.	Frequency range (GHz)	Gain (dBi)	Antenna Type	Connector Type
2(WIFI)	0/1	2.4~2.4835	5.67	Dipole	ipex(MHF)

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

2. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	2TX	2RX
802.11g	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
VHT20	2TX	2RX
VHT40	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (RU26/52/106/242/484)	2TX	2RX

Note:

The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), VHT mode for 20 MHz (40 MHz) and 802.11ax mode for 20 MHz (40 MHz). Therefore the investigated worst case is the representative mode in test report.

3. Antenna Pattern:

Please refer to the attached file (Antenna pattern).

3.4 Channel List

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

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):

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		

3.5 Power Setting

Power Setting									
Channel	802.11b	802.11g	VHT20	Channel	VHT40	Channel	802.11ax (HE20)	Channel	802.11ax (HE40)
1	10	11.5	11.5	3	12	1	11.5	3	12
7	9.5	11.5	11.5	7	12	7	11.5	7	12
13	9.5	11.5	11.5	11	12	13	11.5	11	12

Power Setting			
Channel	802.11ax (HE20) 26-tone RU	802.11ax (HE20) 52-tone RU	802.11ax (HE20) 106-tone RU
1	5.5	8.5	11
7	5	8	10.5
13	6.5	9	11

3.6 Test Mode Applicability and Tested Channel Detail

Test Conditions	Voltage (Vdc) (System)
V_{normal}	3.9

Note: After checking the fluctuation of input voltage to the circuit of the radio part (excluding the power supply) of the equipment to be tested, the fluctuation less than $\pm 1\%$ when input voltage from an external supply into the equipment fluctuates $\pm 10\%$, therefore, the test is carried out only at the normal voltage.

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

Test Item	Test Conditions	Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
Frequency Tolerance	Chain 0	20MHz System	1, 7, 13	unmodulated	-	NA
		40MHz System	3, 7, 11	unmodulated	-	
Occupied Bandwidth	Chain 0 Chain 1	802.11b	1, 7, 13	DBPSK	1Mb/s	NA
		802.11g	1, 7, 13	BPSK	6Mb/s	NA
		VHT20	1, 7, 13	BPSK	MCS0	NA
		VHT40	3, 7, 11	BPSK	MCS0	NA
		802.11ax (HE20)	1, 7, 13	BPSK	MCS0	NA
		802.11ax (HE40)	3, 7, 11	BPSK	MCS0	NA
		802.11ax (HE20) 26-tone RU	1, 7, 13	BPSK	MCS0	0, 0, 8
		802.11ax (HE20) 52-tone RU	1, 7, 13	BPSK	MCS0	37, 37, 40
		802.11ax (HE20) 106-tone RU	1, 7, 13	BPSK	MCS0	53, 53, 54
Spurious Emissions	Chain 0 Chain 1 W	802.11b	1, 7, 13	DBPSK	1Mb/s	NA
		802.11g	1, 7, 13	BPSK	6Mb/s	NA
		VHT20	1, 7, 13	BPSK	MCS0	NA
		VHT40	3, 7, 11	BPSK	MCS0	NA
		802.11ax (HE20)	1, 7, 13	BPSK	MCS0	NA
		802.11ax (HE40)	3, 7, 11	BPSK	MCS0	NA
		802.11ax (HE20) 26-tone RU	1, 7, 13	BPSK	MCS0	0, 0, 8
		802.11ax (HE20) 52-tone RU	1, 7, 13	BPSK	MCS0	37, 37, 40
		802.11ax (HE20) 106-tone RU	1, 7, 13	BPSK	MCS0	53, 53, 54
Spurious Emissions of Receiver	Chain 0 Chain 1 S	20MHz System	1, 7, 13	-	-	NA
		40MHz System	3, 7, 11	-	-	NA

Test Item	Test Conditions	Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
Antenna Power	Chain 0 Chain 1 S	802.11b	1, 7, 13	DBPSK	1Mb/s	NA
		802.11g	1, 7, 13	BPSK	6Mb/s	NA
		VHT20	1, 7, 13	BPSK	MCS0	NA
		VHT40	3, 7, 11	BPSK	MCS0	NA
		802.11ax (HE20)	1, 7, 13	BPSK	MCS0	NA
		802.11ax (HE40)	3, 7, 11	BPSK	MCS0	NA
		802.11ax (HE20) 26-tone RU	1, 7, 13	BPSK	MCS0	0, 0, 8
		802.11ax (HE20) 52-tone RU	1, 7, 13	BPSK	MCS0	37, 37, 40
		802.11ax (HE20) 106-tone RU	1, 7, 13	BPSK	MCS0	53, 53, 54
Number of Carriers within 1 MHz Bandwidth in OFDM	Chain 0	802.11g	1, 7, 13	BPSK	6Mb/s	NA
Interference Prevention Function	-	Normal Operation				
Carrier Sense Capability	-	40MHz System	3, 7, 11	BPSK	MCS0	NA
Note: S : Sum of each Chain, W : [Worst result] x [Number of antenna ports]						

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 Frequency Tolerance

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
AC Power Source Schaffner	Proflin2105- 208NSG1007	55616	Note 2	Note 2	BV CPS E&E	(d)
Fixed Attenuator Woken	00800A1K01A-20	00800A1K01A-20- 02	2025/5/23	2026/5/22	BV CPS E&E	(d)
PXA Signal Analyzer Keysight	N9030A	MY54490260	2025/7/24	2026/7/23	ETC	(c)
Signal Analyzer R&S	FSV40	101544	2025/7/1	2026/6/30	ETC	(c)
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A	N/A	N/A
Digital Multimeter Fluke	8050A	4660081	2025/6/6	2026/6/5	ETC	(c)
HV Probe Fluke	80K-40HV	9606869	2025/6/10	2026/6/9	ETC	(c)

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The power supply no evaluation calibrated, which used the FLUKE meter to verify before each testing.
- The test was performed in LK - Oven
- Tested Date: 2025/11/20

4.2 Occupied Bandwidth

Refer to section 4.1 to get the tested date and information of the instruments.

4.3 Spurious Emissions

Refer to section 4.1 to get the tested date and information of the instruments.

4.4 Spurious Emissions of Receiver

Refer to section 4.1 to get the tested date and information of the instruments.

4.5 Antenna Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
Fixed Attenuator Woken	00800A1K01A-20	00800A1K01A-20-02	2025/5/23	2026/5/22	BV CPS E&E	(d)
MXG Vector Signal Generator Keysight	N5182B	MY53052658	2025/5/26	2026/5/25	ETC	(c)
Pulse Power Sensor Anritsu	MA2411B	1339443	2025/5/28	2026/5/27	ETC	(c)
PXA Signal Analyzer Keysight	N9030A	MY54490260	2025/7/24	2026/7/23	ETC	(c)
RF Power Meter Anritsu	ML2495A	1529002	2025/6/3	2026/6/2	ETC	(c)
Signal Analyzer R&S	FSV40	101544	2025/7/1	2026/6/30	ETC	(c)
Signal Generator Keysight	N5173B	MY53270724	2025/4/16	2026/4/15	ETC	(c)
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A	N/A	N/A
Wideband Power Sensor Keysight	N1923A	MY58020002	2025/1/21	2026/1/20	ETC	(c)

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The test was performed in LK - Oven
- Tested Date: 2025/11/4

4.6 Number of Carriers within 1 MHz Bandwidth in OFDM

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
AC Power Source Schaffner	Proflin2105- 208NSG1007	55616	Note 2	Note 2	BV CPS E&E	(d)
Fixed Attenuator Woken	00800A1K01A-20	00800A1K01A-20- 02	2025/5/23	2026/5/22	BV CPS E&E	(d)
PXA Signal Analyzer Keysight	N9030A	MY54490260	2025/7/24	2026/7/23	ETC	(c)
Signal Analyzer R&S	FSV40	101544	2025/7/1	2026/6/30	ETC	(c)
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A	N/A	N/A
Wireless Connectivity Tester R&S	CMW270	101075	2025/7/14	2026/7/13	ETC	(c)
Digital Multimeter Fluke	8050A	4660081	2025/6/6	2026/6/5	ETC	(c)
HV Probe Fluke	80K-40HV	9606869	2025/6/10	2026/6/9	ETC	(c)

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The power supply no evaluation calibrated, which used the FLUKE meter to verify before each testing.
- The test was performed in LK - Adaptive
- Tested Date: 2025/12/6

4.7 Interference Prevention Function

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
Fixed Attenuator Woken	00800A1K01A-20	00800A1K01A-20- 02	2025/5/23	2026/5/22	BV CPS E&E	(d)
Wireless Connectivity Tester R&S	CMW270	101075	2025/7/14	2026/7/13	ETC	(c)
		102033	2025/9/12	2026/9/11	ETC	(c)

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The test was performed in LK - Adaptive
- Tested Date: 2025/12/6

4.8 Carrier Sense Capability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
MXG Vector Signal Generator KEYSIGHT	N5182B	MY53050430	2025/12/5	2026/12/4	ETC	(c)
	N5182BU(N5182BX07)	MY59360189	2025/12/5	2026/12/4	ETC	(c)
Power Divider Solvang Technology	STI08-0008	STI08-0008_16	2024/12/20	2025/12/19	BV CPS E&E	(d)
		STI08-0008_17	2024/12/20	2025/12/19	BV CPS E&E	(d)
Signal Analyzer R&S	FSV40	101042	2025/9/19	2026/9/18	ETC	(c)
		101544	2025/7/1	2026/6/30	ETC	(c)
Signal Generator Keysight	N5173B	MY53270724	2025/4/16	2026/4/15	ETC	(c)
Spectrum Analyzer R&S	FSU43	100115	2025/2/12	2026/2/11	ETC	(c)

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The test was performed in LK - Adaptivity room.
- Tested Date: 2025/12/17

5 Limits of Test Items

5.1 Frequency Tolerance

Tolerance of frequency shall be +/- 50ppm.

5.2 Occupied Bandwidth

Modulation Method	Limit
DSSS	<26 MHz
OFDM	<26 MHz
	26 – 40 MHz
FHSS	<83.5 MHz
Other Digital	<26 MHz

5.3 Spurious Emissions

Frequencies	Limit
Operating frequency 2400 to 2483.5 MHz	
30.0 MHz to 1000.0 MHz	$\leq 0.25 \text{ uW}/100 \text{ kHz}$
1000.0 MHz to 2387 MHz	$\leq 2.5 \text{ uW}/\text{MHz}$
2387.0 MHz to 2400.0 MHz	$\leq 25 \text{ uW}/\text{MHz}$
2483.5 MHz to 2496.5 MHz	$\leq 25 \text{ uW}/\text{MHz}$
2496.5 MHz to 12500.0 MHz	$\leq 2.5 \text{ uW}/\text{MHz}$

5.4 Spurious Emissions of Receiver

Frequencies	Limit
Below 1 GHz	$\leq 4 \text{ nW}$
Above 1 GHz	$\leq 20 \text{ nW}$

5.5 Antenna Power

Modulation System	Frequency Band Used	Antenna Power (Max.)	E.I.R.P. Limit (Note 3)
DSSS	2400 – 2483.5 MHz	10 mW/MHz	12.14 dBm/MHz ~ 22.14 dBm/MHz (16.368 mW/MHz ~ 163.68 mW/MHz)
OFDM (Note 1)	2400 – 2483.5 MHz	10 mW/MHz	12.14 dBm/MHz ~ 22.14 dBm/MHz (16.368 mW/MHz ~ 163.68 mW/MHz)
OFDM (Note 2)	2400 – 2483.5 MHz	5 mW/MHz	9.13 dBm/MHz ~ 19.13 dBm/MHz (8.184 mW/MHz ~ 81.84 mW/MHz)
FHSS	2400 – 2483.5 MHz	3 mW/MHz	6.91 dBm/MHz ~ 16.91 dBm/MHz (4.91 mW/MHz ~ 49.10 mW/MHz)
Other Digital	2400 – 2483.5 MHz	10 mW	12.14 dBm ~ 22.14 dBm (16.368 mW ~ 163.68 mW)

Notes:

1. Occupied bandwidth is less than 26 MHz.
2. Occupied bandwidth is more than 26 MHz and less than 40 MHz.
3. E.I.R.P. limit is variable by the HPBA, the HPBA (half-power beam width) of the antenna shall be $360 / A$ degrees or less, where $A = \text{E.I.R.P.} / (2.14 \text{ dBi} + \text{"Antenna Power (limit)"})$.
4. Tolerance of antenna power shall be +20% (upper value).
5. When an E.I.R.P. is less than 2.14 dBi + antenna power limit. The shortage can be compensated for by the antenna power. (Application to transmitting devices using "Other method" is Limited to "GFSK")

5.6 Number of Carriers within 1 MHz Bandwidth in OFDM

For each 1 MHz bandwidth in OFDM, there should be at least 1 carrier.

5.7 Interference Prevention Function

When conducting wireless communications that transmit data or other information: A function that automatically sends or receives an identification code.

When performing radiolocation work: A function that allows you to distinguish between reflected waves of radio waves transmitted by your own station and radio waves transmitted by other radio stations by identifying the modulation method and other characteristics of received radio waves. (However, if it also has the function of transmitting signals for data transmission, both functions shall be included.)

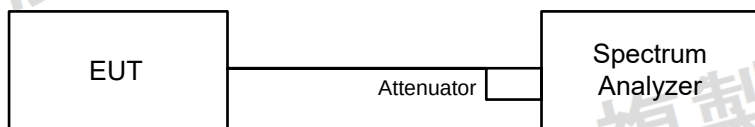
5.8 Carrier Sense Capability

Radio equipment used carrier sensing mechanism that based detect and avoid capabilities.

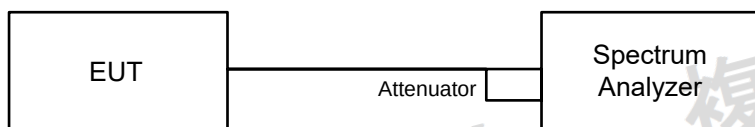
Note: When the E.I.R.P. shortage is compensated by the antenna power, the transmitter shall have a carrier sensing function. (Excluding "Other method" transmitters that switch frequencies within 4 seconds from the start of transmission)

6 Test Arrangements

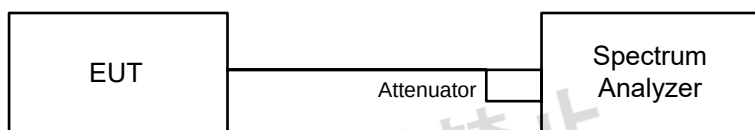
6.1 Frequency Tolerance



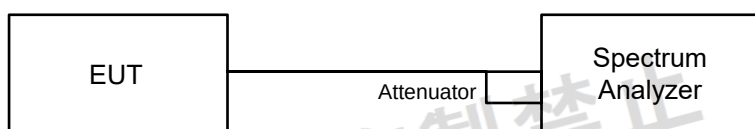
6.2 Occupied Bandwidth



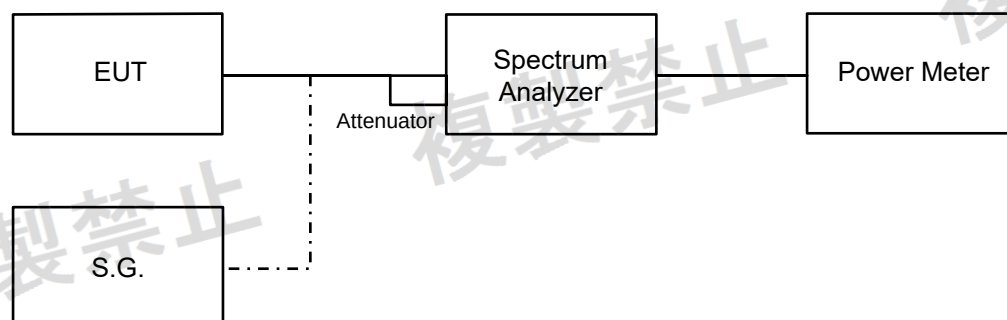
6.3 Spurious Emissions



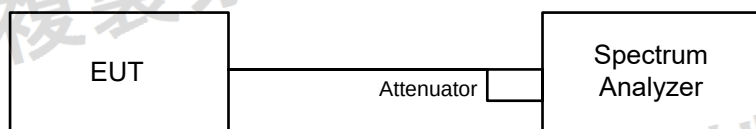
6.4 Spurious Emissions of Receiver



6.5 Antenna Power



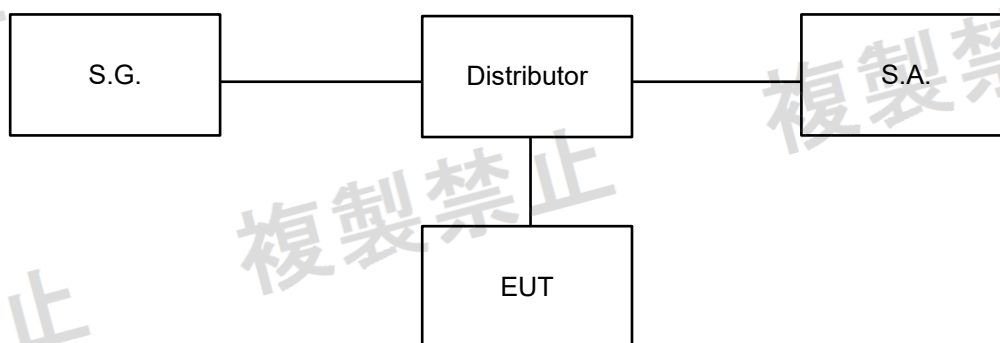
6.6 Number of Carriers within 1 MHz Bandwidth in OFDM



6.7 Interference Prevention Function



6.8 Carrier Sense Capability



7 Test Results of Test Item

7.1 Frequency Tolerance

Environmental Conditions:	25°C, 76% RH	Tested By:	Dalen Dai
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20 MHz System Chain 0

Channel	Frequency (MHz)	V _{normal}	
		Carrier frequency (MHz)	Frequency tolerance (ppm)
1	2412	2411.999120	-0.365
7	2442	2441.999440	-0.229
13	2472	2472.002920	1.181

40 MHz System Chain 0

Channel	Frequency (MHz)	V _{normal}	
		Carrier frequency (MHz)	Frequency tolerance (ppm)
3	2422	2422.001280	0.528
7	2442	2442.000200	0.082
11	2462	2462.000279	0.113

7.2 Occupied Bandwidth

Environmental Conditions:	25°C, 76% RH	Tested By:	Dalen Dai
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802.11b Chain 0

Channel	Frequency (MHz)	V _{normal}
		Occupied Bandwidth (MHz)
1	2412	13.09
7	2442	13.14
13	2472	13.07

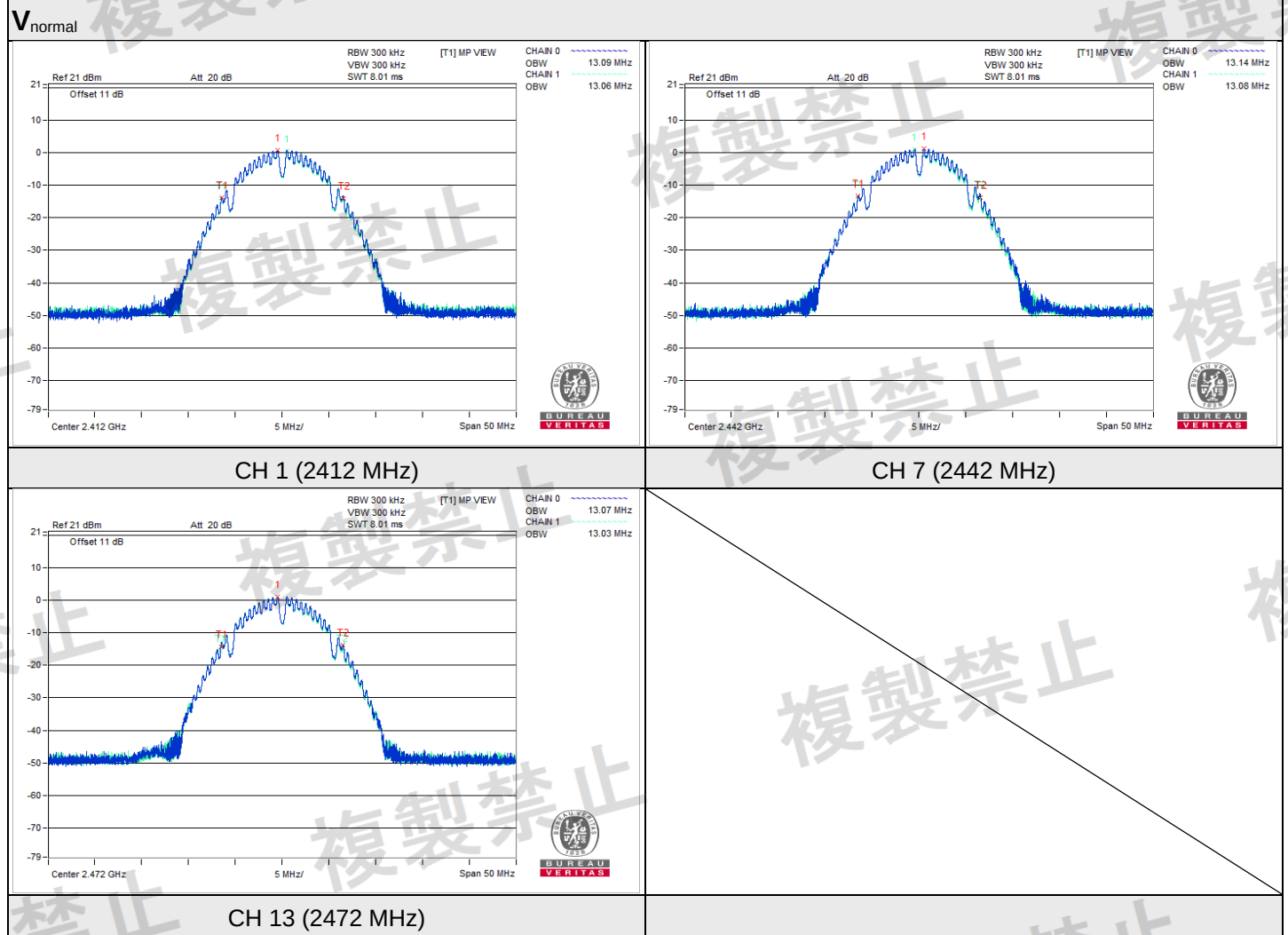
NOTE: For the test plots please refer to the below pages.

802.11b Chain 1

Channel	Frequency (MHz)	V _{normal}
		Occupied Bandwidth (MHz)
1	2412	13.06
7	2442	13.08
13	2472	13.03

NOTE: For the test plots please refer to the below pages.

802.11b Graph



802.11g Chain 0

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	16.39
7	2442	16.41
13	2472	16.39

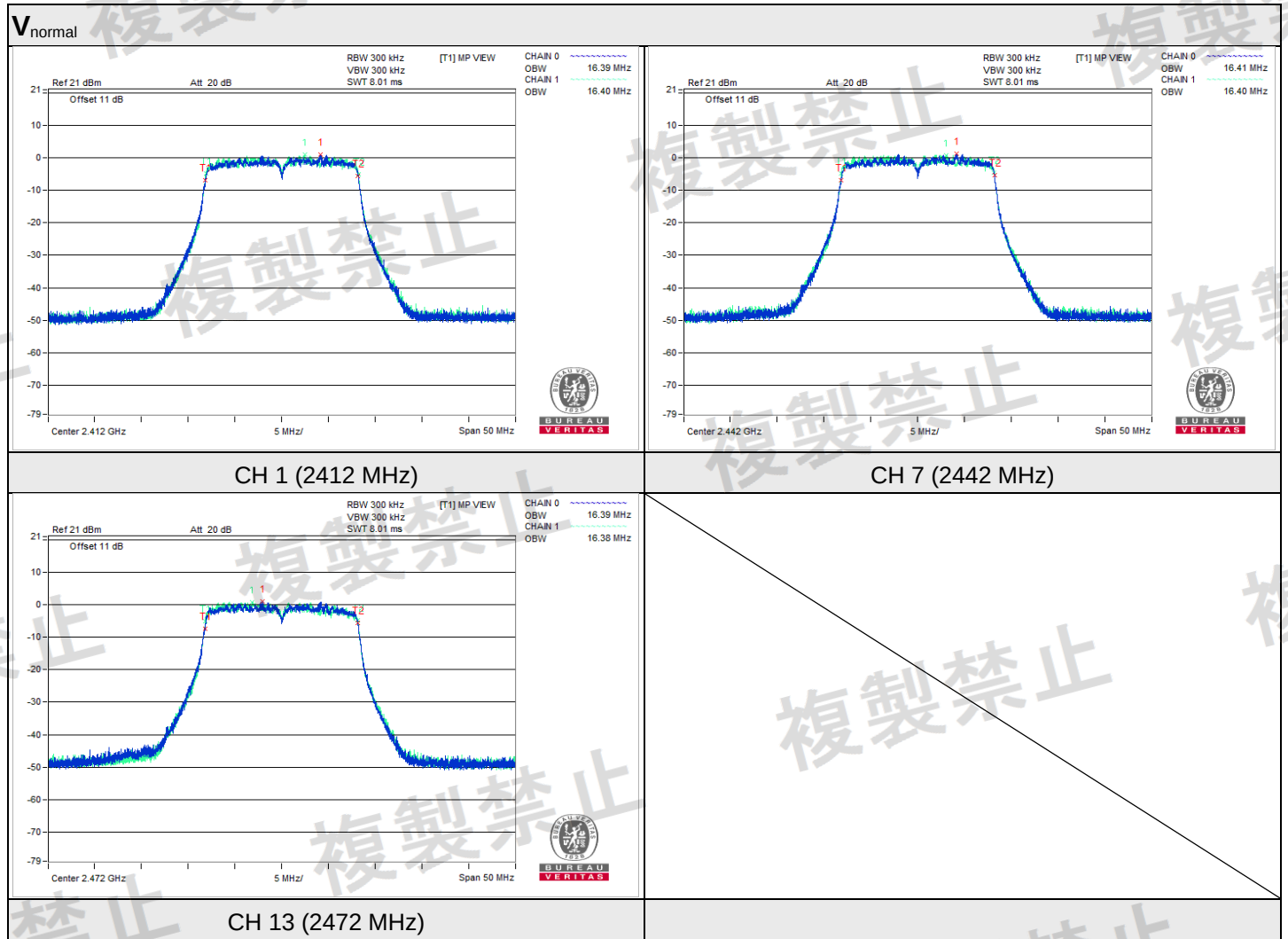
NOTE: For the test plots please refer to the below pages.

