

RF Test Report

5 GHz WLAN

Report No. : FCCCBNW-WAY-P22120045-4R1
Customer : Pittasoft Co.,Ltd.
Address : A4th floor, ABN Tower, 331, Pangyo-ro, Bundang-gu,
Seongnam-si, Gyeonggi-do, Republic of Korea
Use of Report : Certification
Model Name : DR970X
FCC ID : YCK-DR970X
Date of Test : 2022.12.10 to 2023.02.02
Test Method Used : FCC 47 CFR PART 15 Subpart E (Section §15.407)
KDB55804 D01v05r02, ANSI C63.10-2013
Testing Environment : Refer to the Test Condition

Test Result : Pass Fail

ISSUED BY: BV CPS ADT Korea Ltd., EMC/RF Laboratory

ADDRESS: Innoplex No.2 106, Sinwon-ro 306, Yeongtong-gu,
Suwon-si, Gyeonggi-do, Korea 16675

TEST LOCATION: HeungAn-daero 49, DongAn-gu, Anyang-si,
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(Signature)

Technical Manager

Name : Jungwoo Kim


(Signature)

2023. 02. 16

BV CPS ADT Korea Ltd.

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RELEASE CONTROL RECORD

REPORT NO.	REASON FOR CHANGE	DATE ISSUED
FCCCBNW-WAY-P22120045-4	Original release	2023.02.03
FCCCBNW-WAY-P22120045-4R1	Error correction	2023.02.16

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1 Summary of Test Results

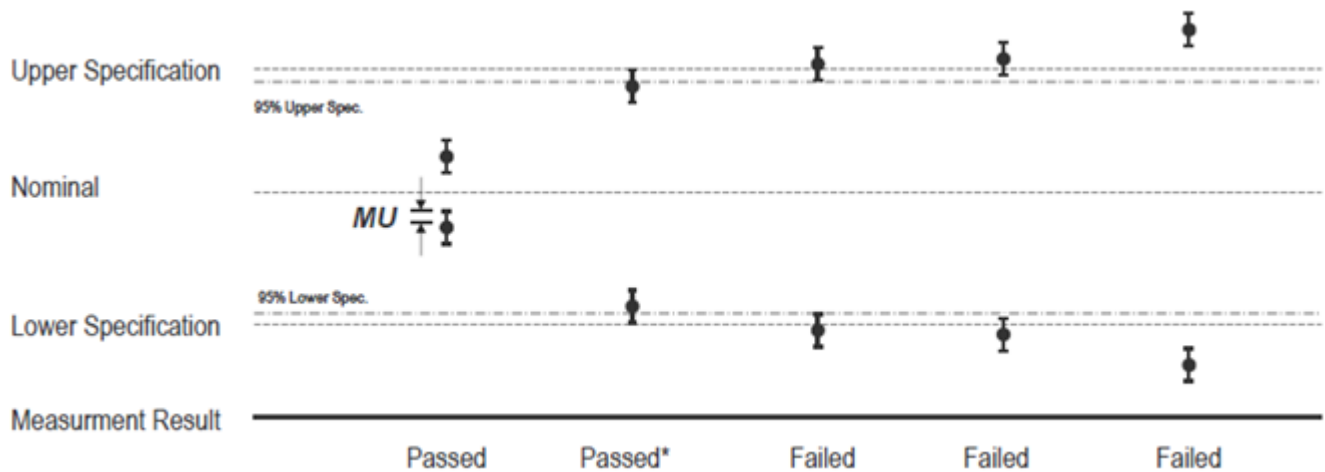
The EUT has been tested according to the following specifications