802.11g Chain 1

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	16.40
7	2442	16.40
13	2472	16.38

NOTE: For the test plots please refer to the below pages.

802.11g Graph



VHT20 Chain 0

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	17.59
7	2442	17.60
13	2472	17.57

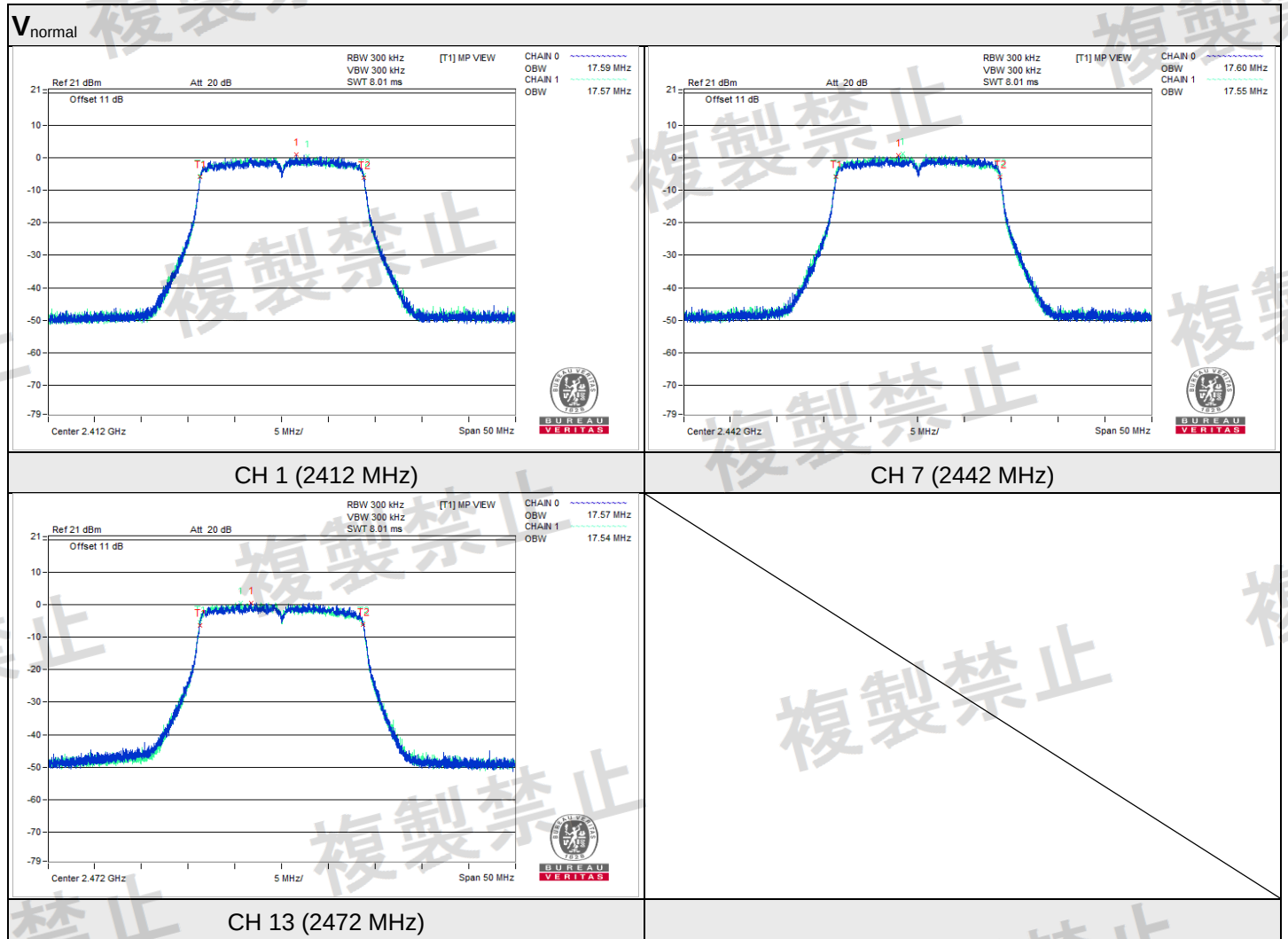
NOTE: For the test plots please refer to the below pages.

VHT20 Chain 1

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	17.57
7	2442	17.55
13	2472	17.54

NOTE: For the test plots please refer to the below pages.

VHT20 Graph



VHT40 Chain 0

Channel	Frequency (MHz)	V _{normal}
		Occupied Bandwidth (MHz)
3	2422	35.95
7	2442	35.95
11	2462	35.90

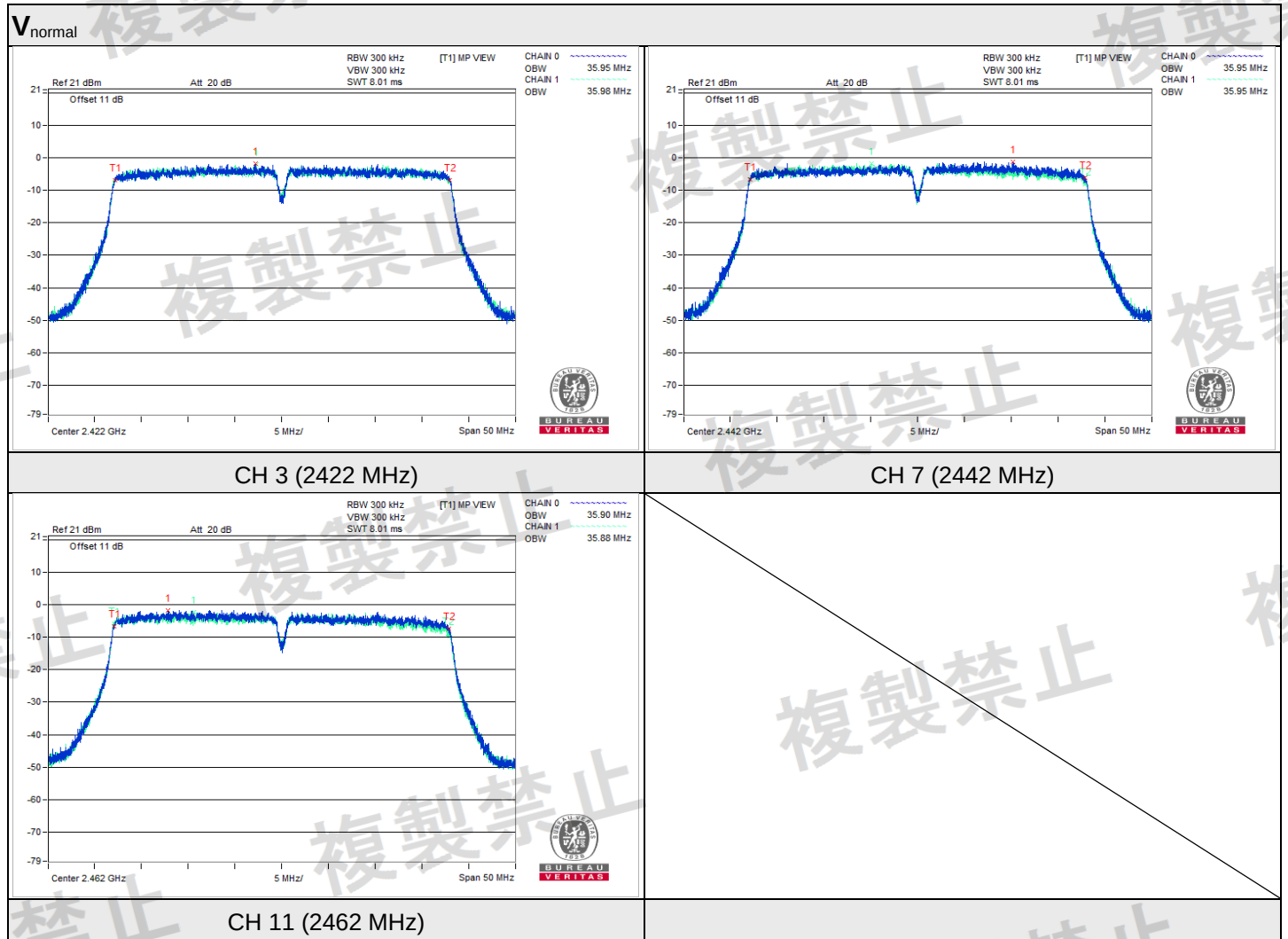
NOTE: For the test plots please refer to the below pages.

VHT40 Chain 1

Channel	Frequency (MHz)	V _{normal}
		Occupied Bandwidth (MHz)
3	2422	35.98
7	2442	35.95
11	2462	35.88

NOTE: For the test plots please refer to the below pages.

VHT40 Graph



802.11ax (HE20) Chain 0

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	18.93
7	2442	18.95
13	2472	18.93

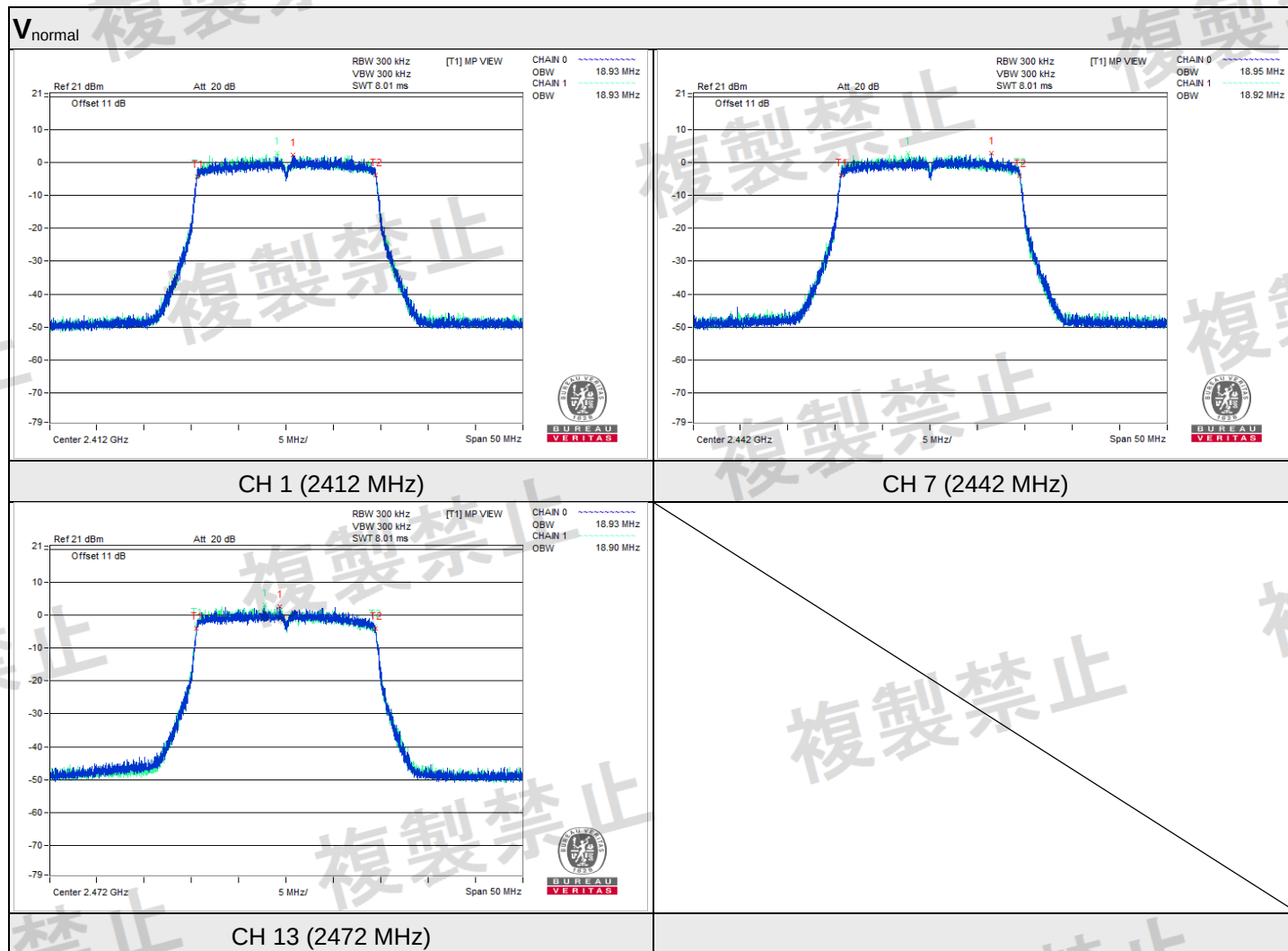
NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) Chain 1

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	18.93
7	2442	18.92
13	2472	18.90

NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) Graph



802.11ax (HE40) Chain 0

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
3	2422	37.70
7	2442	37.70
11	2462	37.64

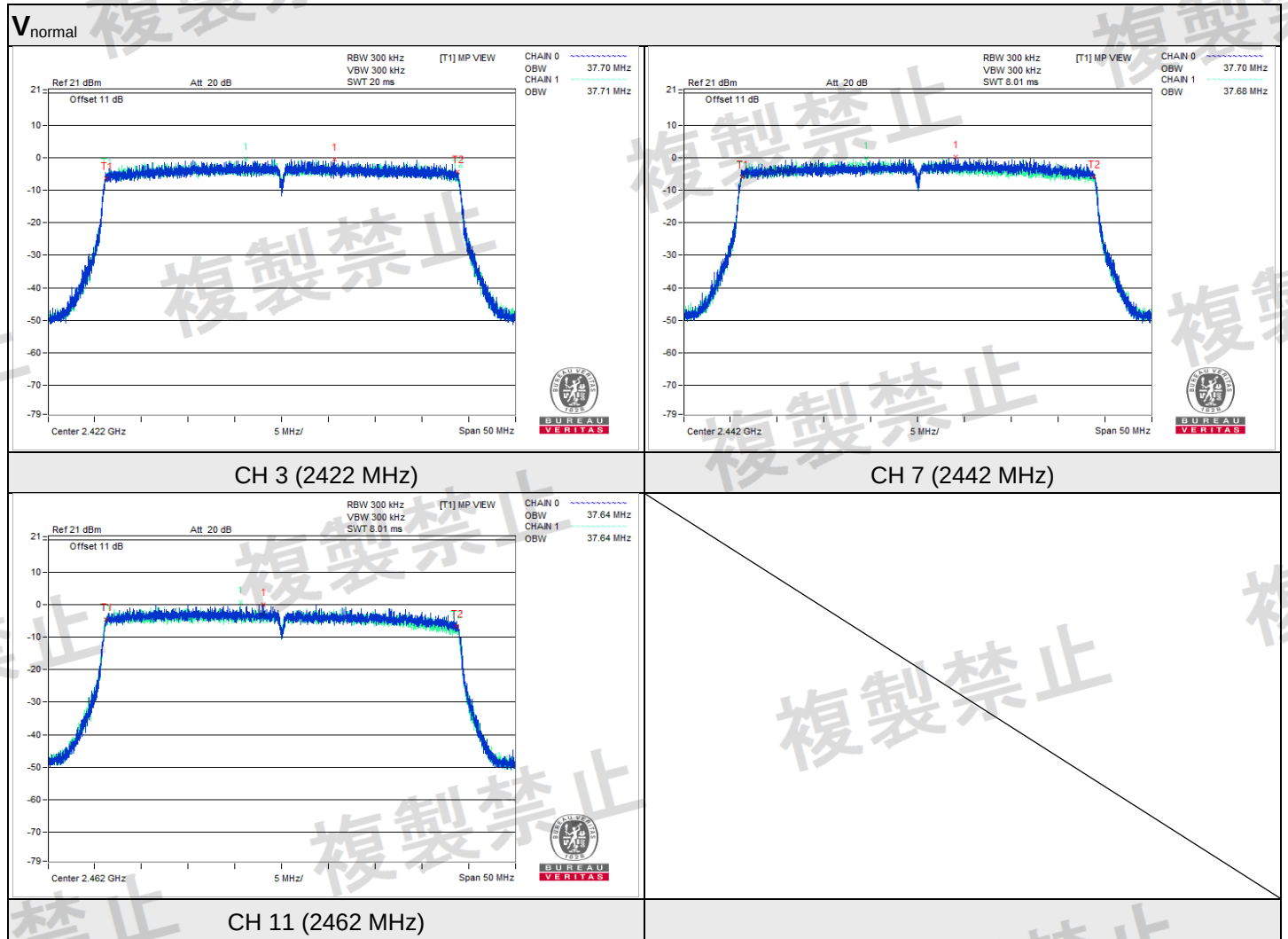
NOTE: For the test plots please refer to the below pages.

802.11ax (HE40) Chain 1

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
3	2422	37.71
7	2442	37.68
11	2462	37.64

NOTE: For the test plots please refer to the below pages.

802.11ax (HE40) Graph



802.11ax (HE20) 26-tone RU Chain 0

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	2.34
7	2442	2.36
13	2472	2.36

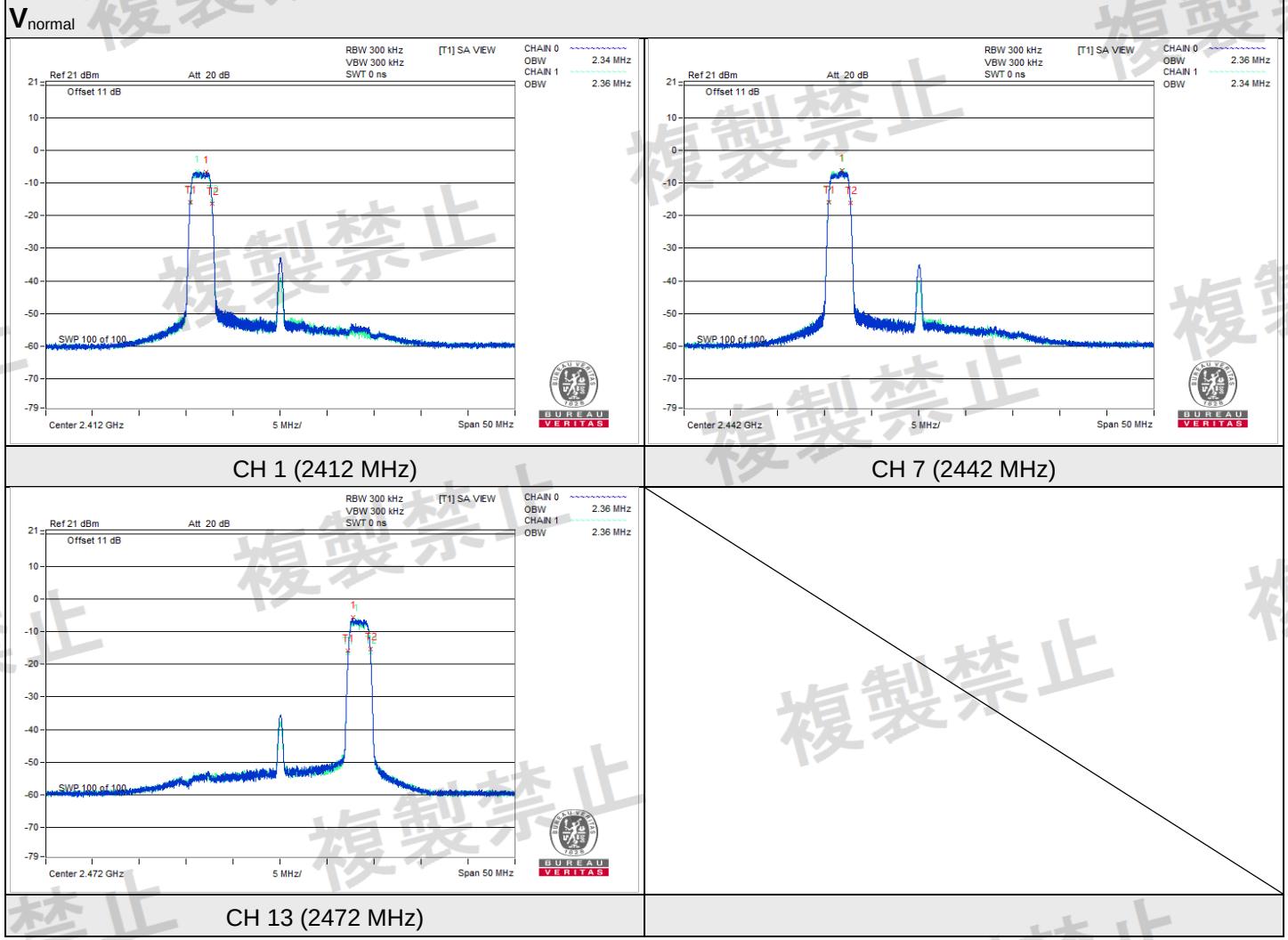
NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) 26-tone RU Chain 1

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	2.36
7	2442	2.34
13	2472	2.36

NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) 26-tone RU Graph



802.11ax (HE20) 52-tone RU Chain 0

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	4.29
7	2442	4.29
13	2472	4.25

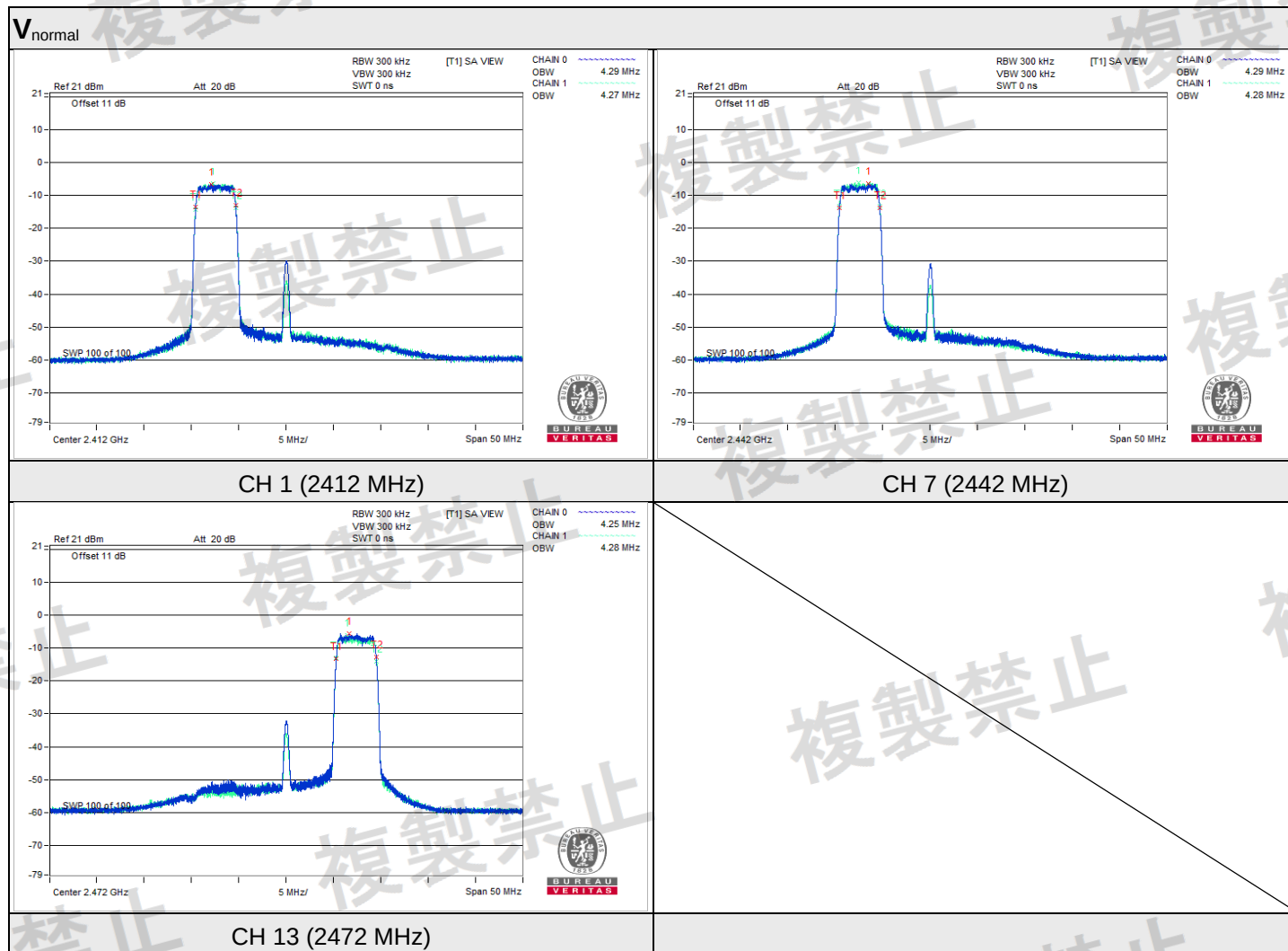
NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) 52-tone RU Chain 1

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	4.27
7	2442	4.28
13	2472	4.28

NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) 52-tone RU Graph



802.11ax (HE20) 106-tone RU Chain 0

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	8.35
7	2442	8.37
13	2472	8.35

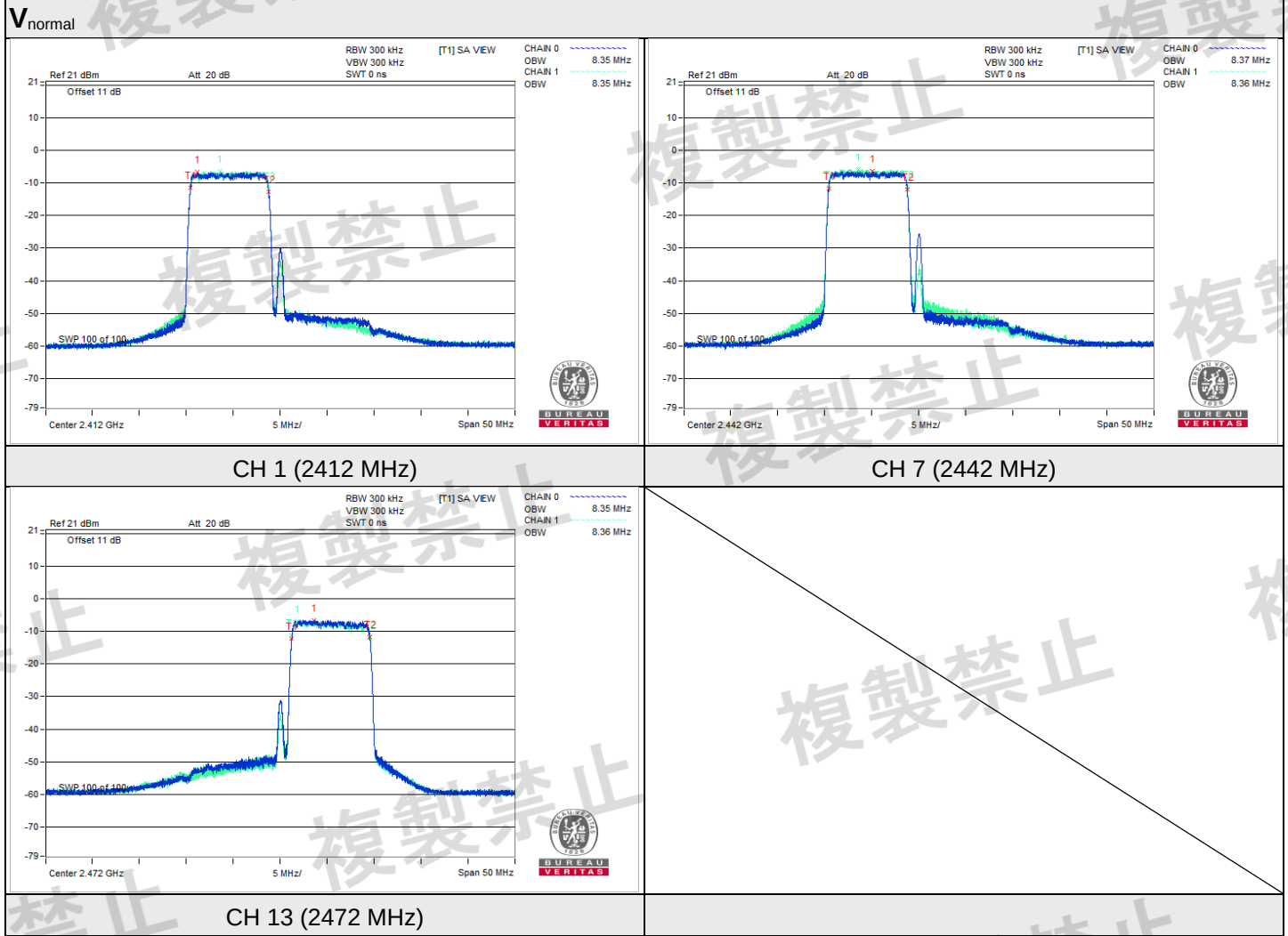
NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) 106-tone RU Chain 1

Channel	Frequency (MHz)	V_{normal}
		Occupied Bandwidth (MHz)
1	2412	8.35
7	2442	8.36
13	2472	8.36

NOTE: For the test plots please refer to the below pages.

802.11ax (HE20) 106-tone RU Graph



7.3 Spurious Emissions

Environmental Conditions:	25°C, 76% RH	Tested By:	Dalen Dai
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802.11b Chain 0

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	864.079	0.001045 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2187.445	0.068865 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.945	0.41115 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2490.257	0.100693 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	10648.102	0.229087 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	787.812	0.001146 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2296.498	0.065766 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2398.729	0.07145 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2496.182	0.085507 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11384.610	0.236592 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	673.231	0.001159 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2351.285	0.062661 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2389.415	0.07709 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.572	0.459198 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	6984.320	0.200909 uW/MHz	1.25 uW/MHz	PASS

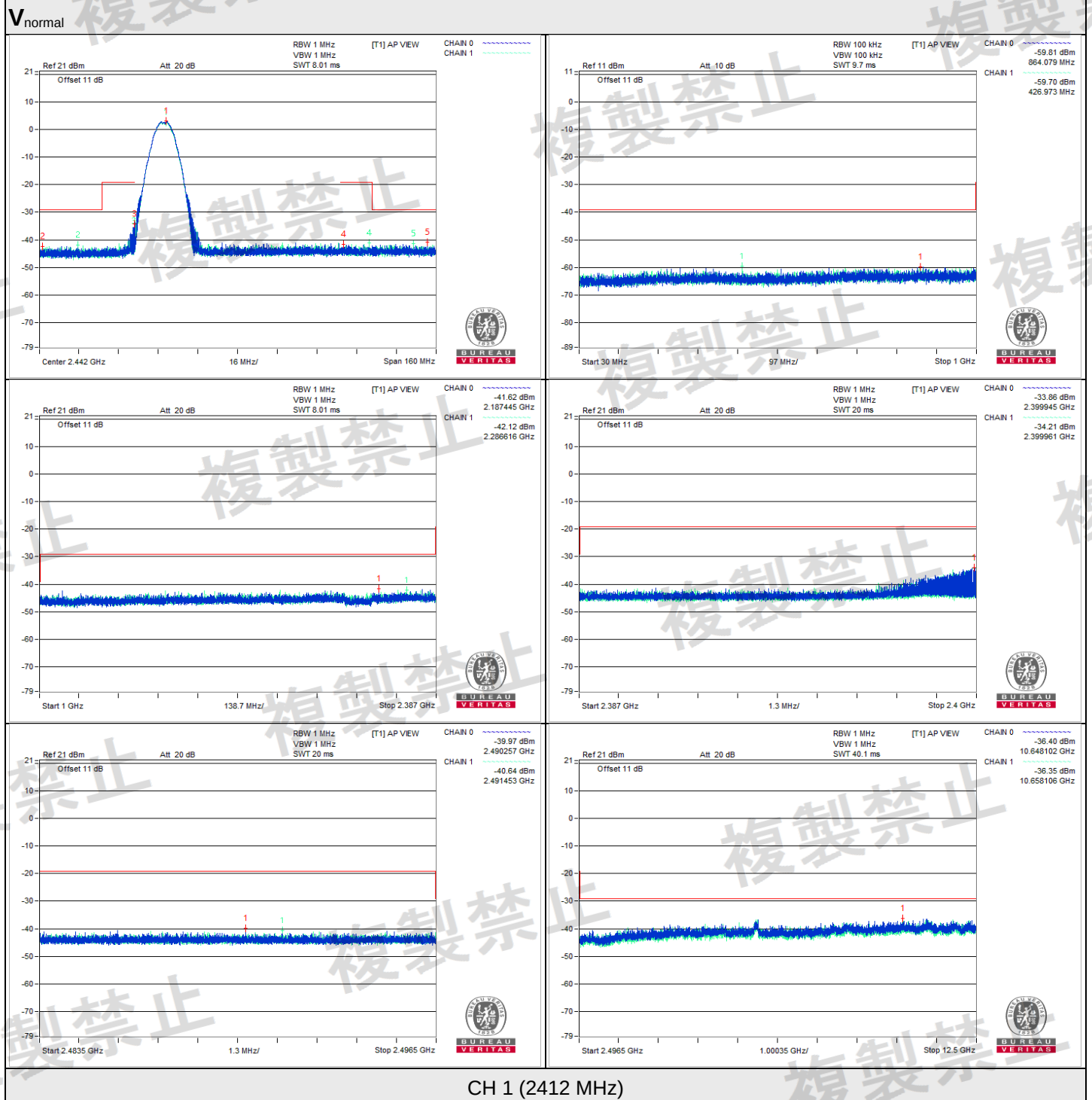
NOTE: 1. The spectrum plots are attached on the following pages.

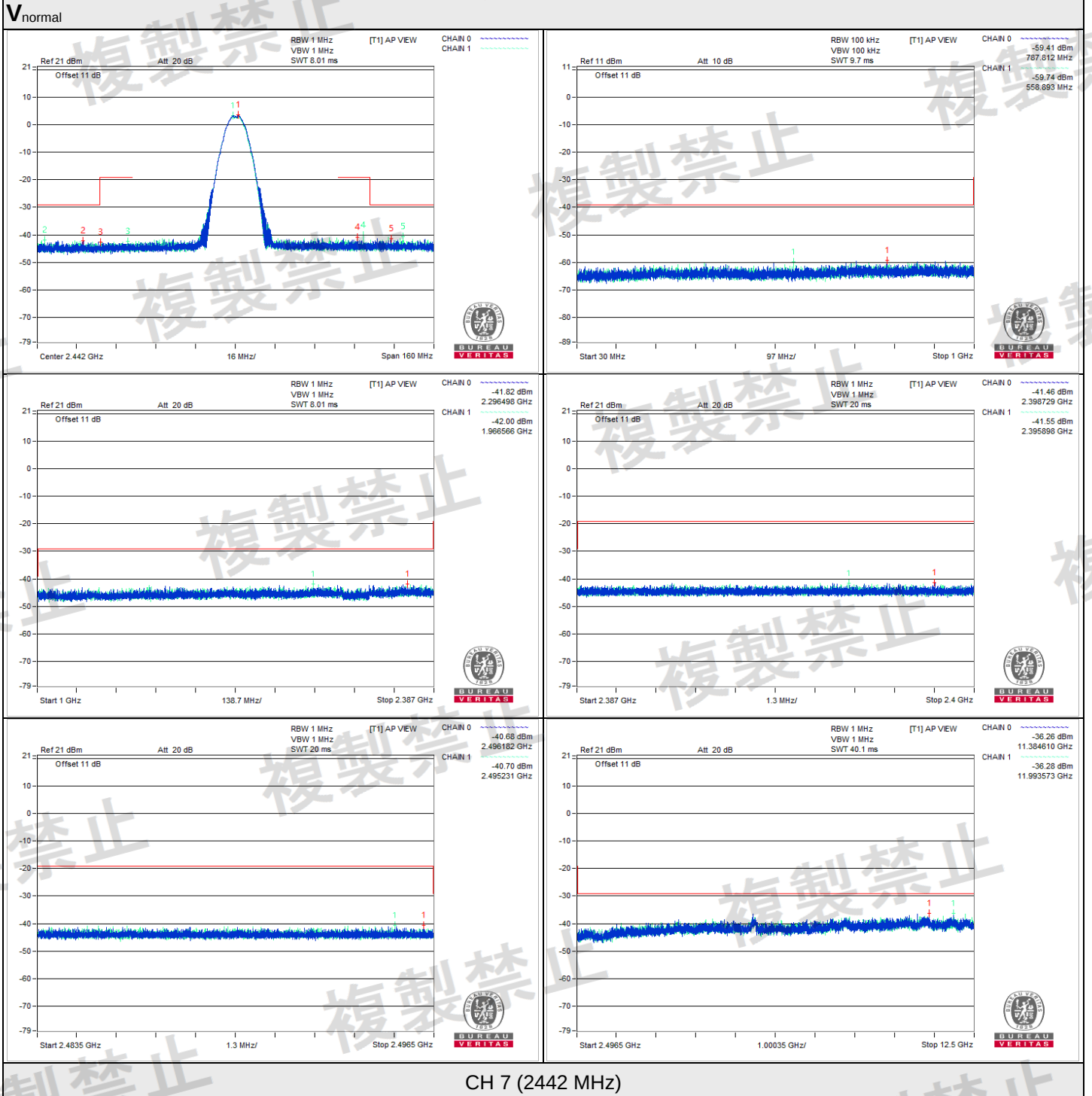
802.11b Chain 1

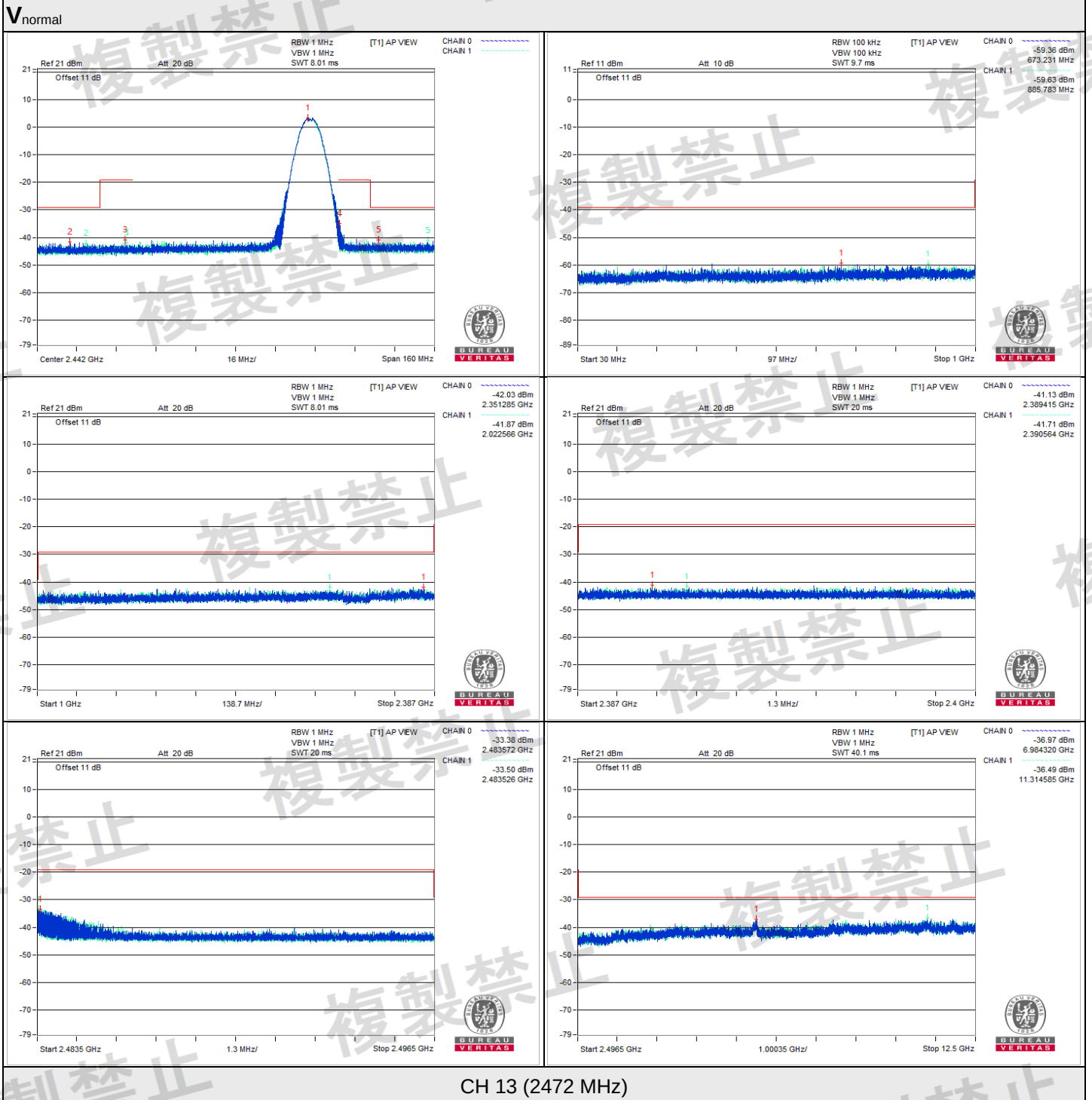
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	426.973	0.001072 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2286.616	0.061376 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.961	0.379315 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2491.453	0.086298 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	10658.106	0.231739 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	558.893	0.001062 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1966.566	0.063096 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2395.898	0.069984 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2495.231	0.085114 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11993.573	0.235505 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	885.783	0.001089 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2022.566	0.065013 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2390.564	0.067453 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.526	0.446684 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11314.585	0.224388 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

802.11b Graph







802.11b [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V_{normal}	30.0 to 1000.0	0.002144 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.137730 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.822300 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.201386 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.463478 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V_{normal}	30.0 to 1000.0	0.002292 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.131532 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.142900 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.171014 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.473184 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V_{normal}	30.0 to 1000.0	0.002318 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.130026 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.154180 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.918396 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.448776 uW/MHz	2.5 uW/MHz	PASS

802.11g Chain 0

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	860.199	0.001153 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2317.650	0.082604 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.945	1.282331 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2484.571	0.085901 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	10771.895	0.209411 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	815.215	0.001005 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2318.343	0.065013 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2389.576	0.069502 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2493.994	0.089536 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11232.056	0.241546 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	881.296	0.001122 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2324.585	0.066527 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2398.265	0.073282 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.531	1.686553 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	6994.324	0.228034 uW/MHz	1.25 uW/MHz	PASS

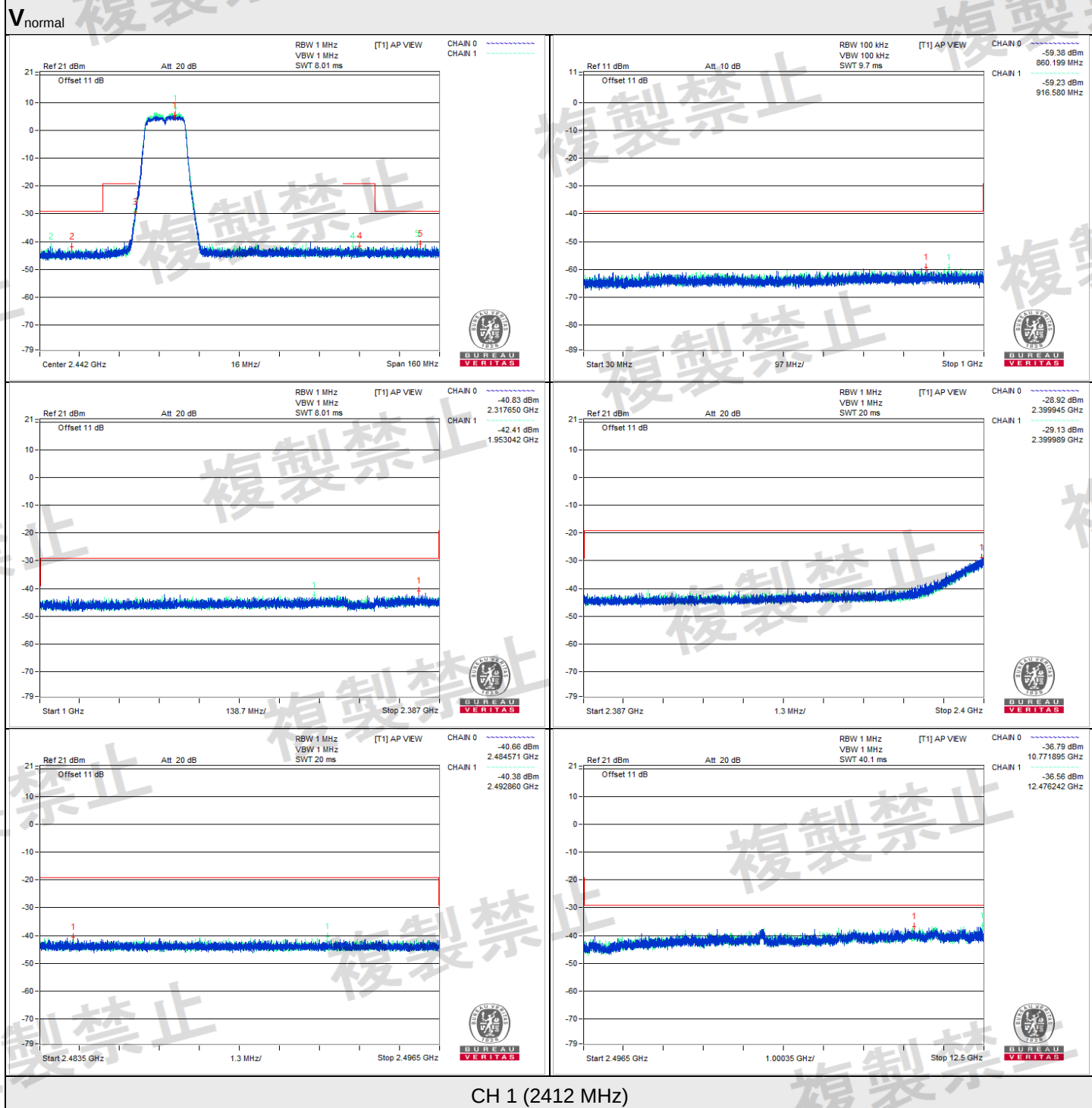
NOTE: 1. The spectrum plots are attached on the following pages.

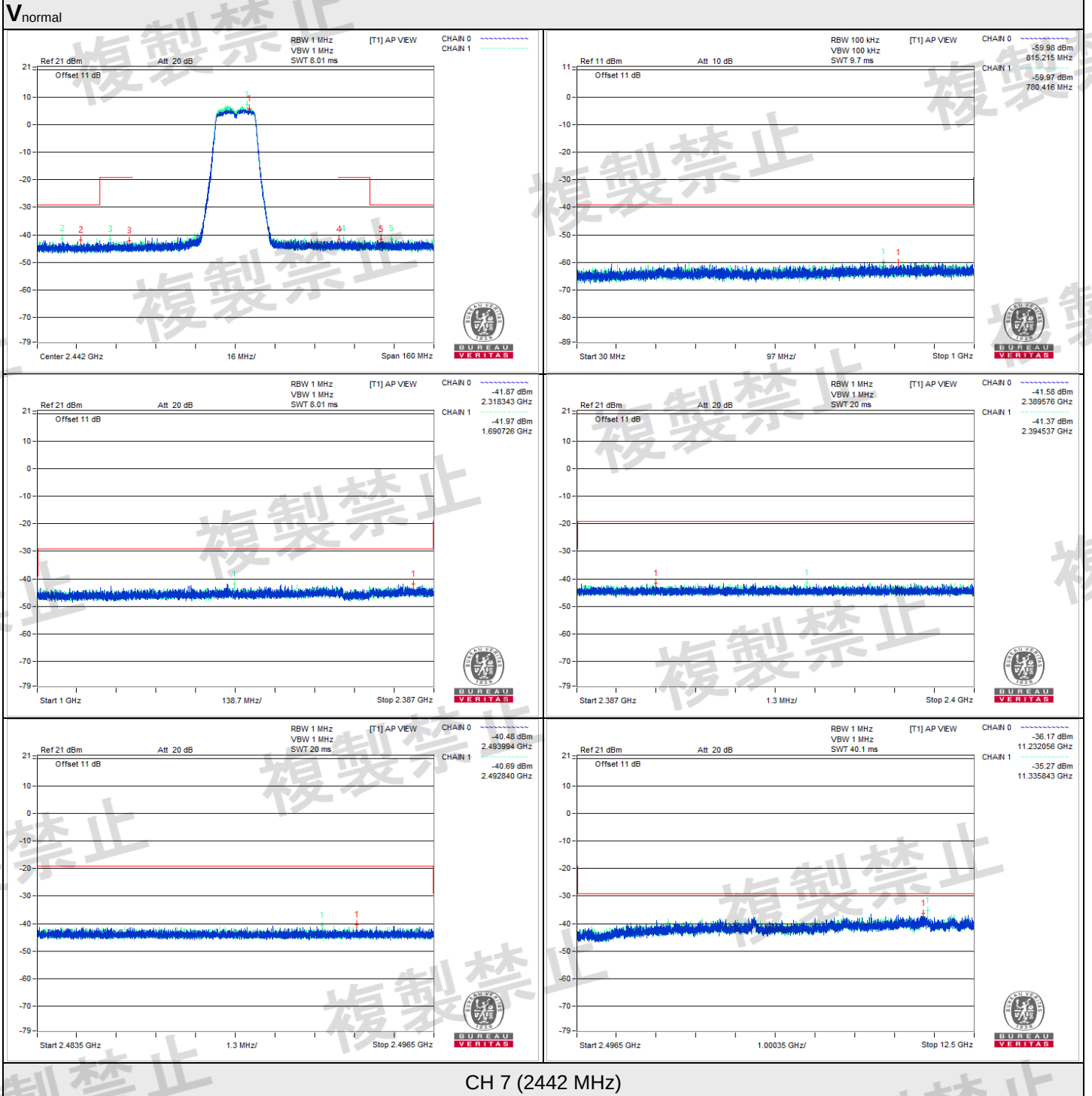
802.11g Chain 1

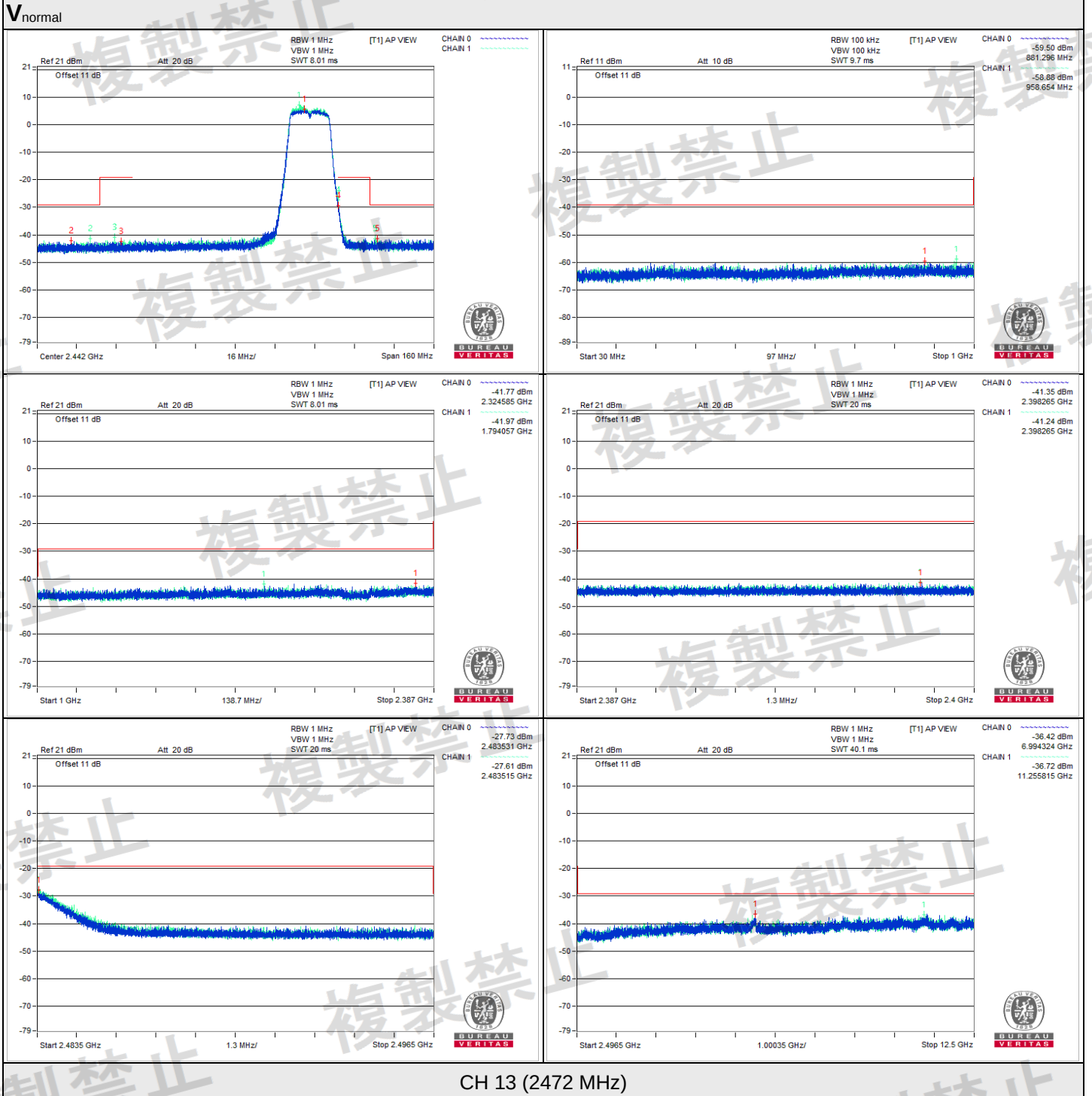
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	916.580	0.001194 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1953.042	0.057412 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.989	1.2218 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2492.860	0.091622 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	12476.242	0.2208 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	780.416	0.001007 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1690.726	0.063533 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2394.537	0.072946 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2492.840	0.08531 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11335.843	0.297167 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	958.654	0.001294 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1794.057	0.063533 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2398.265	0.075162 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.515	1.733804 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11255.815	0.212814 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