Applied Standard : FCC Part 15, Subpart C 15.247					
FCC Part Section(s)	Test Description	Limit	Test Condition	Test Result	Reference
15.407(a)	Emission Bandwidth (26 dB Bandwidth)	N/A	Conducted	PASS	Section 3.2
15.407(e)	Minimum Emission Bandwidth (6 dB Bandwidth)	> 500 kHz in 5725 ~ 5850 MHz		PASS	Section 3.3
15.407(a)	Maximum Conducted Output Power	5150 ~ 5250 MHz : < 23.97 dBm 5250 ~ 5350 & 5470 ~ 5725 MHz : < 250 mW or < 11 + 10 log ₁₀ (B) dBm, whichever power is less. (B is the 26dB BW.) 5725 ~ 5850 MHz : < 30 dBm		PASS	Section 3.4
15.407(a)	Peak Power Spectral Density	5150 ~ 5250 MHz : 11 dBm/MHz 5250 ~ 5350 MHz : 11 dBm/MHz 5470 ~ 5725 MHz : 11 dBm/MHz 5725 ~ 5850 MHz : 30 dBm/500kHz		PASS	Section 3.5
15.407(h)	Dynamic Frequency Selection	FCC 15.407(h)		NA ^{Note4}	-
15.407(b)	Undesirable Emissions	5150 ~ 5725 MHz: < -27 dBm/MHz EIRP 5725 ~ 5850 MHz: < -27 dBm/MHz or < 10 dBm/MHz or 15.6 dBm/MHz < 27dBm/MHz EIRP	Radiated	PASS	Section 3.7
15.205 15.209 15.407(b)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		PASS	Section 3.7
15.207	AC Conducted Emissions (150 kHz – 30 MHz)	< FCC 15.207 limits	AC Line Conducted	NA ^{Note3)}	Section 3.8
15.203	Antenna Requirement	FCC 15.203	-	PASS	Section 3.1

NOTES

- 1) The general test methods used to test on this devices are ANSI C63.10.
- 2) Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
- 3) This Devices which only employ battery power for operation.
- 4) This equipment does not use a DFS Band.

1.1 Decision Rules for Statement of Conformity



QUA-52 Decision Rule(QA Document) was applied.

Step 1) : Reference Check, Daily Check, Peripheral device Check

Step 2) : Re-test Procedure (Repeat the test maximum 3 times, Different Test Engineer)

- 1) If the original test results are subject to retesting and the judgement is unclear, the retest is carried out.
- 2) If the result of the first retest is the same as the initial test, the judgement is made based on the value.
- 3) If the result of the first retest differ from the results of the initial test, the second re-test is carried out.
- 4) After completion of the second retest, the average of the three test results is determined as the final result. However, if the deviation of the three test values is more than 5 % of the reference value, the technical manager should review the reproducibility of the test from the beginning.

1.2 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 Items	Frequency Range	Expanded Uncertainty $U = kU_c (k = 2)$
Radiated Spurious Emissions	9 kHz – 30 MHz	2.06
	30 MHz – 1 GHz	4.48
	1 GHz – 18 GHz	5.24
	18 GHz – 26.5 GHz	5.08

This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of $k = 2$.

2 General Information

2.1 General Description of EUT

Equipment Class	Unlicensed National Information Infrastructure (UNII)
Product name	CAR DASHCAM
FCC ID	YCK-DR970X
Model	DR970X
Additional model name	DR970X-2CH, DR970X-1CH, DR970X-2CH IR, DR970X-2CH Truck, DR970X-2CH DMS
Identification No. of EUT	Radiated: D97XK3LBE00003 Conducted: D97XK3LBE00004
Power Supply	DC 12 V , DC 24V
Modulation Type (Data Rate)	OFDM
Operating Frequency	NII 1: 5 180 MHz to 5 240 MHz NII 3: 5 745 MHz to 5 825 MHz
Output Power	NII 1: 5.27 dBm NII 3: 5.22 dBm
Antenna Type	Chip Antenna
Antenna Gain	NII 1: 1.56 dBi NII 3: 1.46 dBi
H/W Version	1.0
S/W Version	1.0

NOTES

- 1) The above equipment has been tested by **Bureau Veritas Consumer Products Services ADT Korea**, 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) List of Accessories

Accessories	Brand	Model	Manufacturer	Specification
-	-	-	-	-

2.2 Description of Test Mode

The EUT has been tested with all modes of operating conditions to determine the worst case emission characteristics.

Test Mode		Worst case data rate
TM 1	802.11a	6 Mbps
TM 2	802.11ac(VHT20)	MCS 0
TM 3	802.11ac(VHT40)	MCS 0
TM 4	802.11ac(VHT80)	MCS 0

Note. Tested at high output of 802.11n and 802.11ac.