802.11g Graph







802.11g [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	0.002388 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.165208 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2.564662 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.183244 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.441600 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V _{normal}	30.0 to 1000.0	0.002014 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.130026 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.145892 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.179072 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.594334 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V _{normal}	30.0 to 1000.0	0.002588 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.133054 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.150324 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	3.467608 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.456068 uW/MHz	2.5 uW/MHz	PASS

VHT20 Chain 0

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	890.026	0.001079 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2358.393	0.072611 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.937	2.93765 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2492.402	0.104954 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11317.086	0.224905 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	987.875	0.00104 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2302.913	0.062951 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2390.739	0.081283 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2491.347	0.091622 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	6945.557	0.216272 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	938.163	0.001132 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2371.916	0.068391 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.826	0.084723 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.537	4.14954 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	6964.313	0.233884 uW/MHz	1.25 uW/MHz	PASS

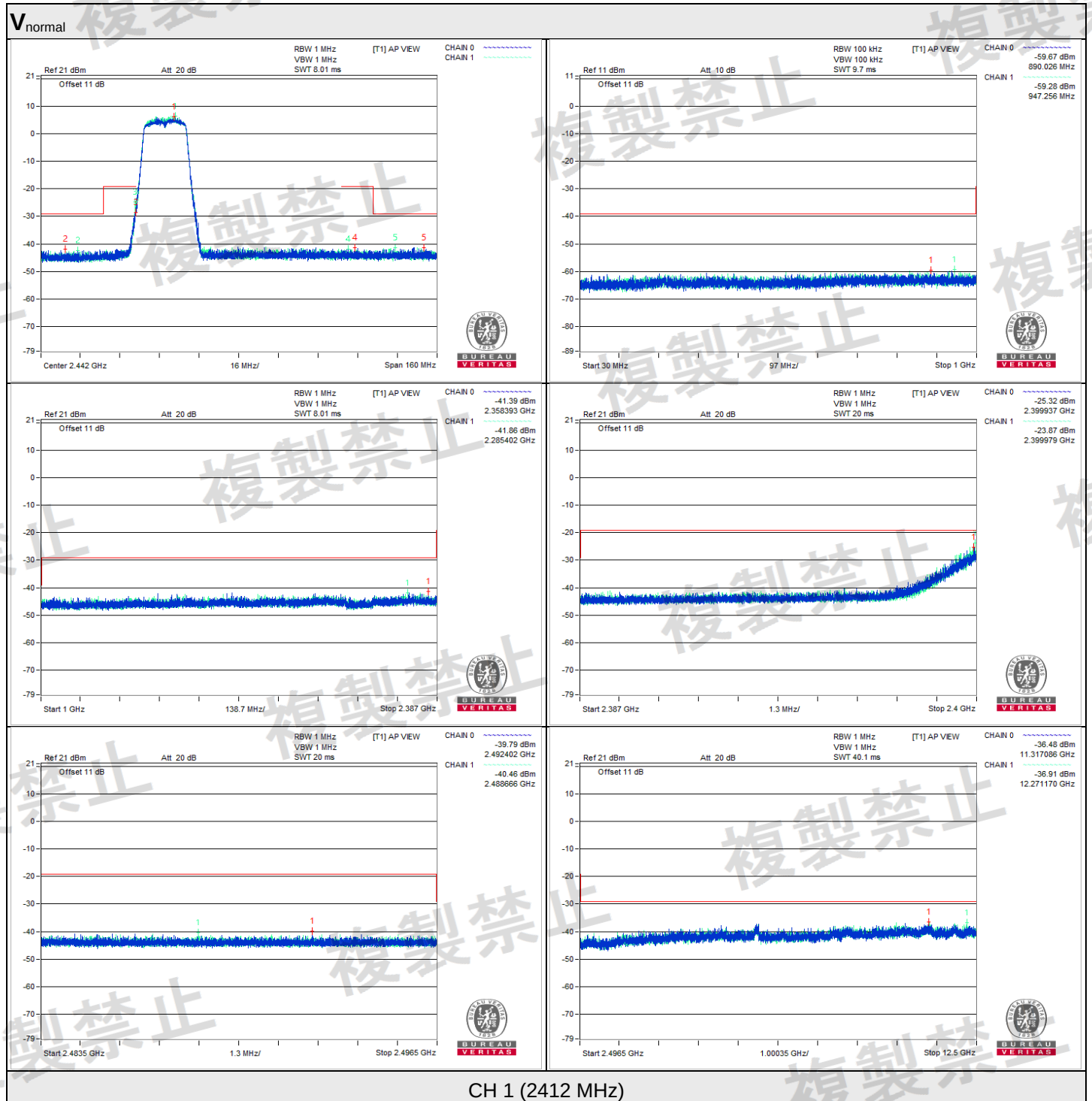
NOTE: 1. The spectrum plots are attached on the following pages.

VHT20 Chain 1

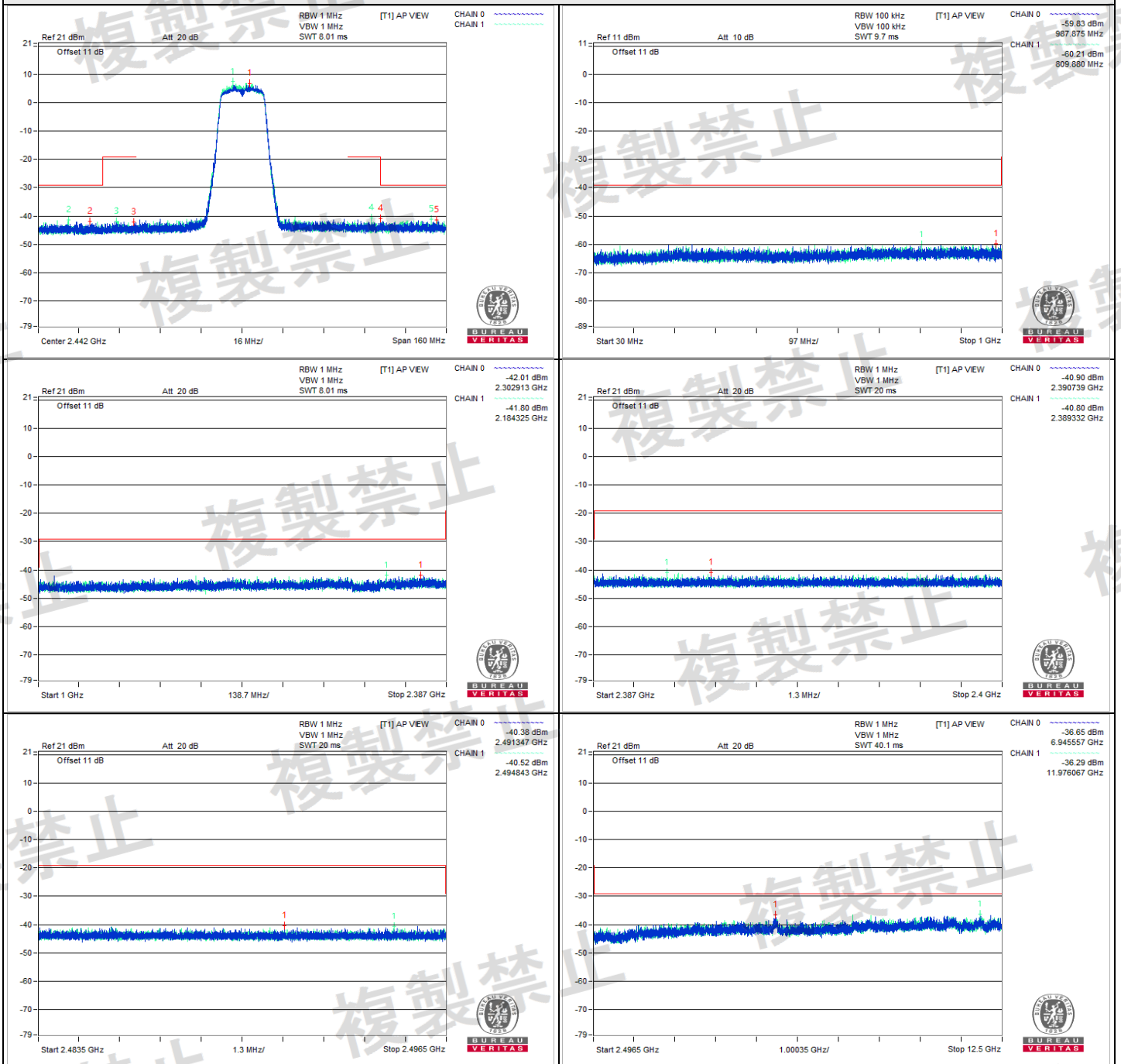
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	947.256	0.00118 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2285.402	0.065163 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.979	4.102041 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2488.666	0.08995 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	12271.170	0.203704 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	809.880	0.000953 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2184.325	0.066069 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2389.332	0.083176 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2494.843	0.088716 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11976.067	0.234963 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	661.591	0.001117 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2133.179	0.063096 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2394.742	0.077268 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.541	3.515604 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	9161.332	0.226986 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

VHT20 Graph

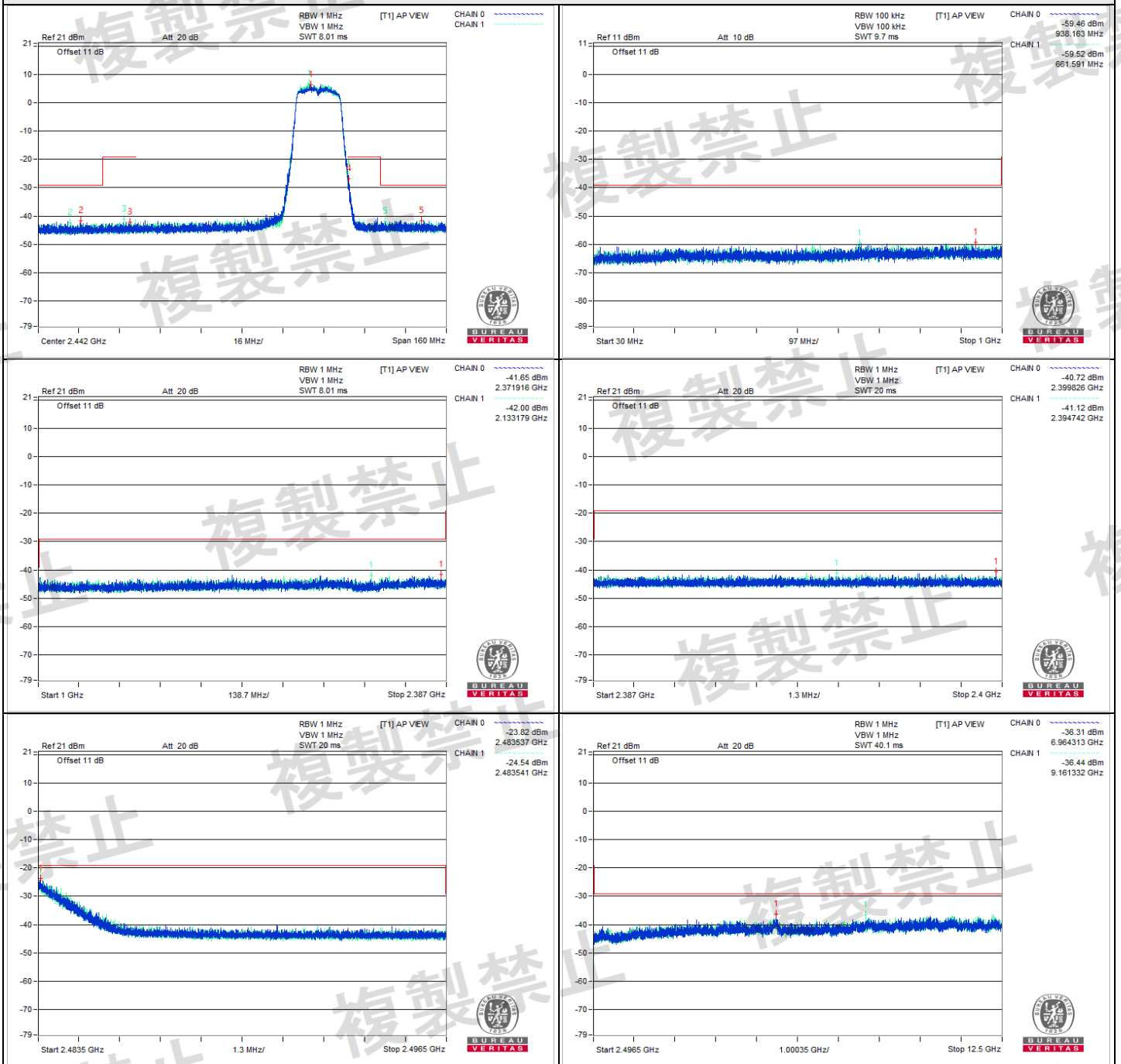


Vnormal



CH 7 (2442 MHz)

Vnormal



CH 13 (2472 MHz)

VHT20 [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	0.002360 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.145222 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	8.204082 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.209908 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.449810 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V _{normal}	30.0 to 1000.0	0.002080 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.132138 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.166352 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.183244 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.469926 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V _{normal}	30.0 to 1000.0	0.002264 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.136782 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.169446 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	8.299080 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.467768 uW/MHz	2.5 uW/MHz	PASS

VHT40 Chain 0

TEST CHANNEL		CH 3 (2422 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	659.166	0.001151 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2309.501	0.077983 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.971	0.818465 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2495.020	0.086099 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11317.086	0.238781 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	564.834	0.001132 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2318.690	0.063241 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2397.286	0.076033 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2487.697	0.082604 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11066.999	0.210863 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 11 (2462 MHz)			
V _{normal}	30.0 to 1000.0	683.780	0.000971 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1971.420	0.065013 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2389.412	0.073961 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.576	0.831764 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	10764.393	0.21677 uW/MHz	1.25 uW/MHz	PASS

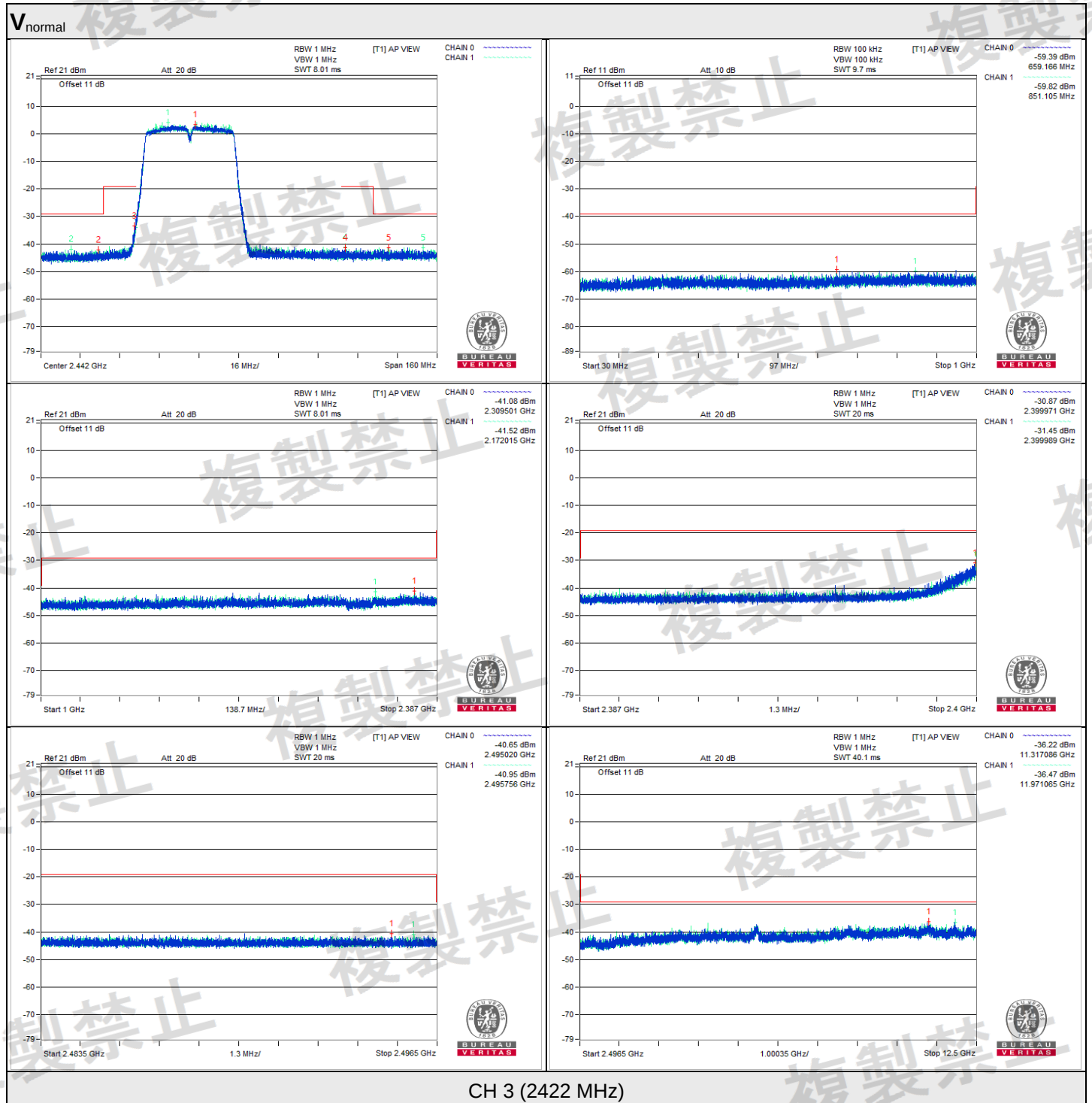
NOTE: 1. The spectrum plots are attached on the following pages.

VHT40 Chain 1

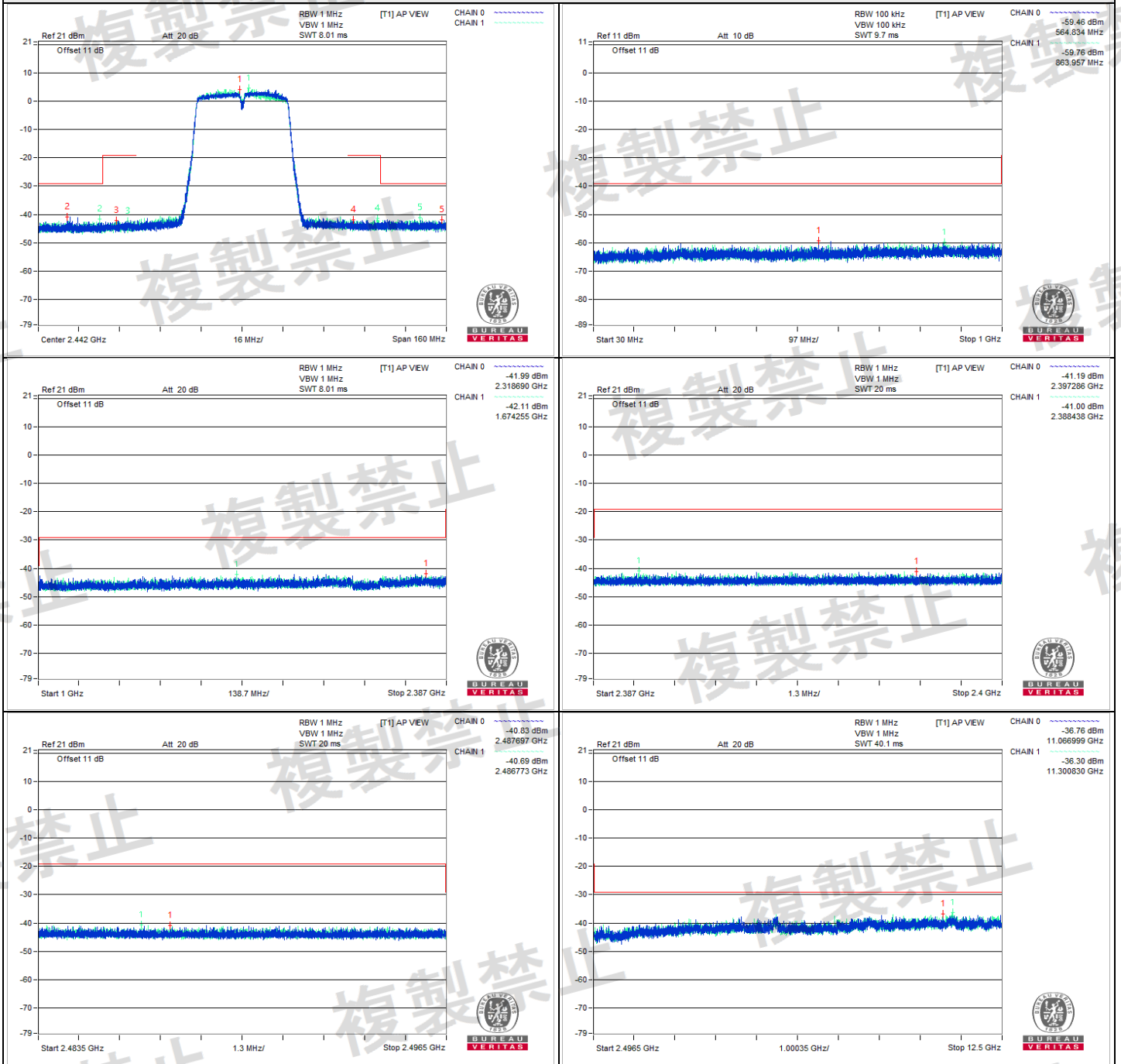
TEST CHANNEL		CH 3 (2422 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	851.105	0.001042 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2172.015	0.070469 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.989	0.716143 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2495.756	0.080353 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11971.065	0.225424 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	863.957	0.001057 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1674.255	0.061518 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2388.438	0.079433 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2486.773	0.08531 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11300.830	0.234423 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 11 (2462 MHz)			
V _{normal}	30.0 to 1000.0	972.961	0.001069 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2006.789	0.067608 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2397.164	0.092683 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.528	0.744732 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11448.382	0.200909 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

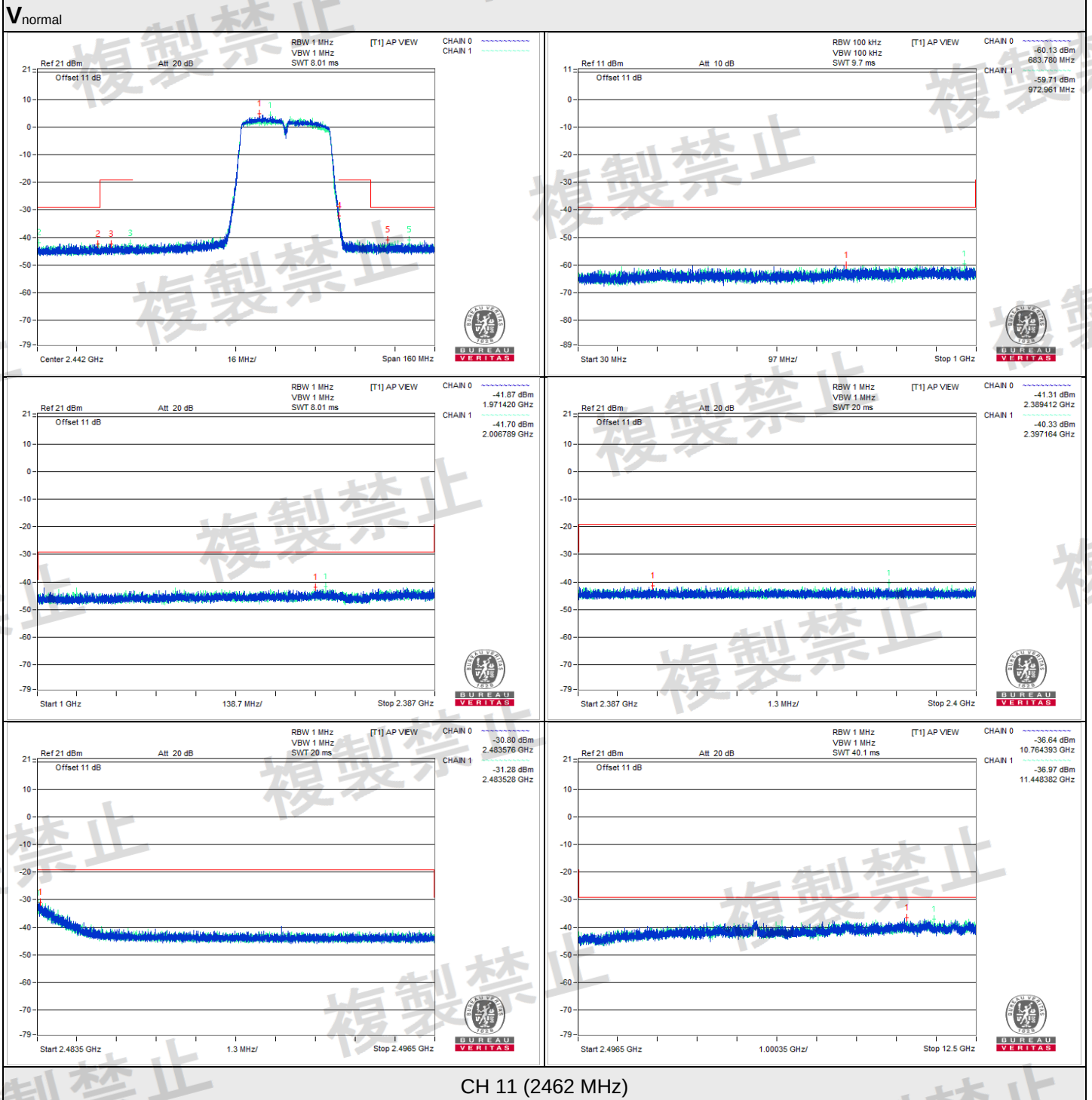
VHT40 Graph



Vnormal



CH 7 (2442 MHz)



VHT40 [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 3 (2422 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	0.002302 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.155966 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	1.636930 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.172198 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.477562 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V _{normal}	30.0 to 1000.0	0.002264 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.126482 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.158866 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.170620 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.468846 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 11 (2462 MHz)		
V _{normal}	30.0 to 1000.0	0.002138 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.135216 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.185366 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	1.663528 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.433540 uW/MHz	2.5 uW/MHz	PASS

802.11ax (HE20) Chain 0

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	616.850	0.001059 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1005.028	0.070795 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.951	3.380648 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2495.098	0.083946 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11207.048	0.27227 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	904.334	0.001102 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1856.646	0.060674 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2393.290	0.092045 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.604	0.08531 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11258.316	0.222331 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	889.056	0.001135 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2255.235	0.064121 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2389.163	0.08414 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.528	0.058862 uW/MHz	12.5 uW/MHz	PASS(1)
	2496.5 to 12500.0	11203.296	0.289734 uW/MHz	1.25 uW/MHz	PASS

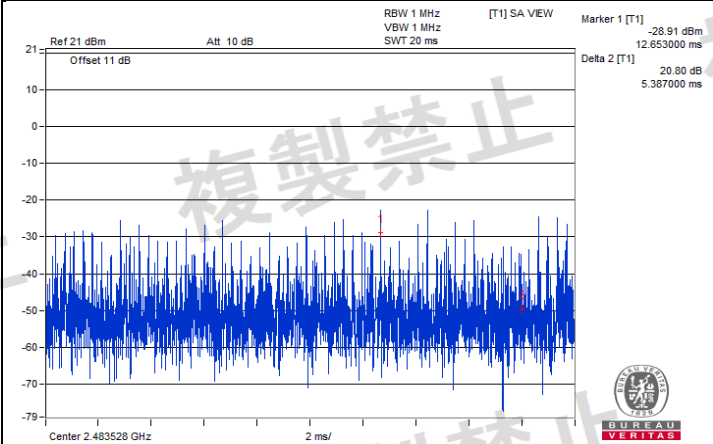
NOTE: 1. The spectrum plots are attached on the following pages.

2. (No.): The value was tested under Measuring Mode *Zero Span.



Measuring Mode *Zero Span

1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the “dBm” value into “uW” value.
3. It adds the all values and calculates a grand total. Define a grand total as “P”.
4. It divides “P” by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



1	2483.528MHz	P = 0.058862 uW/MHz			
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802.11ax (HE20) Chain 1

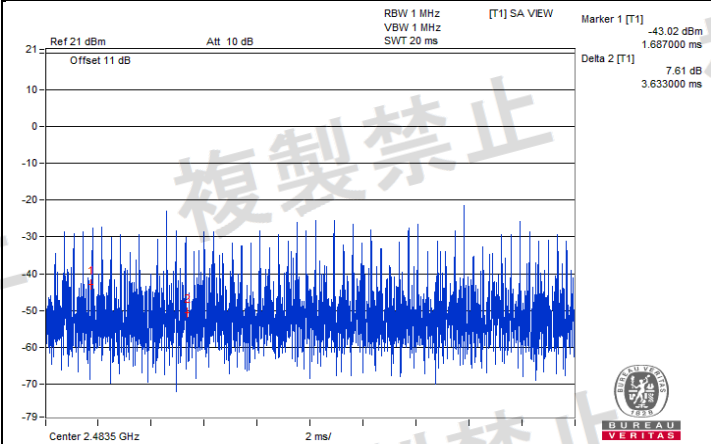
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	687.903	0.001199 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1985.810	0.057412 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.984	4.425884 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2490.980	0.082794 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	10675.612	0.218776 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	646.799	0.001047 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1958.764	0.065615 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2393.466	0.070795 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2490.338	0.09528 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	6961.812	0.287078 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	754.832	0.001132 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1650.330	0.070469 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2398.112	0.082035 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.500	0.056113 uW/MHz	12.5 uW/MHz	PASS(1)
	2496.5 to 12500.0	11630.946	0.192309 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.
2. (No.): The value was tested under Measuring Mode *Zero Span.



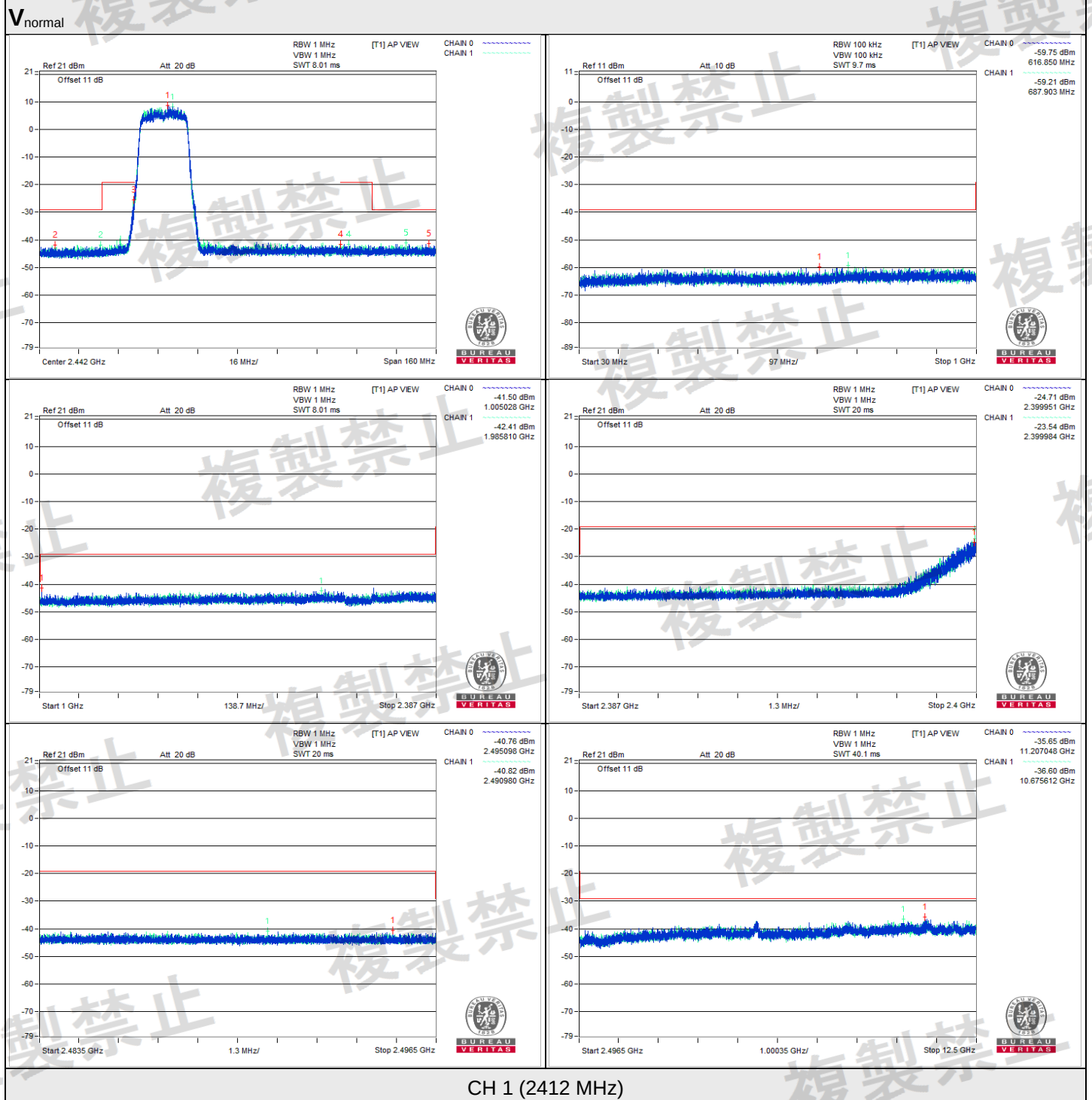
Measuring Mode *Zero Span

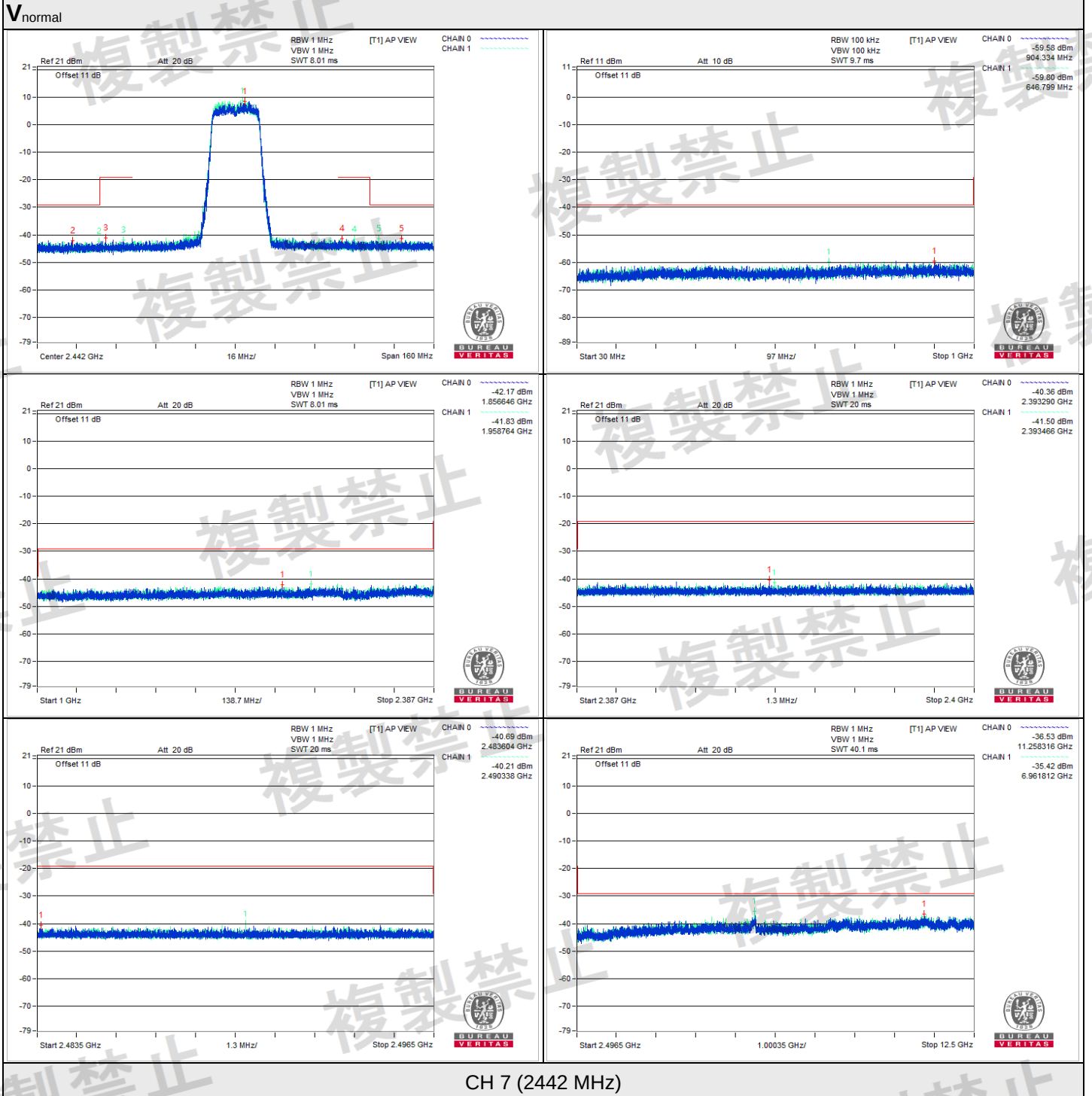
1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the “dBm” value into “uW” value.
3. It adds the all values and calculates a grand total. Define a grand total as “P”.
4. It divides “P” by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



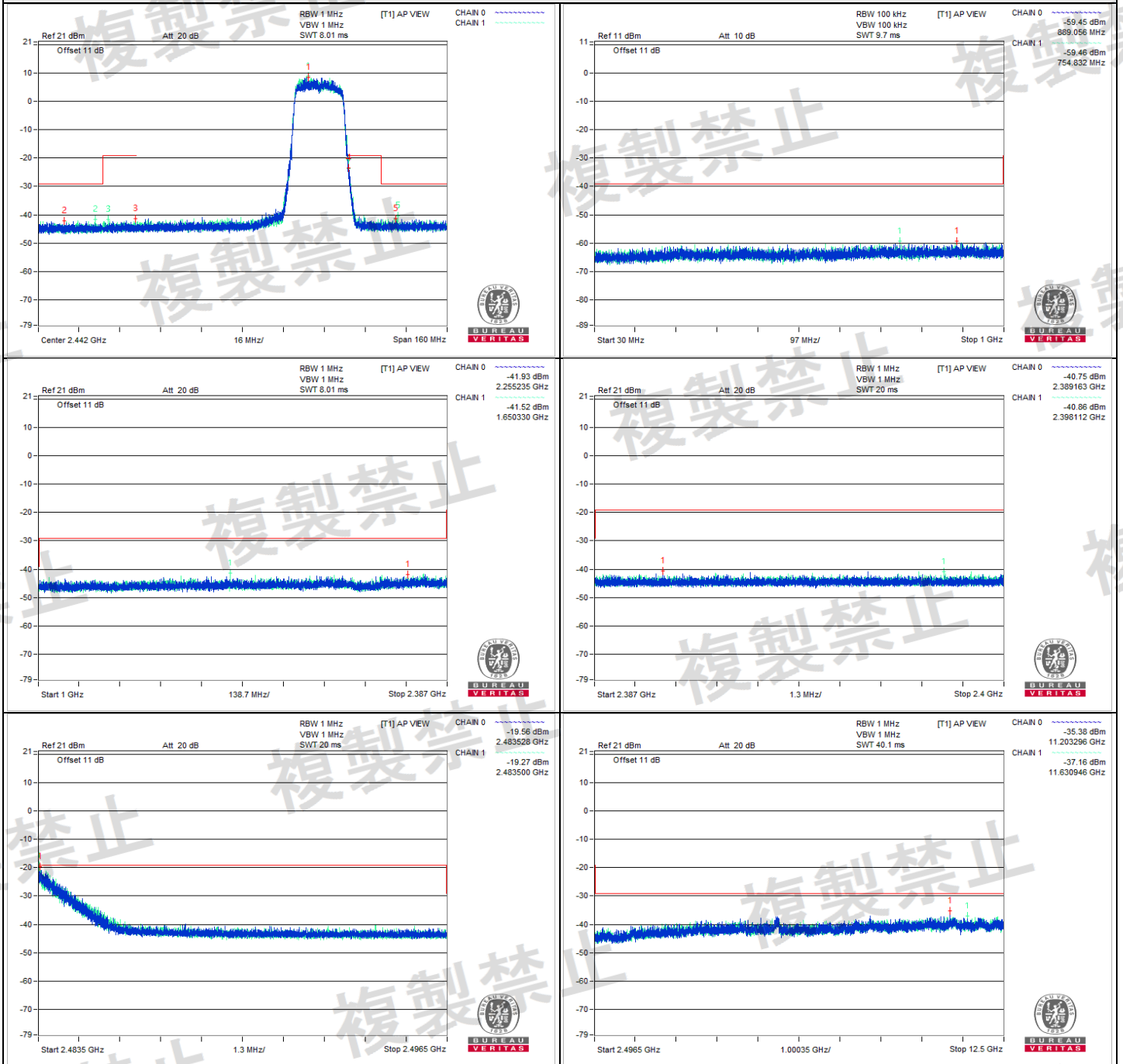
1	2483.500MHz	P = 0.056113 uW/MHz
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802.11ax (HE20) Graph





Vnormal



CH 13 (2472 MHz)

802.11ax (HE20) [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V_{normal}	30.0 to 1000.0	0.002398 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.141590 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	8.851768 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.167892 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.544540 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V_{normal}	30.0 to 1000.0	0.002204 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.131230 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.184090 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.190560 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.574156 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V_{normal}	30.0 to 1000.0	0.002270 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.140938 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.168280 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.117724 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.579468 uW/MHz	2.5 uW/MHz	PASS

802.11ax (HE40) Chain 0

TEST CHANNEL		CH 3 (2422 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	975.508	0.001016 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2260.436	0.073961 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.854	1.174898 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2495.463	0.092045 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11982.319	0.209411 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	783.811	0.001084 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1907.271	0.062373 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2391.636	0.073451 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2485.359	0.085114 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11305.832	0.208449 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 11 (2462 MHz)			
V _{normal}	30.0 to 1000.0	841.405	0.001012 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2299.446	0.059429 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2396.891	0.080724 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.547	1.492794 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11267.069	0.207014 uW/MHz	1.25 uW/MHz	PASS

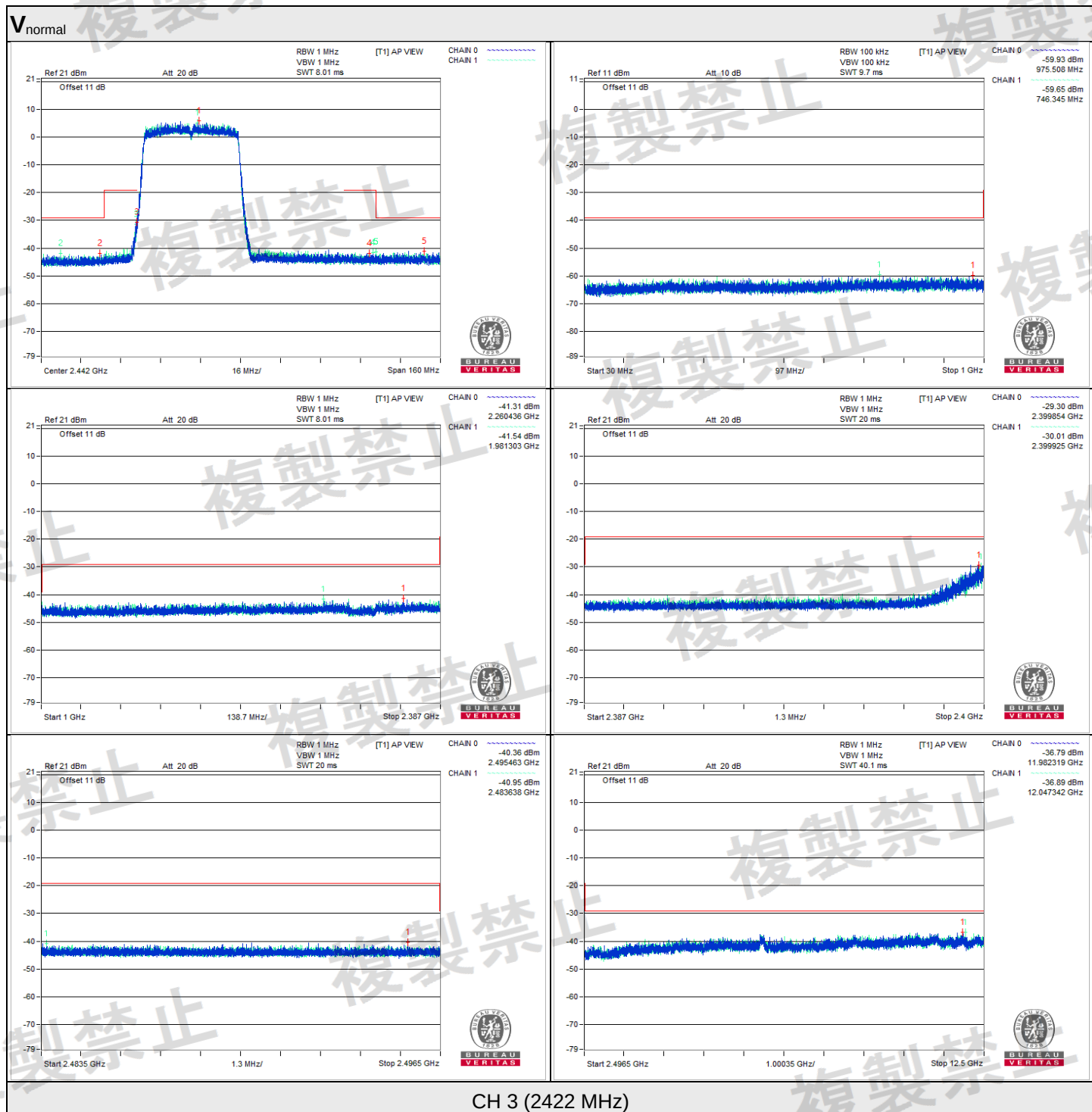
NOTE: 1. The spectrum plots are attached on the following pages.

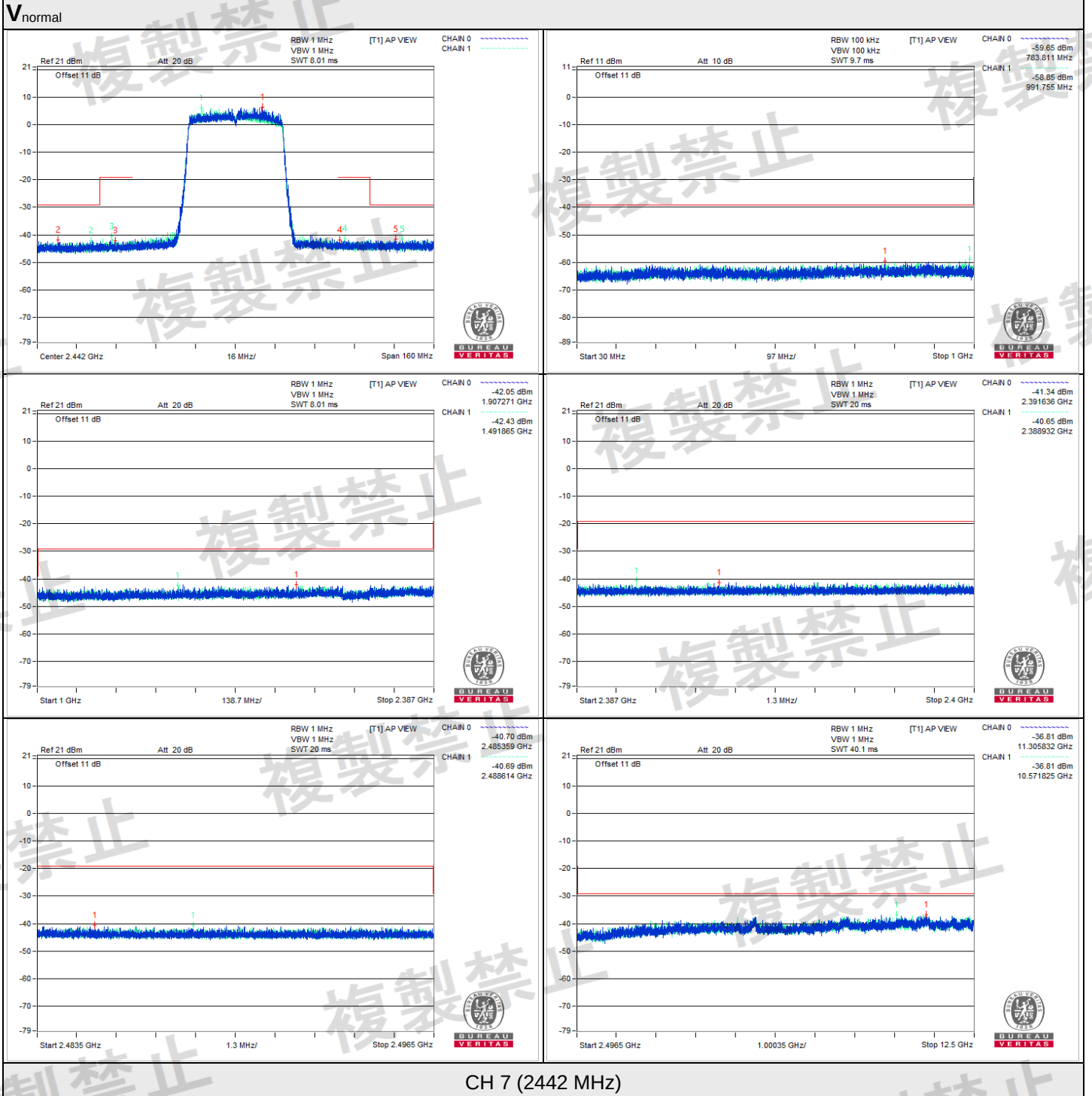
802.11ax (HE40) Chain 1

TEST CHANNEL		CH 3 (2422 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	746.345	0.001084 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1981.303	0.070146 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.925	0.9977 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.638	0.080353 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	12047.342	0.204644 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	991.755	0.001303 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1491.865	0.057148 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2388.932	0.086099 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2488.614	0.08531 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	10571.825	0.208449 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 11 (2462 MHz)			
V _{normal}	30.0 to 1000.0	829.401	0.001019 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2164.213	0.063387 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2397.246	0.077983 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.552	1.422329 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11272.070	0.234423 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