5GHz Band	Mode	Tx frequency (MHz)	Max power(dBm)
U-NII 1	802.11a	5180 ~ 5240	5.22
	802.11n(HT20)	5180 ~ 5240	5.11
	802.11ac(VHT20)	5180 ~ 5240	5.27
	802.11n(HT40)	5190 ~ 5230	3.89
	802.11ac(VHT40)	5190 ~ 5230	4.01
	802.11ac(VHT80)	5210	3.21
U-NII 3	802.11a	5745 ~ 5825	5.22
	802.11n(HT20)	5745 ~ 5825	4.78
	802.11ac(VHT20)	5745 ~ 5825	4.85
	802.11n(HT40)	5755 ~ 5795	3.15
	802.11ac(VHT40)	5755 ~ 5795	3.27
	802.11ac(VHT80)	5775	3.61

● Tested Channel

5GHz Band	802.11a/n(HT20)/ ac(VHT20)		802.11n(HT40)/ ac(VHT40)		802.11ac(VHT80)	
	Channel	Frequency [MHz]	Channel	Frequency [MHz]	Channel	Frequency [MHz]
U-NII 1	36	5180	38	5190	42	5210
	40	5200	-	-	-	-
	48	5240	46	5230	-	-
U-NII 3	149	5745	151	5755	155	5775
	157	5785	-	-	-	-
	165	5825	159	5795	-	-

2.3 INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipments, which is traceable to recognized national standards.

2.4 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.6 General Description of Applied Standards

Generally the tests were performed according to the specifications of the standard, it must comply with the requirements of the following standards.

FCC CFR 47 Part 15, Subpart C (§15.247)

KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

All test items in this test report have been performed and recorded as per the above standards.



2.7 Test Equipment

Test Equipment is traceable to the National Institute of Standards and Technology (NIST). Measurement antenna used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Serial Number	Cal Date (yyyy.mm.dd)	Cal Due (yyyy.mm.dd)
EMI Test Receiver	R&S	ESR7	102121	2022.11.21	2023.11.21
Spectrum Analyzer	R&S	FSW50	101403	2022.11.22	2023.11.22
Signal Analyzer	Keysight Technologies	N9030B	MY57142476	2022.11.22	2023.11.22
Active Loop Antenna	R&S	HFH2-Z2E	100881	2022.02.18	2023.02.18
Trilog Antenna (with 6 dB ATT.)	Schwarzbeck	VULB 9163	01099	2022.09.03	2023.09.03
Horn Antenna	R&S	HF907	102772	2022-12-03	2023-12-03
Horn Antenna	Steatite Antenna	QSH-SL-18-26-S-20	19926	2022.11.23	2023.11.23
Signal Conditioning Unit	R&S	SCU08F2	08400017	2022.11.21	2023.11.21
Signal Conditioning Unit	R&S	SCU-18F	180112	2022.11.21	2023.11.21
Signal Conditioning Unit	R&S	SCU-26F	260005	2022.11.23	2023.11.23
High Pass Filter	Micro-Tronics	HPM17543	028	2022.06.03	2023.06.03
High Pass Filter	Wt Microwave	WT-A1698-HS	WT190313-6-4	2022.11.22	2023.11.22
Attenuator	API inmet	40AH2W-10	3	2022.06.03	2023.06.03
EXG Analog Signal Generator	Keysight Technologies	N5171B	MY56200336	2022.11.22	2023.11.22
Signal Generator	R&S	SMB100A	MY41006053	2022.06.03	2023.06.03
MIMO Power Set Master	Keysight Technologies	MP400B	NONE	2022.12.02	2023.12.02
DC Power Supply	Keysight Technologies	E3632A	MY62216181	2022.07.12	2023.07.12

3 Test Results

3.1 Antenna Requirement

Except from §15.203 of the FCC Rules/Regulations:

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of the section.

- The antenna(s) of the EUT are Permanently attached.
- There are no provisions for connection to an external antenna.