802.11ax (HE40) Graph

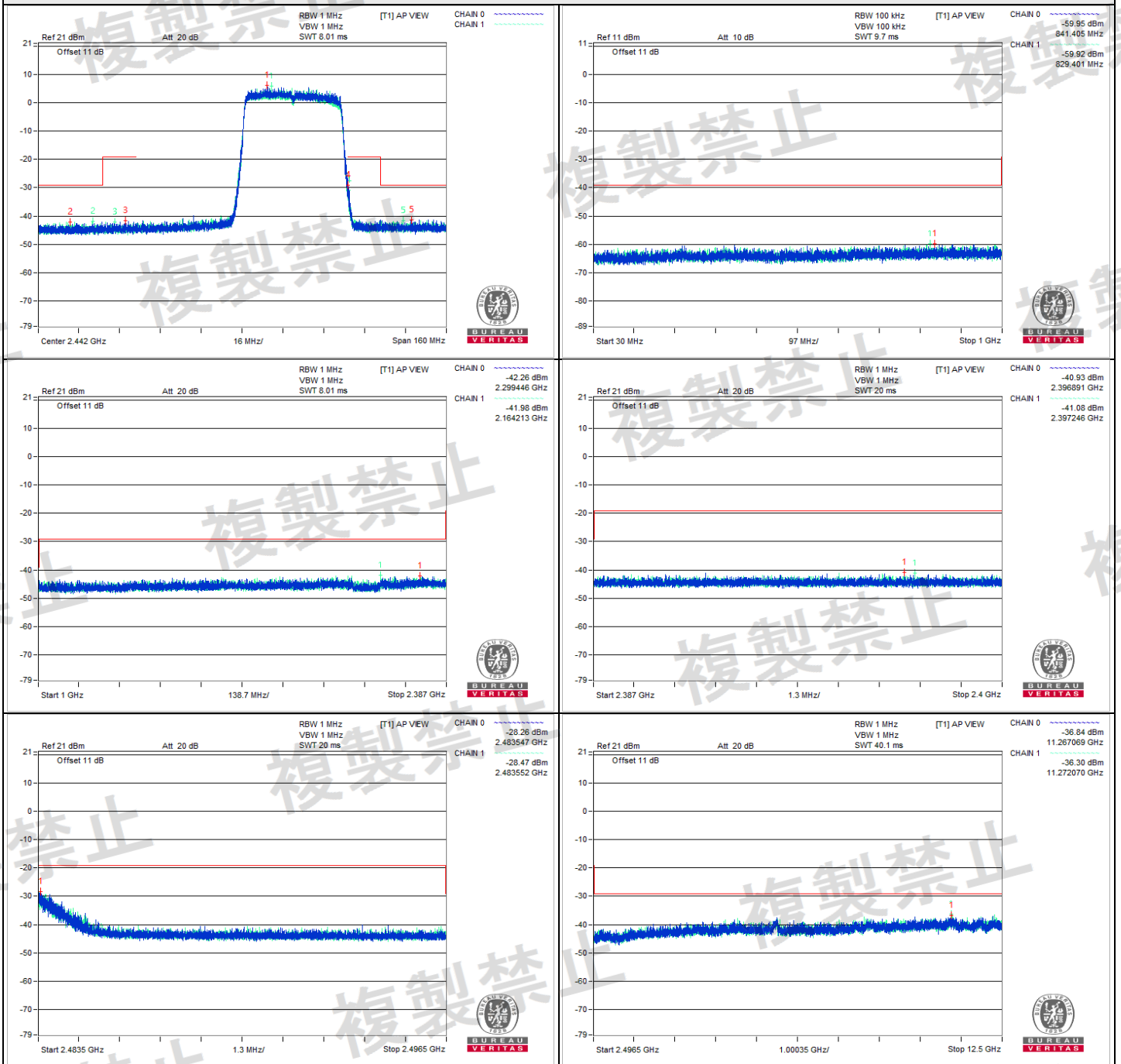






BUREAU
VERITAS

Vnormal



CH 11 (2462 MHz)

802.11ax (HE40) [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 3 (2422 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V_{normal}	30.0 to 1000.0	0.002168 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.147922 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2.349796 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.184090 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.418822 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V_{normal}	30.0 to 1000.0	0.002606 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.124746 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.172198 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.170620 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.416898 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 11 (2462 MHz)		
V_{normal}	30.0 to 1000.0	0.002038 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.126774 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.161448 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	2.985588 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.468846 uW/MHz	2.5 uW/MHz	PASS

802.11ax (HE20) 26-tone RU Chain 0

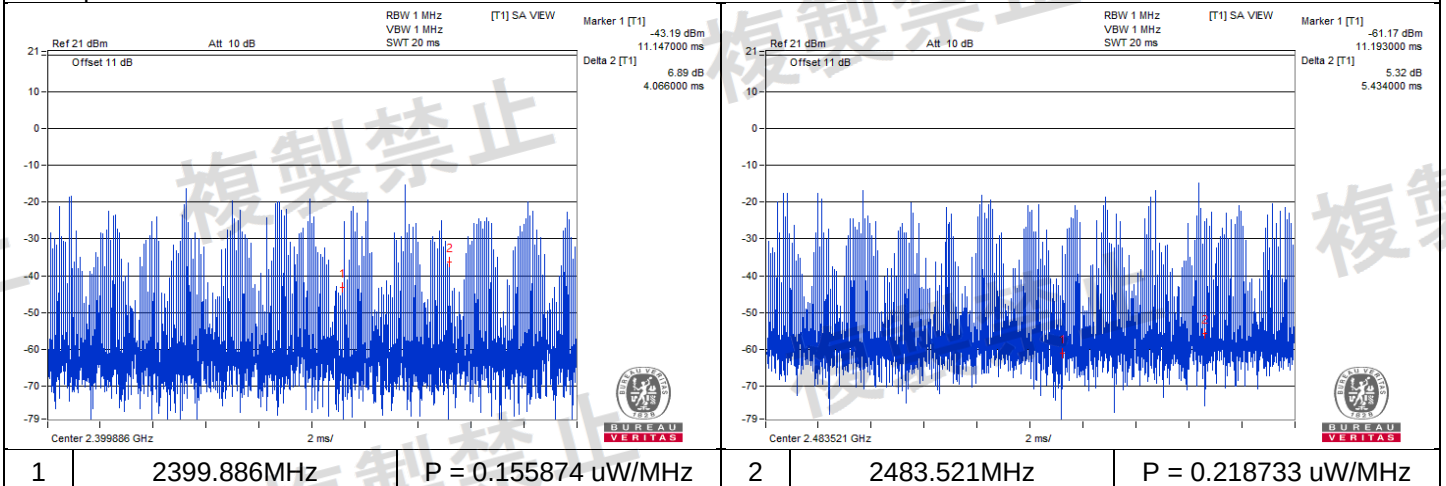
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	950.409	0.001089 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1953.216	0.062373 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.886	0.155874 uW/MHz	12.5 uW/MHz	PASS(1)
	2483.5 to 2496.5	2494.025	0.065766 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11414.620	0.194089 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	963.383	0.001045 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2310.368	0.060814 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2390.988	0.063096 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2489.355	0.101625 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	9507.703	0.142889 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	885.055	0.001016 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2286.789	0.053827 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.860	0.065464 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.521	0.218733 uW/MHz	12.5 uW/MHz	PASS(2)
	2496.5 to 12500.0	4297.130	0.164437 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.
2. (No.): The value was tested under Measuring Mode *Zero Span.



Measuring Mode *Zero Span

1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the “dBm” value into “uW” value.
3. It adds the all values and calculates a grand total. Define a grand total as “P”.
4. It divides “P” by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



802.11ax (HE20) 26-tone RU Chain 1

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	748.164	0.00123 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1854.912	0.057943 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.941	0.170801 uW/MHz	12.5 uW/MHz	PASS(1)
	2483.5 to 2496.5	2484.910	0.065766 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	12277.422	0.164816 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	853.651	0.001091 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2350.418	0.052845 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2392.008	0.066988 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2484.012	0.073114 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11245.811	0.170216 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	895.967	0.001112 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2343.483	0.052966 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2390.377	0.071285 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.536	0.270593 uW/MHz	12.5 uW/MHz	PASS(2)
	2496.5 to 12500.0	10870.680	0.174181 uW/MHz	1.25 uW/MHz	PASS

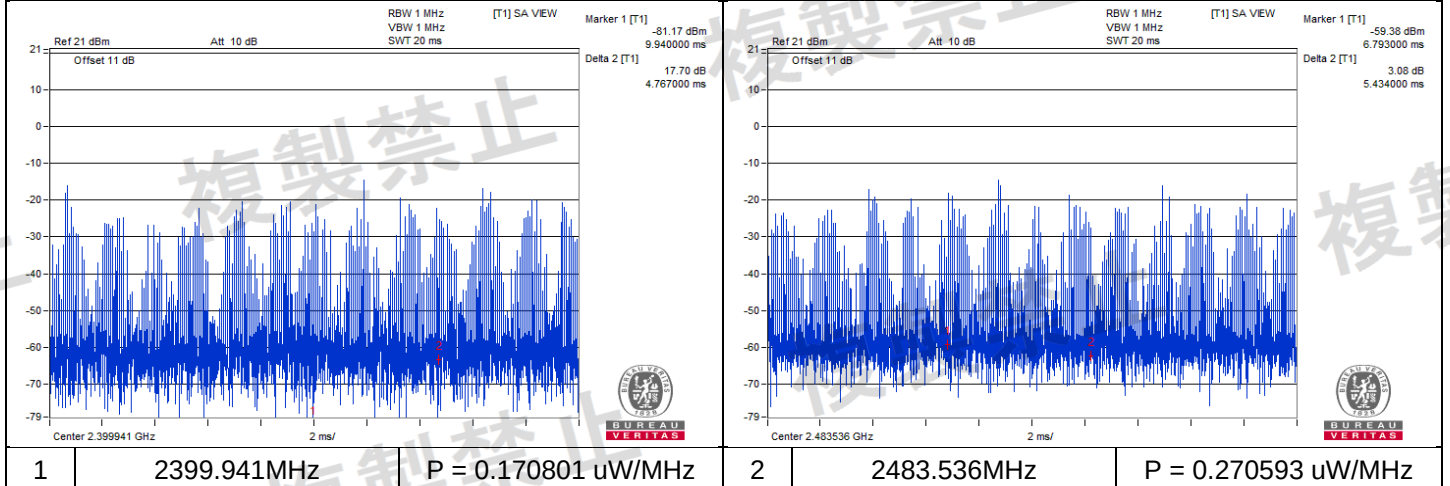
NOTE: 1. The spectrum plots are attached on the following pages.

2. (No.): The value was tested under Measuring Mode *Zero Span.

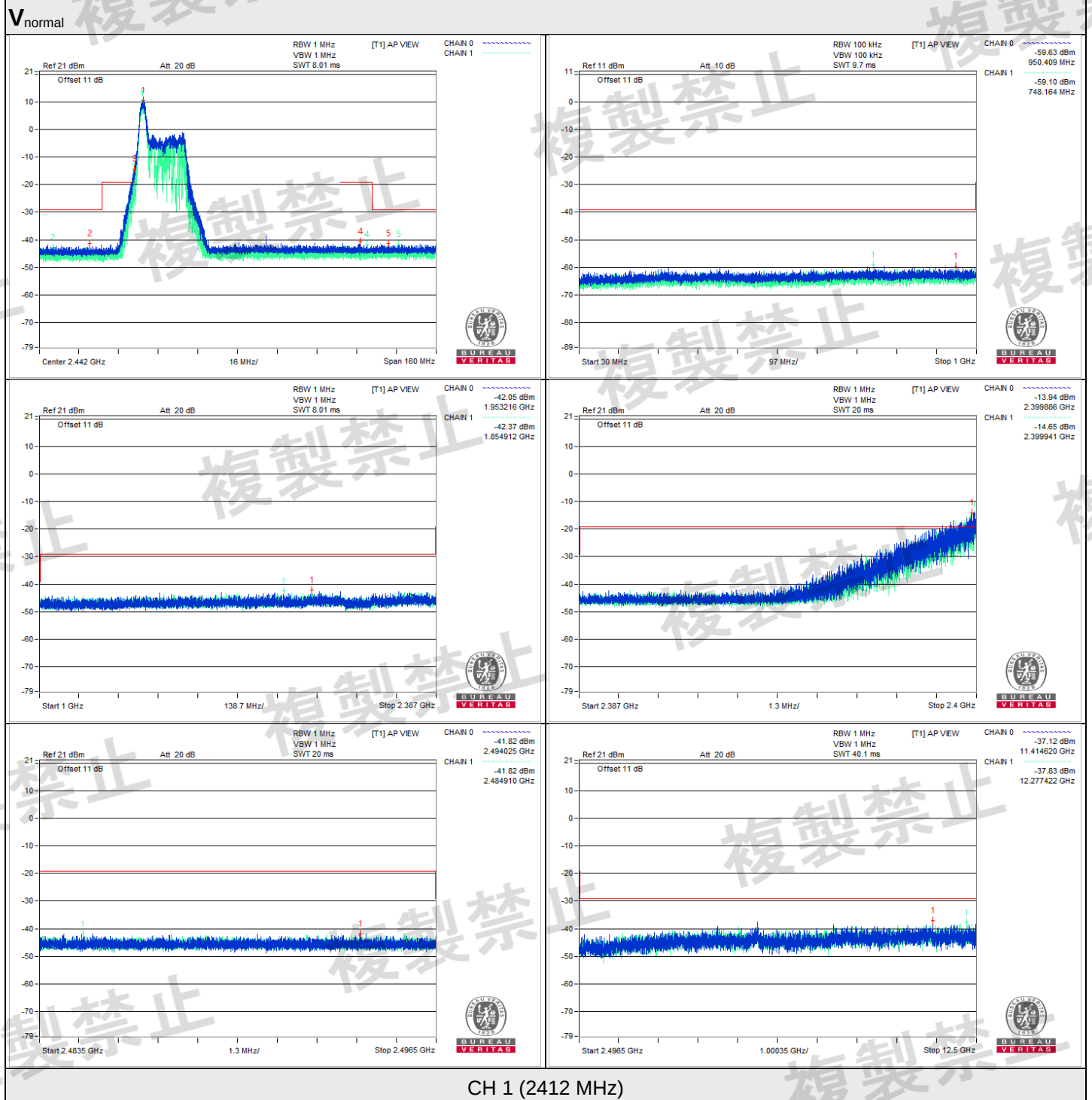


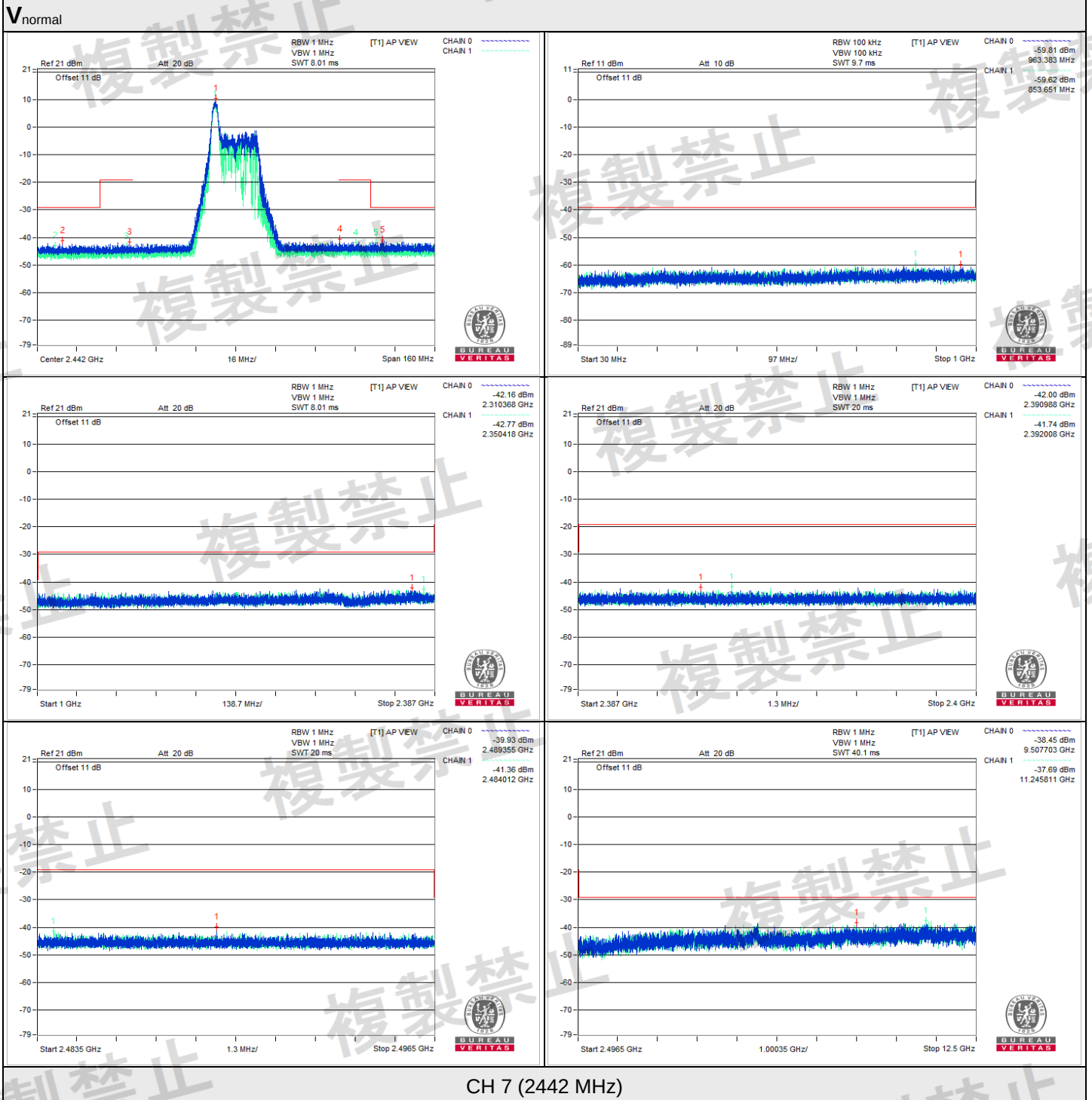
Measuring Mode *Zero Span

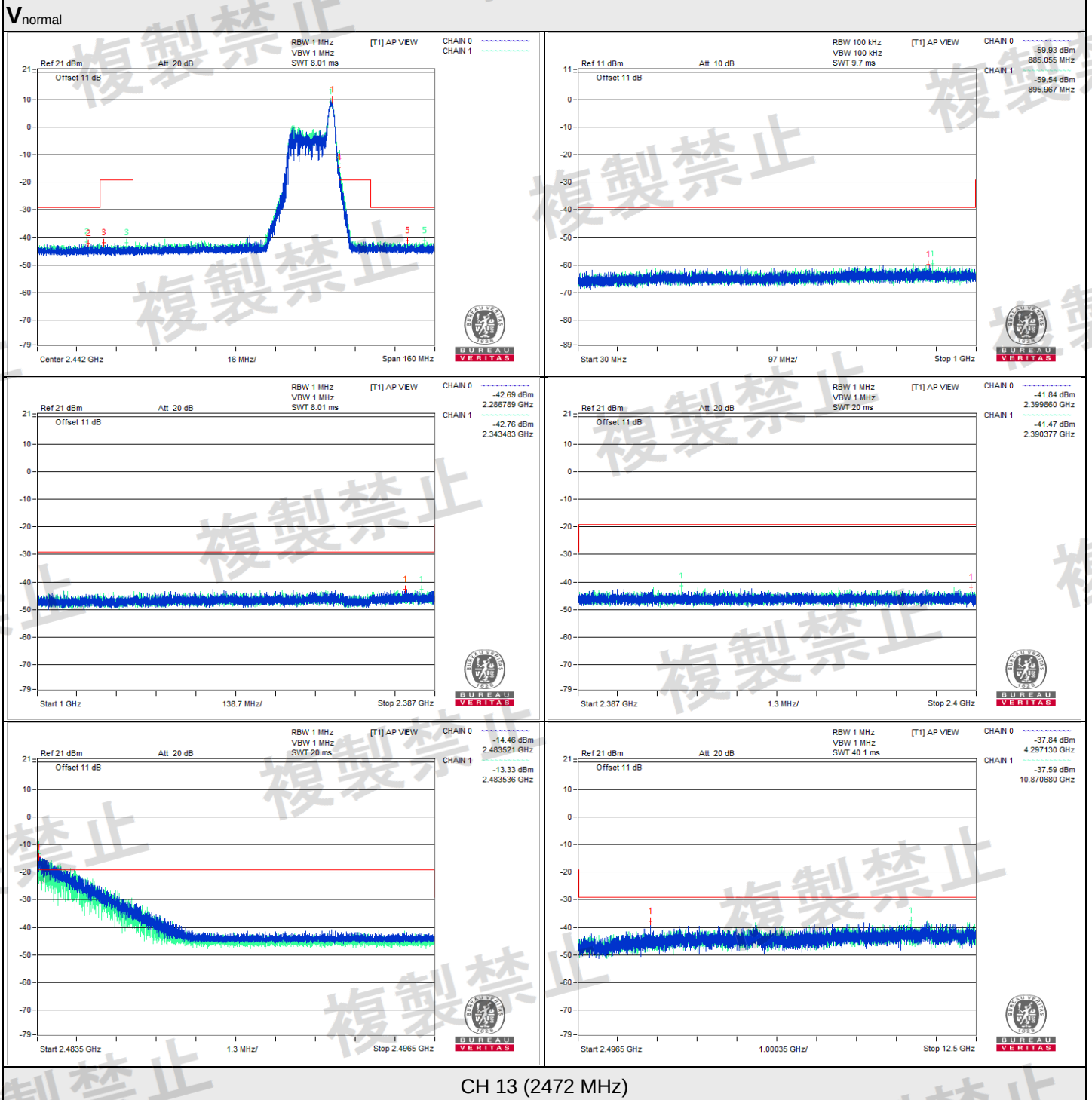
1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the "dBm" value into "uW" value.
3. It adds the all values and calculates a grand total. Define a grand total as "P".
4. It divides "P" by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



802.11ax (HE20) 26-tone RU Graph







802.11ax (HE20) 26-tone RU [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	0.002460 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.124746 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.341602 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.131532 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.388178 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V _{normal}	30.0 to 1000.0	0.002182 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.121628 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.133976 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.203250 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.340432 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V _{normal}	30.0 to 1000.0	0.002224 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.107654 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.142570 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.541186 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.348362 uW/MHz	2.5 uW/MHz	PASS

802.11ax (HE20) 52-tone RU Chain 0

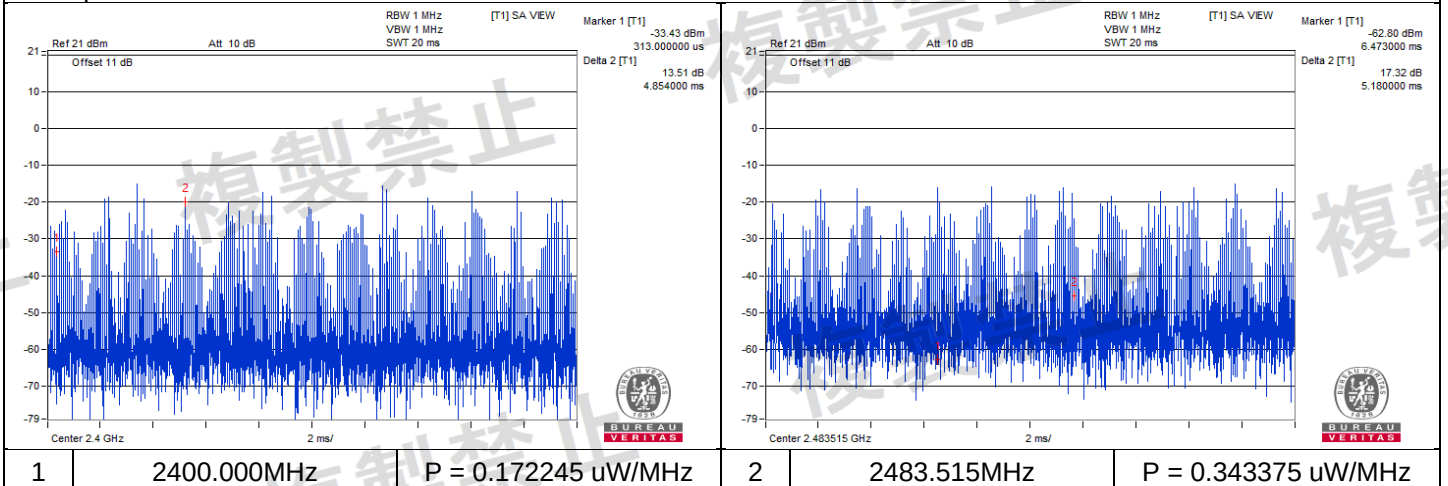
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	991.876	0.001052 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2248.473	0.056885 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2400.000	0.172245 uW/MHz	12.5 uW/MHz	PASS(1)
	2483.5 to 2496.5	2493.510	0.079068 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	6984.320	0.18281 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	766.109	0.000935 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2298.059	0.066681 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2389.735	0.05902 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2485.578	0.073114 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11304.582	0.229615 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	871.111	0.000914 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1987.371	0.060117 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2390.323	0.058614 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.515	0.343375 uW/MHz	12.5 uW/MHz	PASS(2)
	2496.5 to 12500.0	10788.151	0.160694 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.
2. (No.): The value was tested under Measuring Mode *Zero Span.