Result

The EUT complies with the requirement of §15.203

3.2 26 dB Bandwidth

3.2.1 Test Procedure

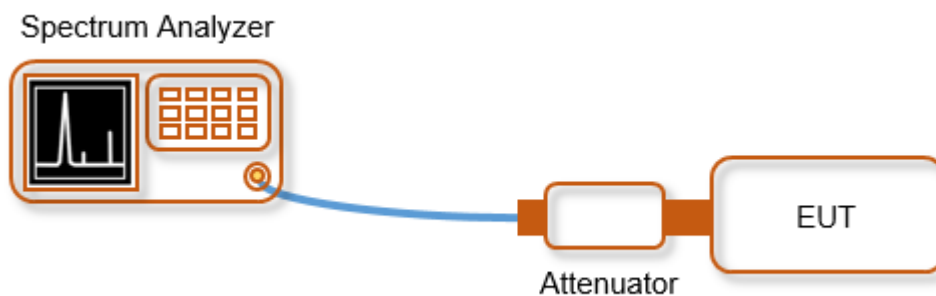
The bandwidth at 26 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies. The 26 dB bandwidth is used to determine the conducted output power limit.

The transmitter output is connected to the Spectrum Analyzer and used following test procedure of KDB789033

1. Set resolution bandwidth (RBW) = approximately 1 % of the EBW.
2. Set the video bandwidth (VBW) > RBW.
3. Detector = Peak.
4. Trace mode = max hold.

Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

3.2.2 Test Setup



3.2.3 Test Result

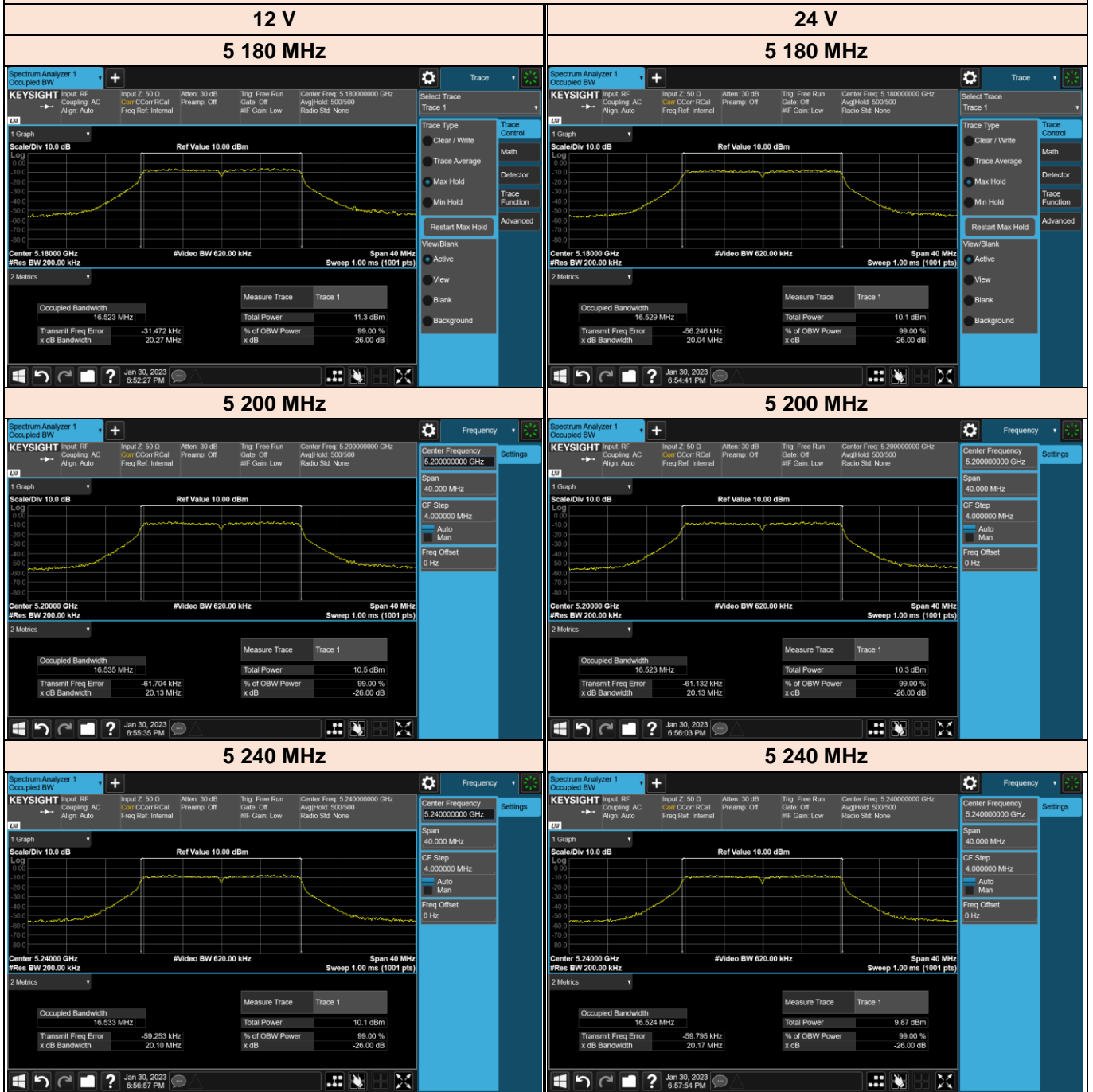
[Test Data of 26 dB Bandwidth]

Test Mode	Tested Frequency [MHz]	26 dB Bandwidth [MHz]	
		12 V	24 V
TM1	5 180	20.27	20.04
	5 200	20.13	20.13
	5 240	20.10	20.17
TM2	5 180	20.89	20.87
	5 200	21.06	20.93
	5 240	20.98	20.89
TM3	5 190	41.12	41.77
	5 230	41.64	41.85
TM4	5 210	81.00	81.69



[Test Plot of 26 dB Bandwidth]

TM1_802.11a

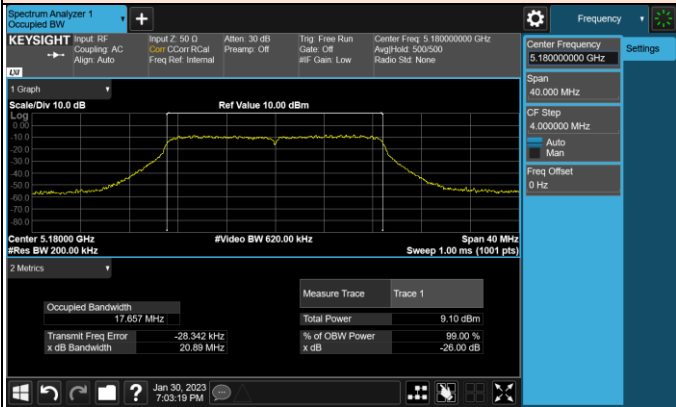




TM2_ 802.11ac(VHT20)