Measuring Mode *Zero Span

1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the “dBm” value into “uW” value.
3. It adds the all values and calculates a grand total. Define a grand total as “P”.
4. It divides “P” by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



802.11ax (HE20) 52-tone RU Chain 1

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	340.764	0.000977 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2340.015	0.058076 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.602	0.09346 uW/MHz	12.5 uW/MHz	PASS(1)
	2483.5 to 2496.5	2489.599	0.071614 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11320.837	0.191426 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	826.734	0.001028 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2312.275	0.064565 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2392.557	0.069183 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2491.943	0.069984 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11242.060	0.196789 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	721.125	0.000948 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2295.805	0.053211 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2397.832	0.05821 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.643	0.284772 uW/MHz	12.5 uW/MHz	PASS(2)
	2496.5 to 12500.0	6946.807	0.164437 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

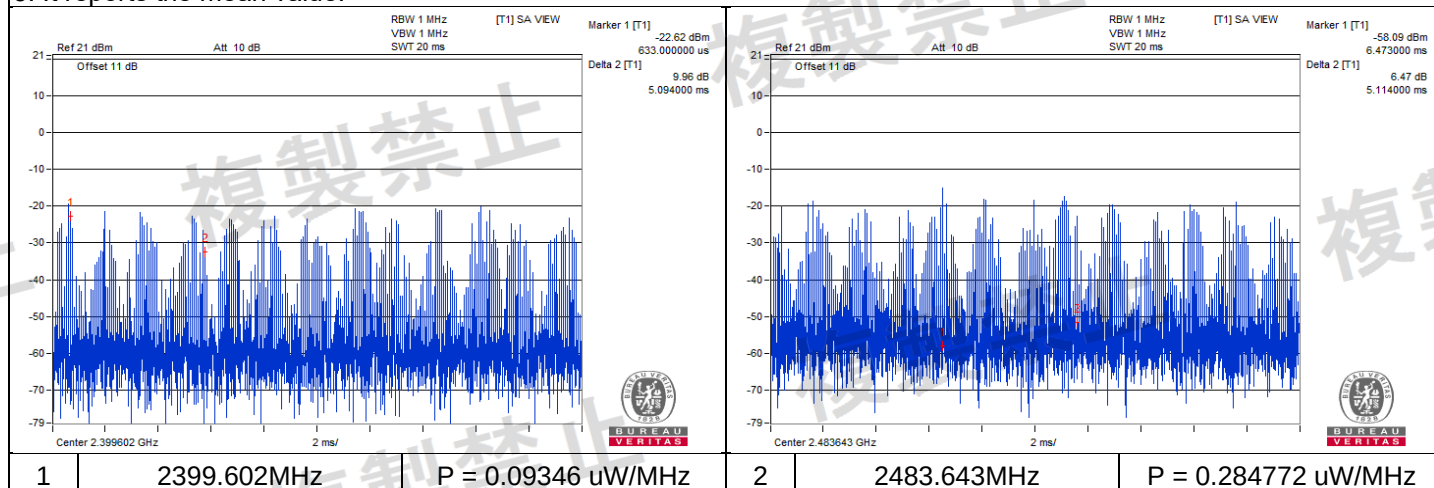
2. (No.): The value was tested under Measuring Mode *Zero Span.



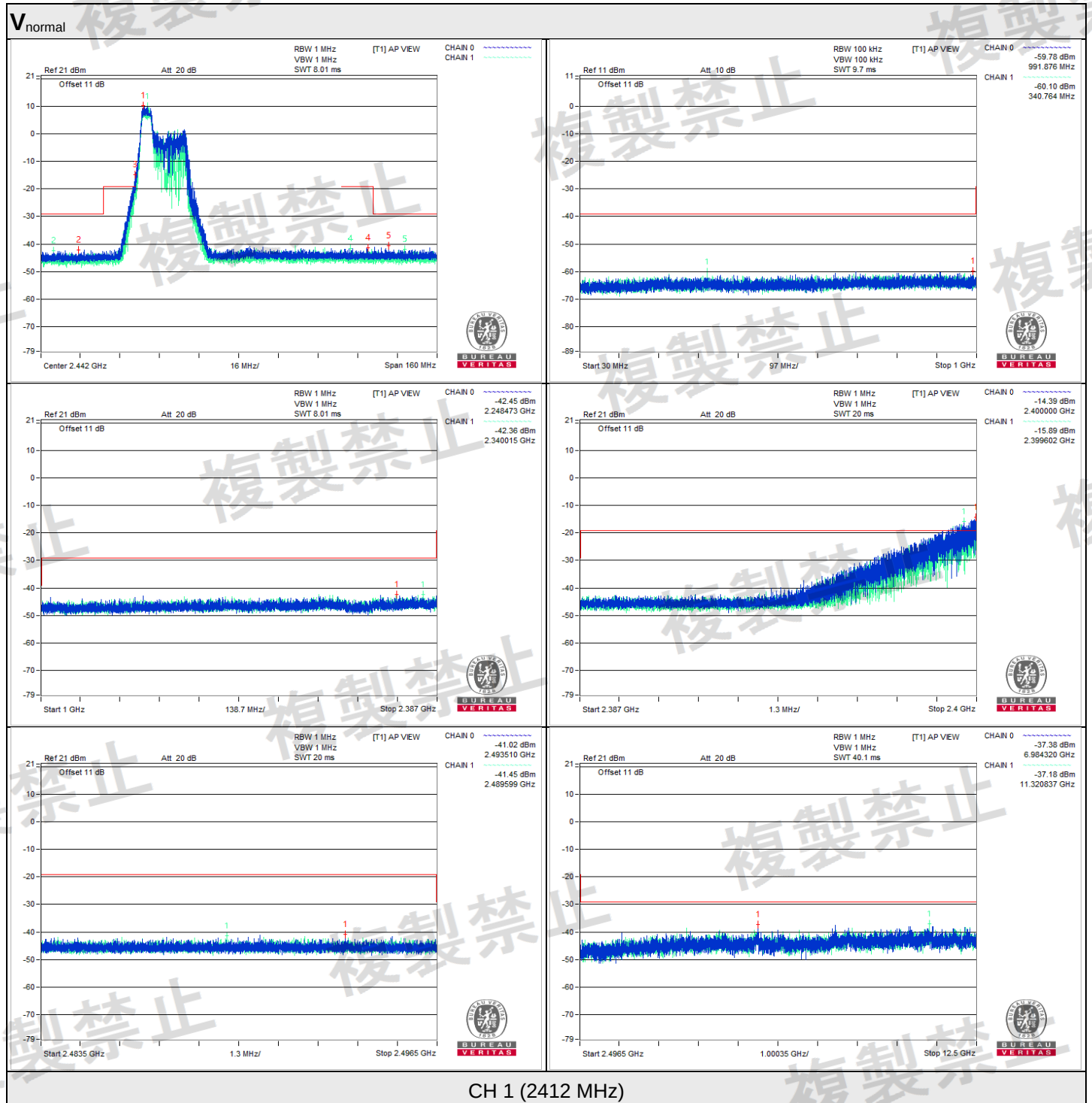
BUREAU
VERITAS

Measuring Mode *Zero Span

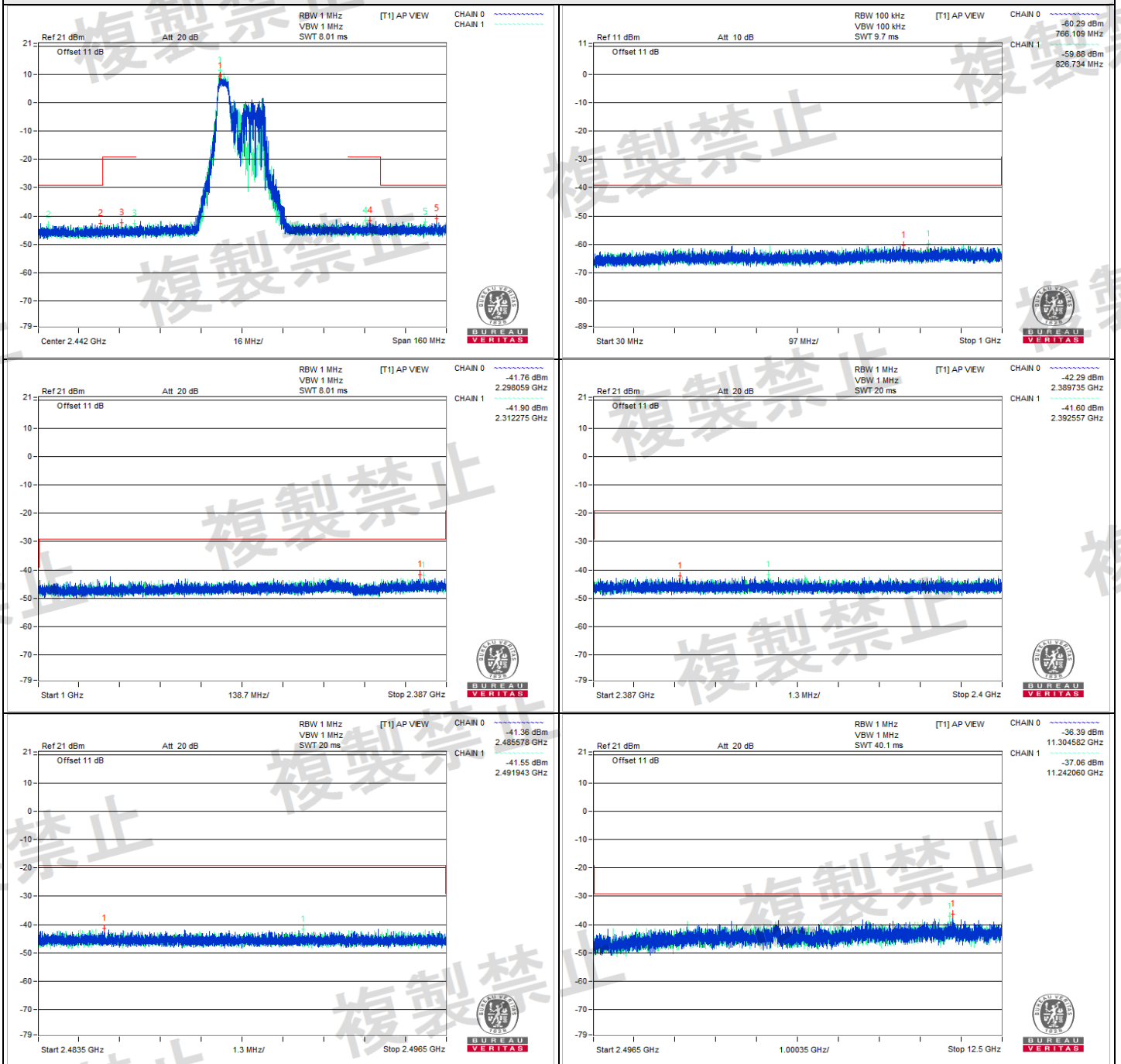
1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the "dBm" value into "uW" value.
3. It adds the all values and calculates a grand total. Define a grand total as "P".
4. It divides "P" by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



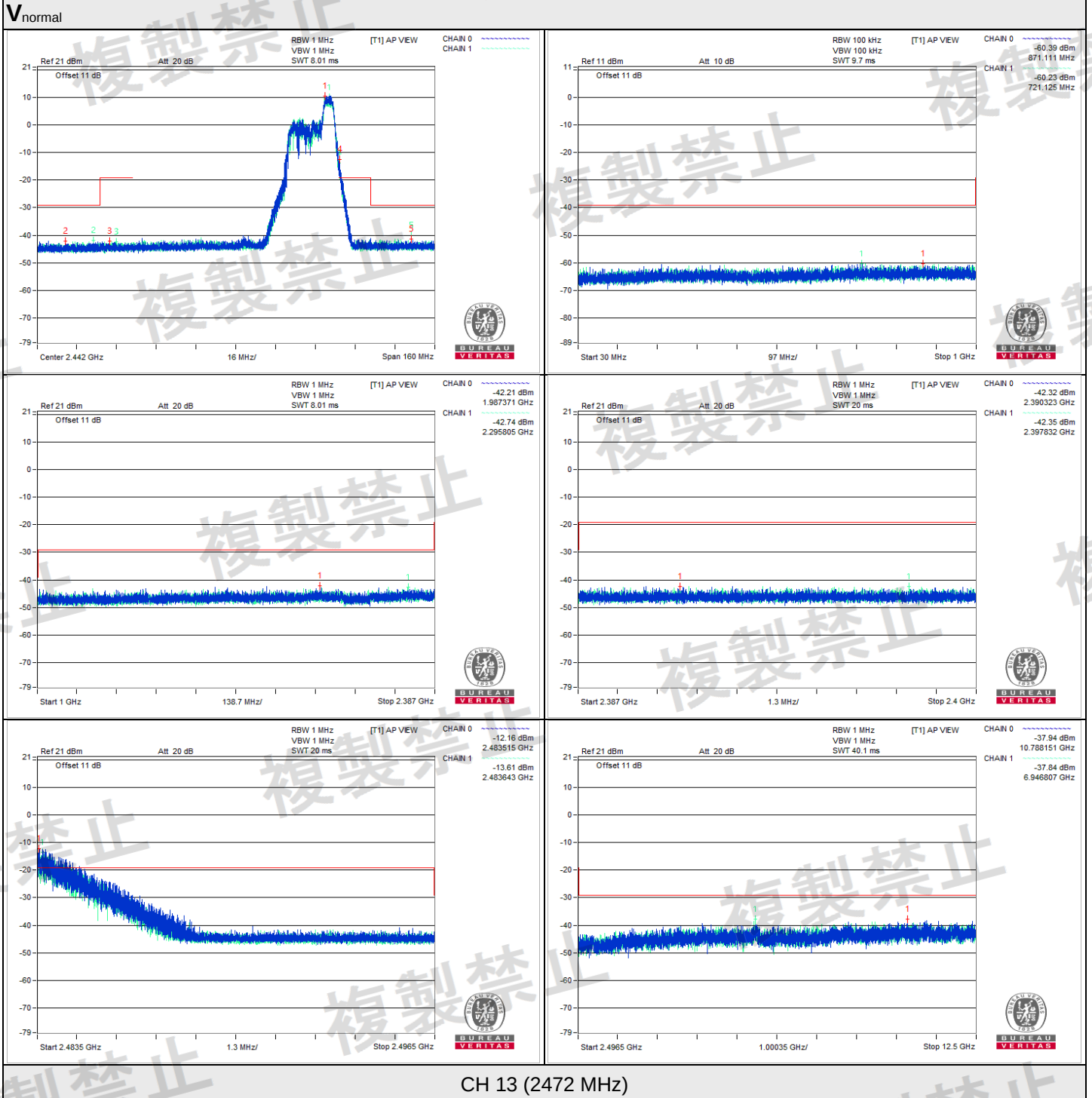
802.11ax (HE20) 52-tone RU Graph



Vnormal



CH 7 (2442 MHz)



802.11ax (HE20) 52-tone RU [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V_{normal}	30.0 to 1000.0	0.002104 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.116152 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.344490 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.158136 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.382852 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V_{normal}	30.0 to 1000.0	0.002056 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.133362 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.138366 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.146228 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.459230 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V_{normal}	30.0 to 1000.0	0.001896 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.120234 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.117228 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.686750 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.328874 uW/MHz	2.5 uW/MHz	PASS

802.11ax (HE20) 106-tone RU Chain 0

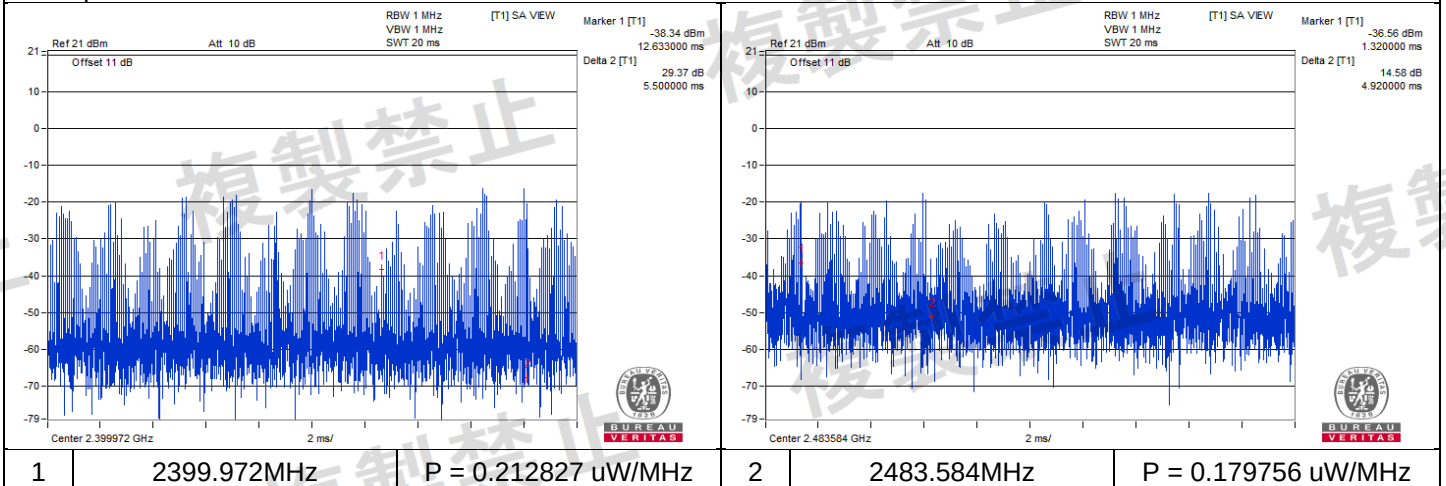
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	723.793	0.000982 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2245.526	0.059293 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.972	0.212827 uW/MHz	12.5 uW/MHz	PASS(1)
	2483.5 to 2496.5	2488.845	0.069823 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	6958.061	0.143549 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	886.268	0.001012 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2303.433	0.057148 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2392.736	0.056754 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2485.556	0.076033 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	12004.827	0.183231 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	377.866	0.000891 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2210.331	0.049204 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2395.305	0.059566 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.584	0.179756 uW/MHz	12.5 uW/MHz	PASS(2)
	2496.5 to 12500.0	10991.972	0.18281 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.
2. (No.): The value was tested under Measuring Mode *Zero Span.



Measuring Mode *Zero Span

1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the “dBm” value into “uW” value.
3. It adds the all values and calculates a grand total. Define a grand total as “P”.
4. It divides “P” by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



802.11ax (HE20) 106-tone RU Chain 1

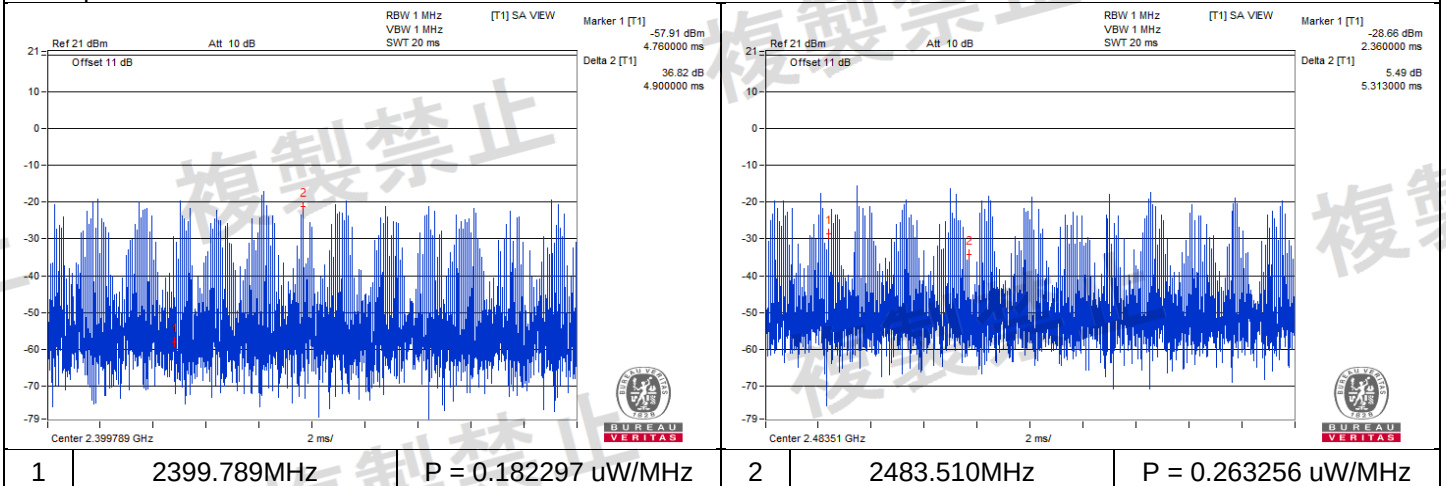
TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	765.745	0.001294 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	2267.545	0.058884 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2399.789	0.182297 uW/MHz	12.5 uW/MHz	PASS(1)
	2483.5 to 2496.5	2494.290	0.074817 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	10554.319	0.161436 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	892.936	0.000971 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1851.098	0.053951 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2392.185	0.070632 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2488.656	0.092897 uW/MHz	12.5 uW/MHz	PASS
	2496.5 to 12500.0	11345.846	0.157761 uW/MHz	1.25 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	900.211	0.001023 uW/100kHz	0.125 uW/100kHz	PASS
	1000.0 to 2387.0	1932.584	0.055081 uW/MHz	1.25 uW/MHz	PASS
	2387.0 to 2400.0	2389.488	0.061376 uW/MHz	12.5 uW/MHz	PASS
	2483.5 to 2496.5	2483.510	0.263256 uW/MHz	12.5 uW/MHz	PASS(2)
	2496.5 to 12500.0	11222.053	0.171791 uW/MHz	1.25 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.
2. (No.): The value was tested under Measuring Mode *Zero Span.