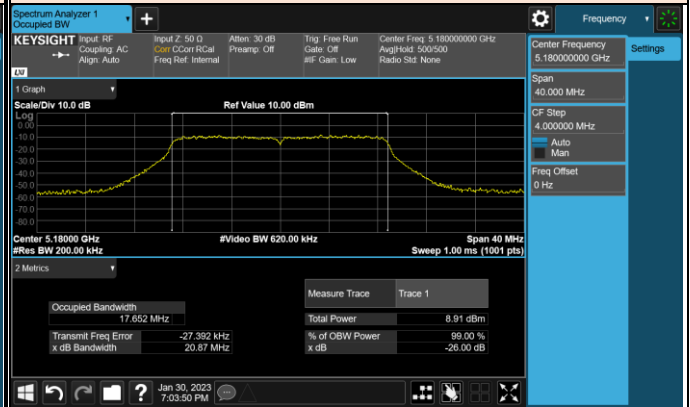
12 V

5 180 MHz



24 V

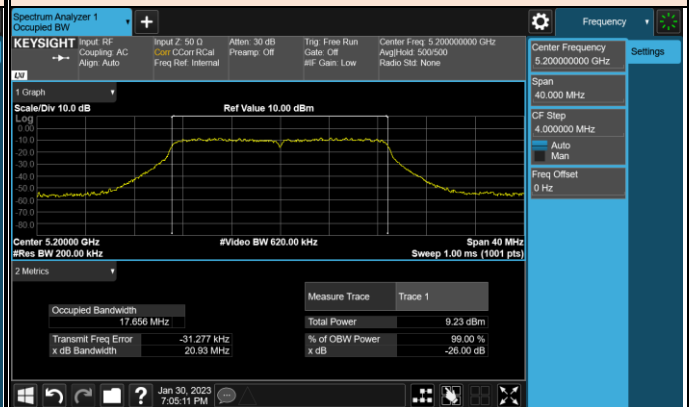
5 180 MHz



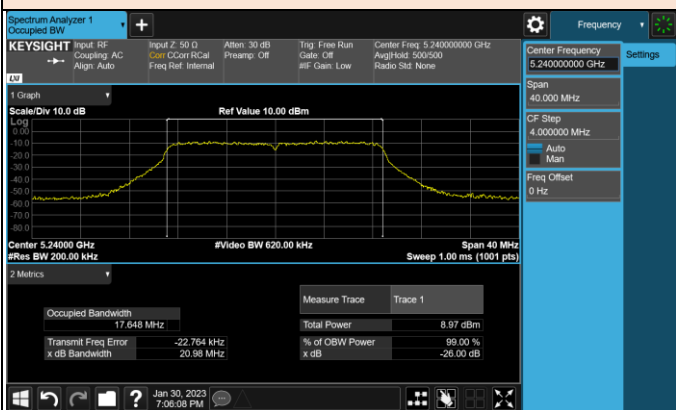
5 200 MHz



5 200 MHz



5 240 MHz



5 240 MHz

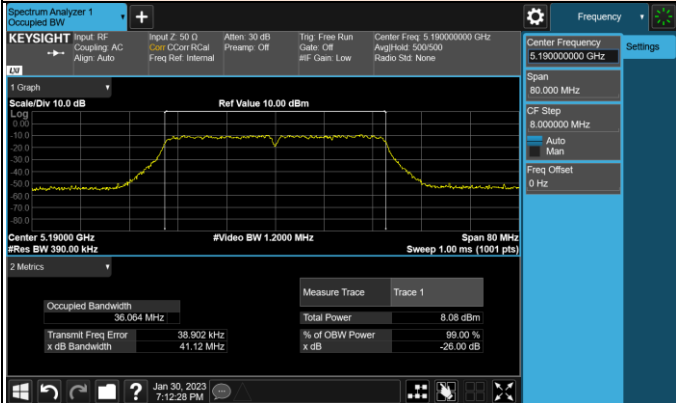




TM3_ 802.11ac(VHT40)