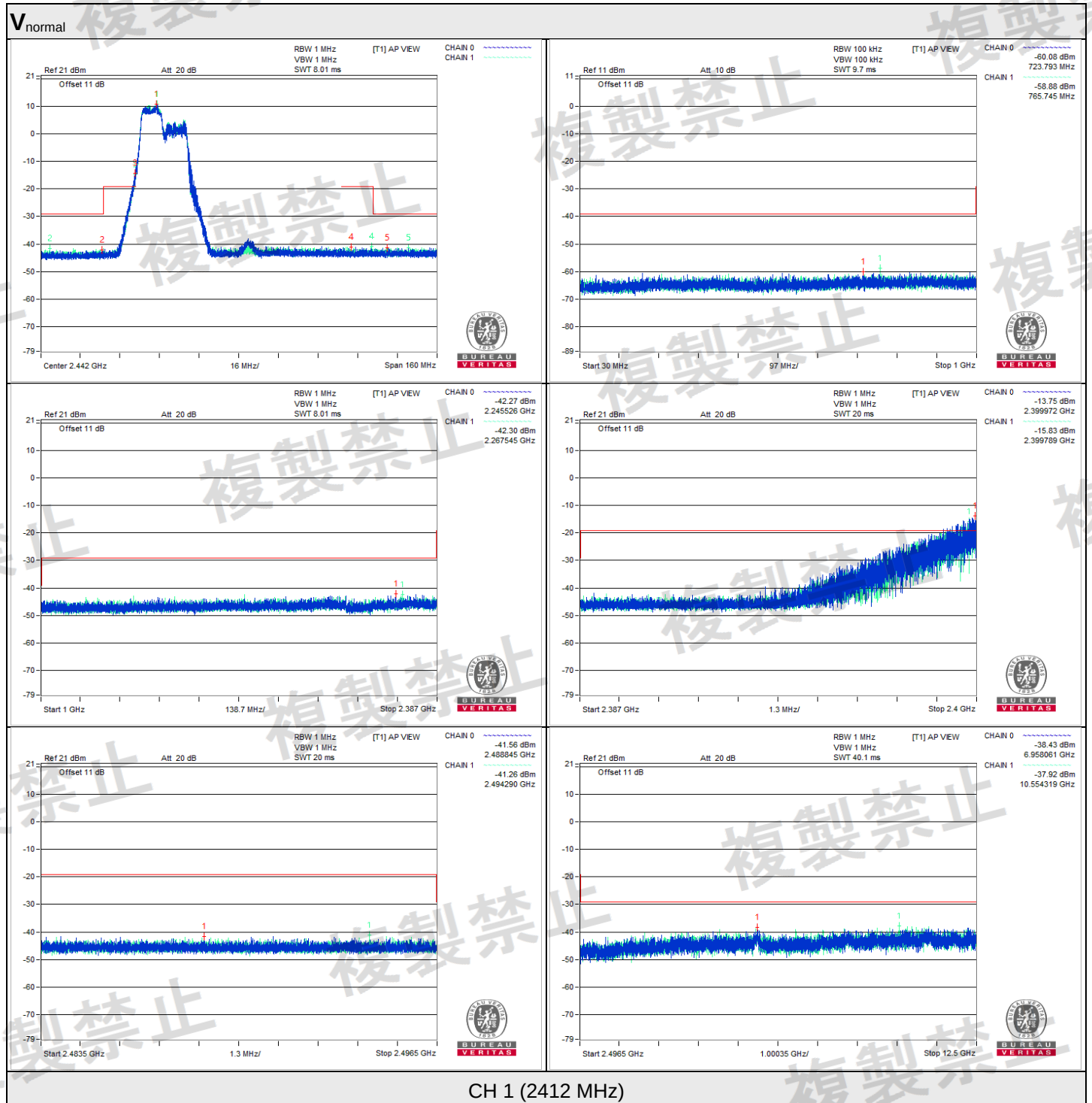


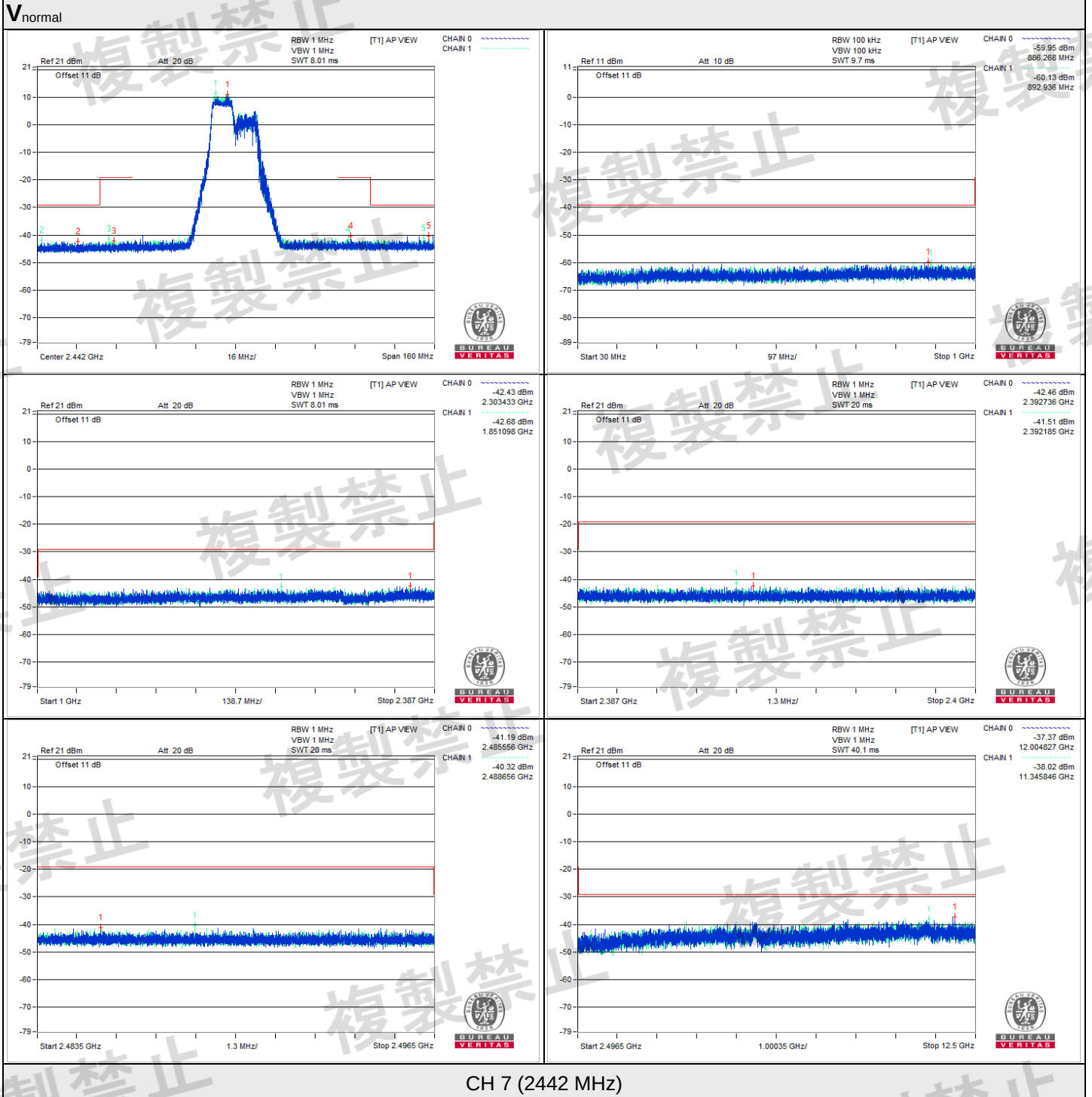
Measuring Mode *Zero Span

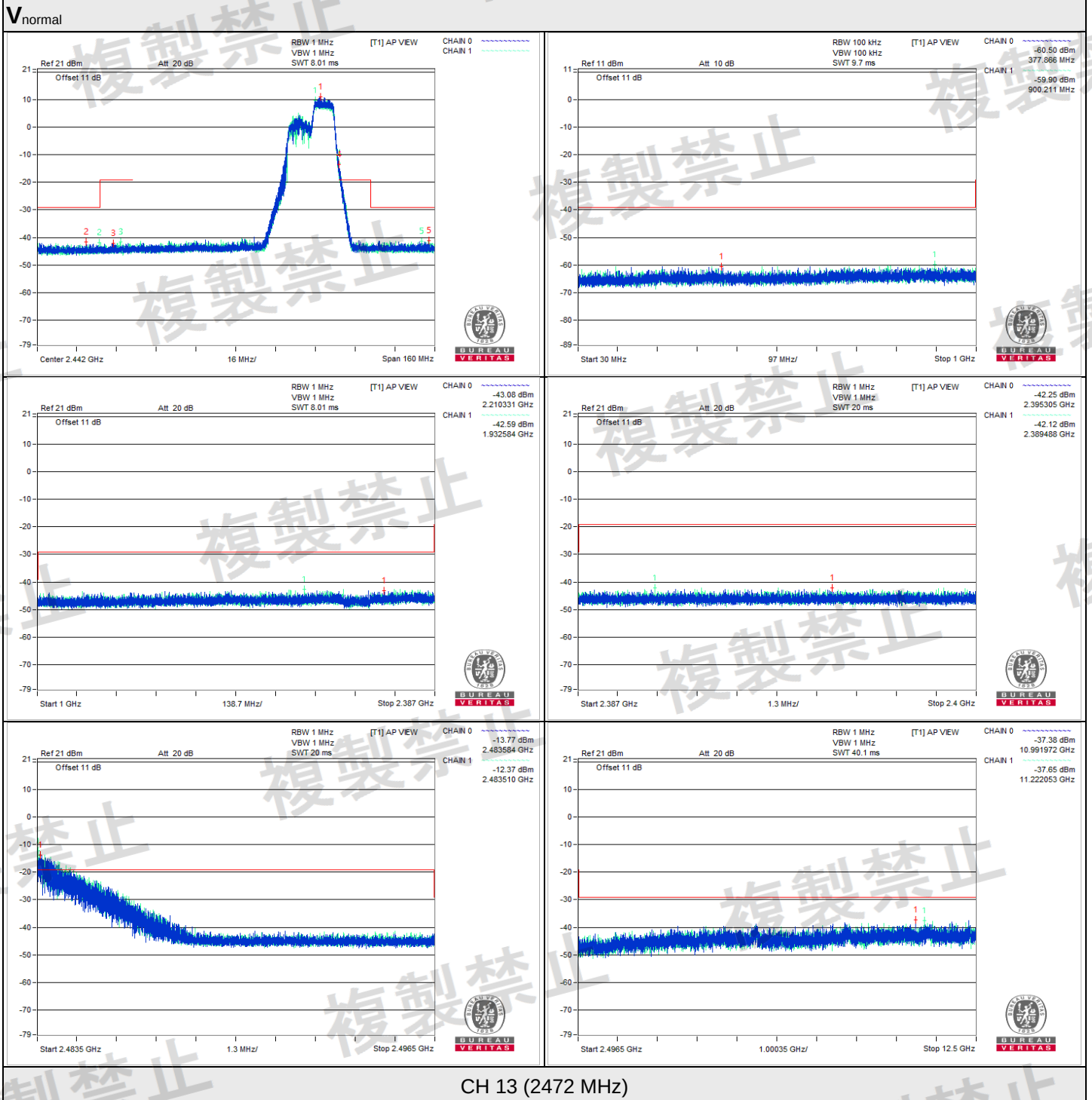
1. Set the spectrum analyzer as below and it takes in a value of all data point.
2. Regarding the all data value, it transforms the “dBm” value into “uW” value.
3. It adds the all values and calculates a grand total. Define a grand total as “P”.
4. It divides “P” by sample data point (>400) and calculates the mean value.
5. It reports the mean value.



802.11ax (HE20) 106-tone RU Graph







802.11ax (HE20) 106-tone RU [Worst result] x [Number of antenna ports]

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V _{normal}	30.0 to 1000.0	0.002588 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.118586 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.425654 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.149634 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.322872 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V _{normal}	30.0 to 1000.0	0.002024 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.114296 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.141264 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.185794 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.366462 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V _{normal}	30.0 to 1000.0	0.002046 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	0.110162 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	0.122752 uW/MHz	25 uW/MHz	PASS
	2483.5 to 2496.5	0.526512 uW/MHz	25 uW/MHz	PASS
	2496.5 to 12500.0	0.365620 uW/MHz	2.5 uW/MHz	PASS

7.4 Spurious Emissions of Receiver

Environmental Conditions:	25°C, 76% RH	Tested By:	Dalen Dai
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20 MHz System Chain 0

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE(nW)	LIMIT (nW)	RESULT
V _{normal}	30.0 to 1000.0	694.207	0.093756	2	PASS
	1000.0 to 12500.0	11200.500	2.202926	10	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	875.840	0.094406	2	PASS
	1000.0 to 12500.0	11302.562	2.570396	10	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	669.230	0.096828	2	PASS
	1000.0 to 12500.0	10297.750	2.301442	10	PASS

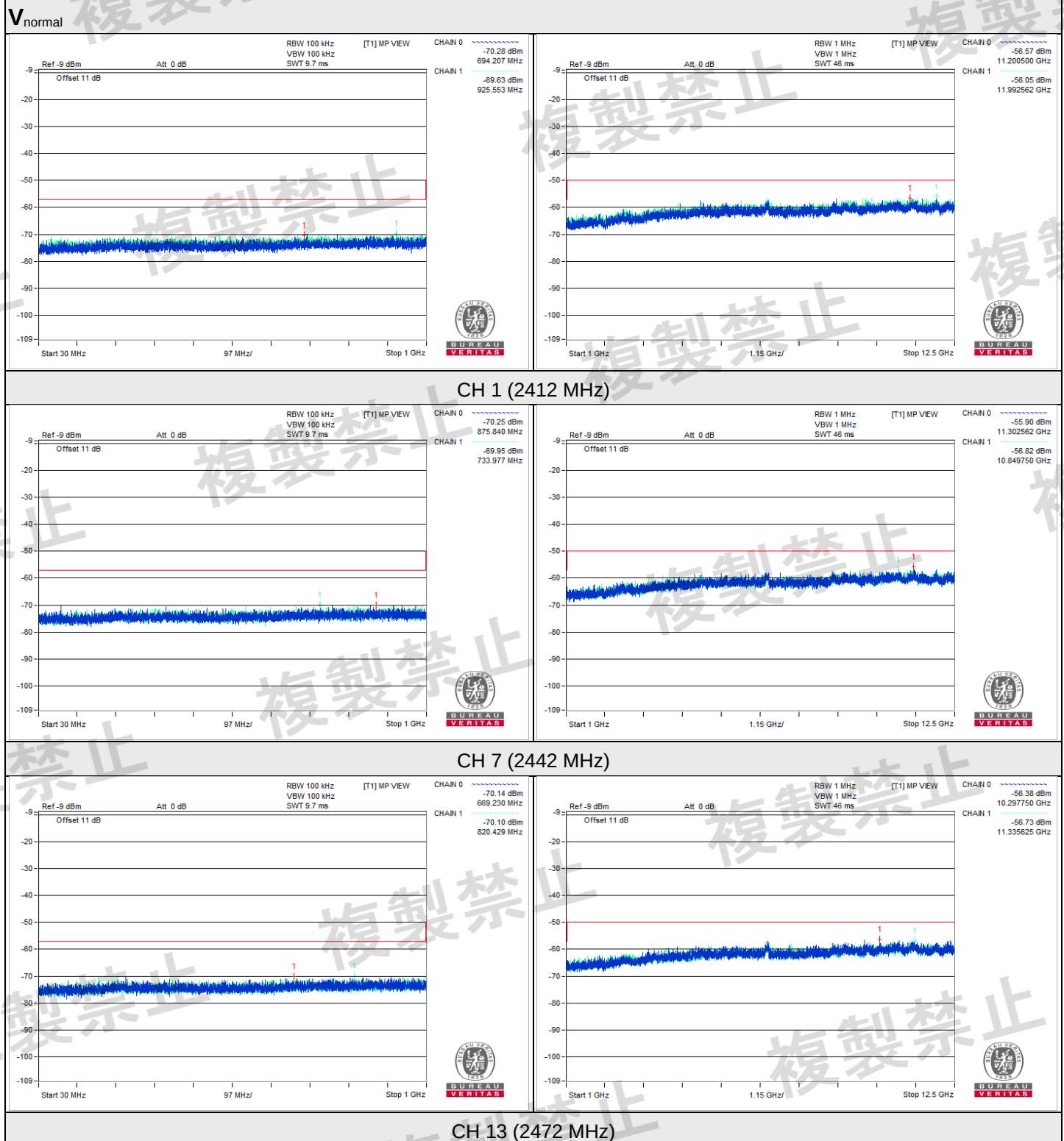
NOTE: 1. The spectrum plots are attached on the following pages.

20 MHz System Chain 1

TEST CHANNEL		CH 1 (2412 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE(nW)	LIMIT (nW)	RESULT
V _{normal}	30.0 to 1000.0	925.553	0.108893	2	PASS
	1000.0 to 12500.0	11992.562	2.483133	10	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	733.977	0.101158	2	PASS
	1000.0 to 12500.0	10849.750	2.079697	10	PASS
TEST CHANNEL		CH 13 (2472 MHz)			
V _{normal}	30.0 to 1000.0	820.429	0.097724	2	PASS
	1000.0 to 12500.0	11335.625	2.123244	10	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

20 MHz System Graph



20 MHz System Sum of each Chain

TEST CHANNEL		CH 1 (2412 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE(nW)	LIMIT (nW)	RESULT
V _{normal}	30.0 to 1000.0	0.202649	4	PASS
	1000.0 to 12500.0	4.686059	20	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V _{normal}	30.0 to 1000.0	0.195564	4	PASS
	1000.0 to 12500.0	4.650093	20	PASS
TEST CHANNEL		CH 13 (2472 MHz)		
V _{normal}	30.0 to 1000.0	0.194552	4	PASS
	1000.0 to 12500.0	4.424686	20	PASS

40 MHz System Chain 0

TEST CHANNEL		CH 3 (2422 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE(nW)	LIMIT (nW)	RESULT
V _{normal}	30.0 to 1000.0	913.913	0.105925	2	PASS
	1000.0 to 12500.0	10792.250	2.037042	10	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	413.150	0.10666	2	PASS
	1000.0 to 12500.0	11975.312	2.355049	10	PASS
TEST CHANNEL		CH 11 (2462 MHz)			
V _{normal}	30.0 to 1000.0	681.597	0.090365	2	PASS
	1000.0 to 12500.0	10529.187	2.673006	10	PASS

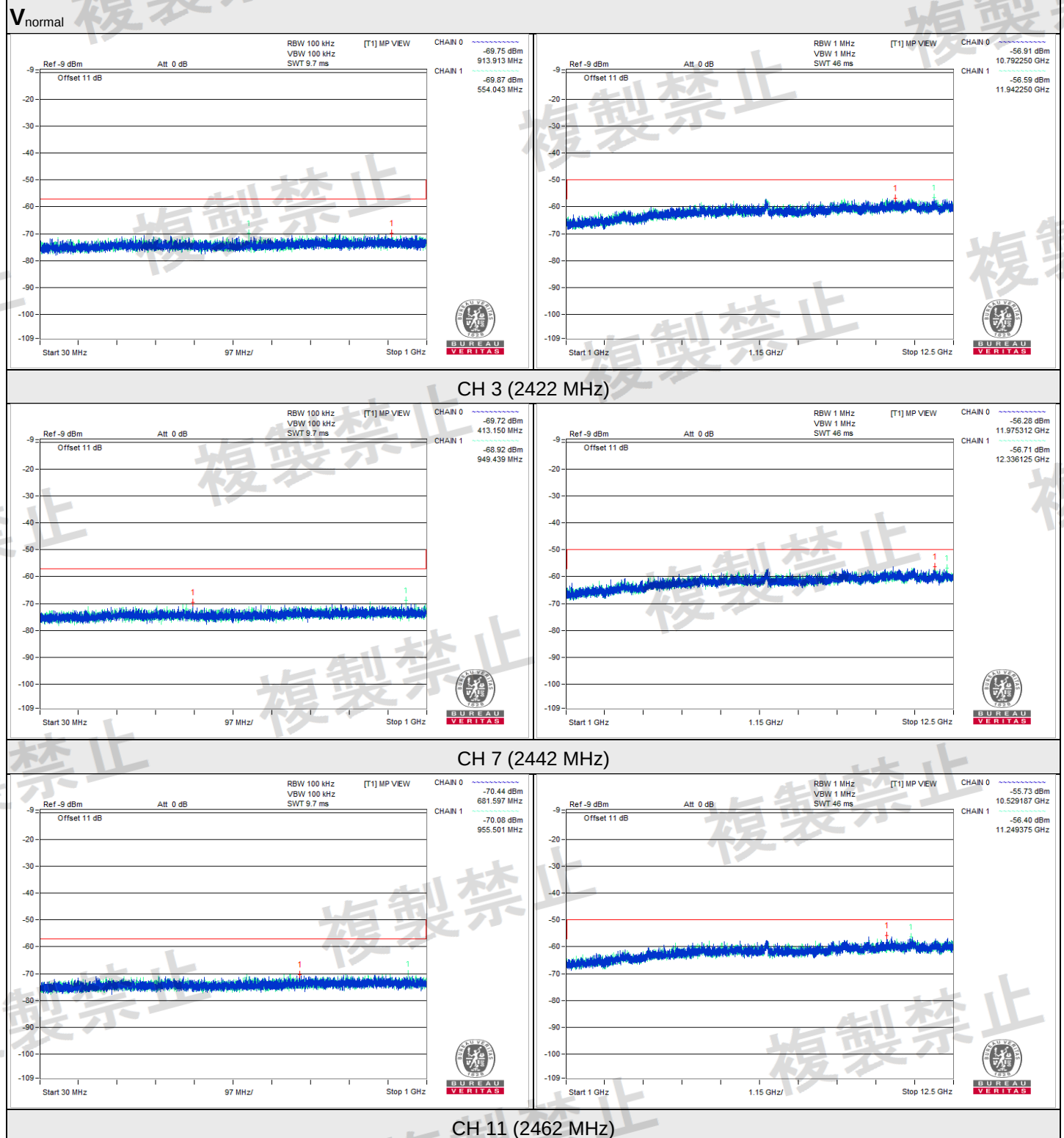
NOTE: 1. The spectrum plots are attached on the following pages.

40 MHz System Chain 1

TEST CHANNEL		CH 3 (2422 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE(nW)	LIMIT (nW)	RESULT
V _{normal}	30.0 to 1000.0	554.043	0.103039	2	PASS
	1000.0 to 12500.0	11942.250	2.192805	10	PASS
TEST CHANNEL		CH 7 (2442 MHz)			
V _{normal}	30.0 to 1000.0	949.439	0.128233	2	PASS
	1000.0 to 12500.0	12336.125	2.133045	10	PASS
TEST CHANNEL		CH 11 (2462 MHz)			
V _{normal}	30.0 to 1000.0	955.501	0.098175	2	PASS
	1000.0 to 12500.0	11249.375	2.290868	10	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

40 MHz System Graph



40 MHz System Sum of each Chain

TEST CHANNEL		CH 3 (2422 MHz)		
TEST CONDITION	FREQUENCY RANGE(MHz)	MEASUREMENT VALUE(nW)	LIMIT (nW)	RESULT
V _{normal}	30.0 to 1000.0	0.208964	4	PASS
	1000.0 to 12500.0	4.229847	20	PASS
TEST CHANNEL		CH 7 (2442 MHz)		
V _{normal}	30.0 to 1000.0	0.234893	4	PASS
	1000.0 to 12500.0	4.488094	20	PASS
TEST CHANNEL		CH 11 (2462 MHz)		
V _{normal}	30.0 to 1000.0	0.188540	4	PASS
	1000.0 to 12500.0	4.963874	20	PASS

7.5 Antenna Power

Environmental Conditions:	25°C, 76% RH	Tested By:	Dalen Dai
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802.11b

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	1	2412	0.896	0.798	1.694	6.25
	7	2442	0.867	0.784	1.651	6.092
	13	2472	0.844	0.764	1.608	5.933
Maximum Limit (mW/MHz):					10	-
Rated Power (mW/MHz):					2	-
Maximum Tolerance of Antenna Power (mW/MHz):					2.4	-
Maximum EIRP Limit (mW/MHz):					-	16.368

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a "calculated" value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

802.11g

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	1	2412	0.675	0.659	1.334	4.922
	7	2442	0.681	0.675	1.356	5.003
	13	2472	0.670	0.644	1.314	4.848
Maximum Limit (mW/MHz):					10	-
Rated Power (mW/MHz):					2	-
Maximum Tolerance of Antenna Power (mW/MHz):					2.4	-
Maximum EIRP Limit (mW/MHz):					-	16.368

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a "calculated" value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

VHT20

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	1	2412	0.620	0.574	1.194	4.406
	7	2442	0.659	0.601	1.26	4.649
	13	2472	0.584	0.573	1.157	4.269
Maximum Limit (mW/MHz):					10	-
Rated Power (mW/MHz):					2	-
Maximum Tolerance of Antenna Power (mW/MHz):					2.4	-
Maximum EIRP Limit (mW/MHz):					-	16.368

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a "calculated" value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

VHT40

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	3	2422	0.303	0.289	0.592	2.184
	7	2442	0.308	0.316	0.624	2.302
	11	2462	0.308	0.303	0.611	2.254
Maximum Limit (mW/MHz):					5	-
Rated Power (mW/MHz):					1	-
Maximum Tolerance of Antenna Power (mW/MHz):					1.2	-
Maximum EIRP Limit (mW/MHz):					-	8.184

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a "calculated" value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

802.11ax (HE20)

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	1	2412	0.561	0.573	1.134	4.184
	7	2442	0.612	0.566	1.178	4.347
	13	2472	0.559	0.581	1.14	4.206
Maximum Limit (mW/MHz):					10	-
Rated Power (mW/MHz):					2	-
Maximum Tolerance of Antenna Power (mW/MHz):					2.4	-
Maximum EIRP Limit (mW/MHz):					-	16.368

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a "calculated" value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

802.11ax (HE40)

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	3	2422	0.297	0.283	0.58	2.14
	7	2442	0.304	0.292	0.596	2.199
	11	2462	0.309	0.298	0.607	2.24
Maximum Limit (mW/MHz):					5	-
Rated Power (mW/MHz):					1	-
Maximum Tolerance of Antenna Power (mW/MHz):					1.2	-
Maximum EIRP Limit (mW/MHz):					-	8.184

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a "calculated" value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

802.11ax (HE20) 26-tone RU

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	1	2412	1.280	1.236	2.516	9.283
	7	2442	1.239	1.251	2.49	9.188
	13	2472	1.292	1.189	2.481	9.154
Maximum Limit (mW/MHz):					10	-
Rated Power (mW/MHz):					3	-
Maximum Tolerance of Antenna Power (mW/MHz):					3.6	-
Maximum EIRP Limit (mW/MHz):					-	16.368

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a “calculated” value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

802.11ax (HE20) 52-tone RU

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	1	2412	1.175	1.194	2.369	8.741
	7	2442	1.125	1.390	2.515	9.28
	13	2472	1.203	1.159	2.362	8.715
Maximum Limit (mW/MHz):					10	-
Rated Power (mW/MHz):					3	-
Maximum Tolerance of Antenna Power (mW/MHz):					3.6	-
Maximum EIRP Limit (mW/MHz):					-	16.368

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a “calculated” value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

802.11ax (HE20) 106-tone RU

Voltage (Vdc) (System)	Channel Number	Frequency (MHz)	Conducted RF Output Power Density (mW/MHz)			Radiated RF Output Power Density (mW/MHz)
			Chain 0	Chain 1	Total Power Density	
3.9	1	2412	1.094	1.127	2.221	8.195
	7	2442	0.991	1.156	2.147	7.922
	13	2472	1.138	1.031	2.169	8.003
Maximum Limit (mW/MHz):					10	-
Rated Power (mW/MHz):					3	-
Maximum Tolerance of Antenna Power (mW/MHz):					3.6	-
Maximum EIRP Limit (mW/MHz):					-	16.368

Notes:

1. Antenna gain is 5.67 dBi.
2. The radiated RF output power density is a “calculated” value derived from the conducted value.
3. Formula: Radiated RF output power density = Conducted RF output power density + Antenna gain

7.6 Number of Carriers within 1 MHz Bandwidth in OFDM

Environmental Conditions:	25°C, 60% RH	Tested By:	Waydi Tuan
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About OFDM Technical, one OFDM Channel will have 52 sub-carriers. At present, we observe this product via the spectrum, and we know that there are 3 carriers in 1 MHz bandwidth in OFDM.

7.7 Interference Prevention Function

Environmental Conditions:	25°C, 60% RH	Tested By:	Waydi Tuan
Link Mode		Test Result	
WiFi		Pass	

7.8 Carrier Sense Capability

Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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40 MHz System:

Antenna Gain (dBi)	Frequency (MHz)	Pcs (dBm)	Test Result
4.76	2422	-40.13	Pass
4.76	2442	-40.2	Pass
4.76	2462	-40.28	Pass

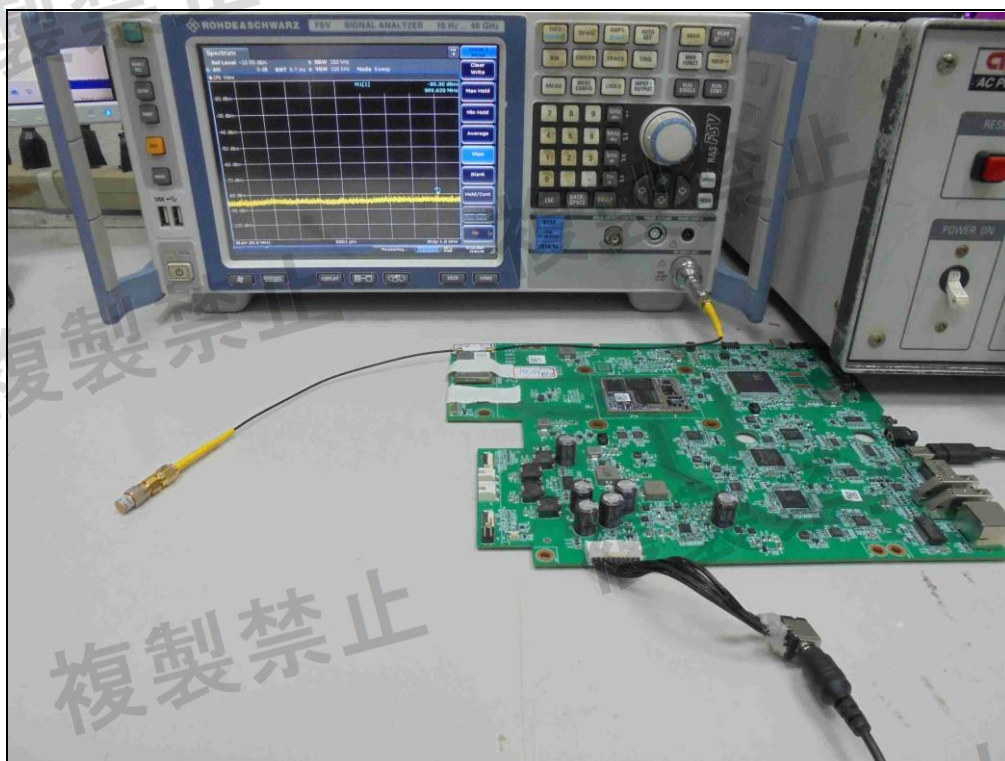
Note:

$Pcs (dBm) = 22.79 + Gr - 20\log(F)$.

Gr: Antenna gain (dBi).

F: Transmission frequency (MHz).

8 Pictures of Test Arrangements



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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