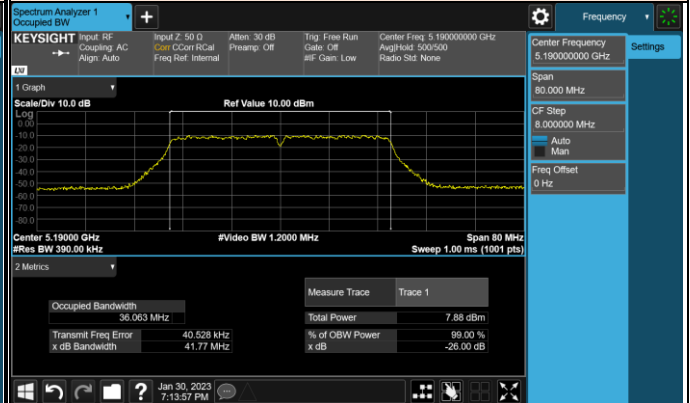
12 V

5 190 MHz

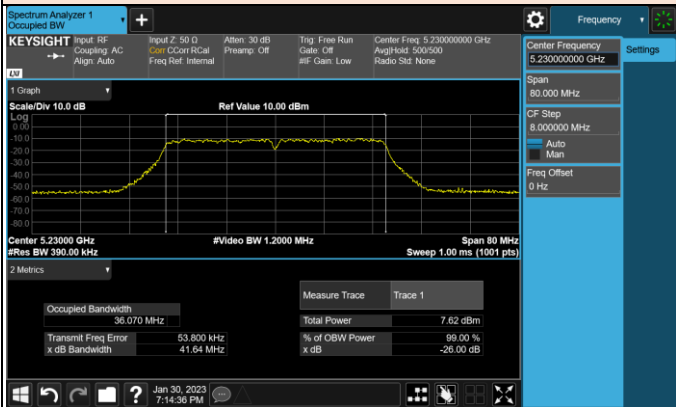


24 V

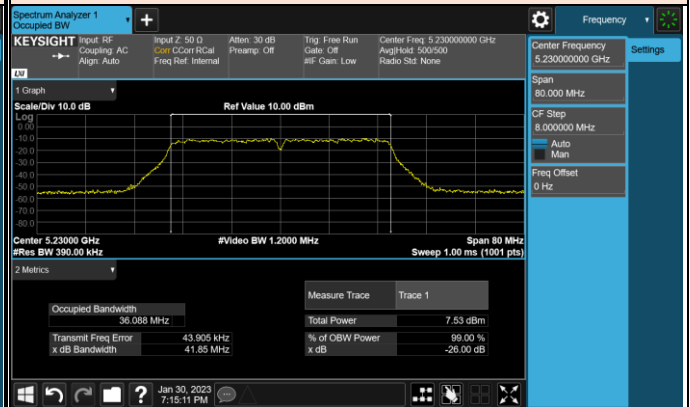
5 190 MHz



5 230 MHz



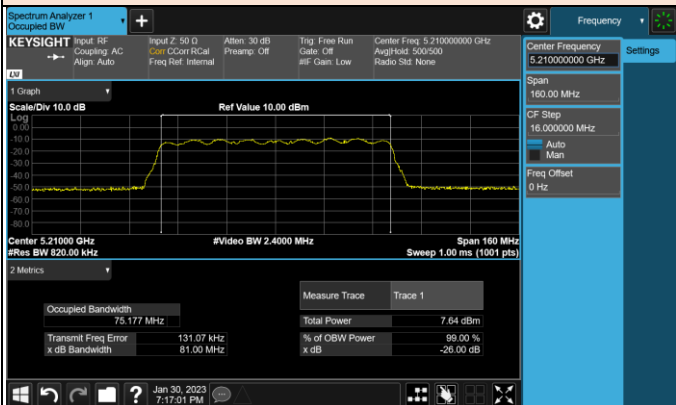
5 230 MHz



TM4_ 802.11ac(VHT80)

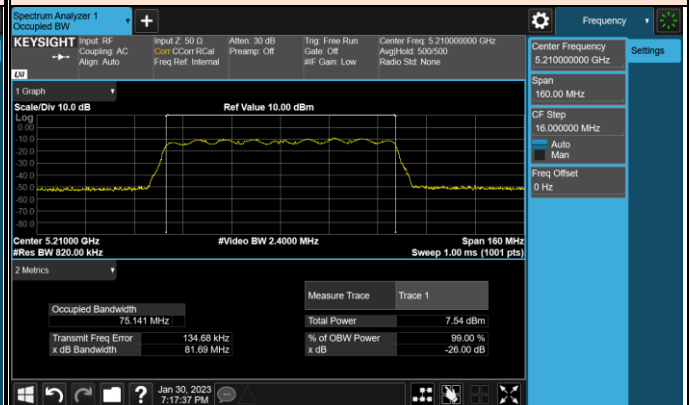
12 V

5 210 MHz



24 V

5 210 MHz



3.3 6 dB Bandwidth

3.3.1 Regulation

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

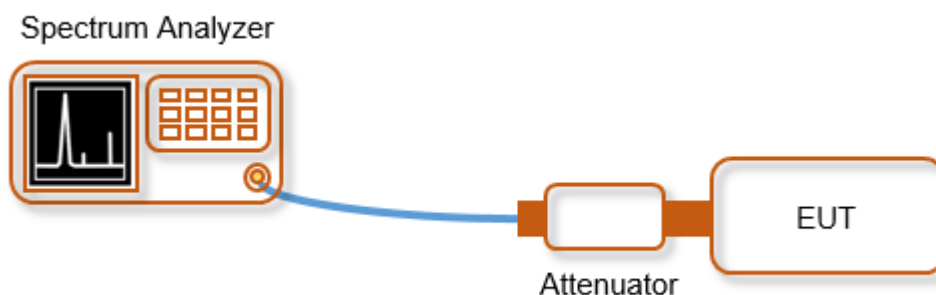
3.3.2 Test Procedure

The transmitter output is connected to the Spectrum Analyzer and used following test procedure of KDB789033

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.3 Test Setup



3.2.3 Test Result

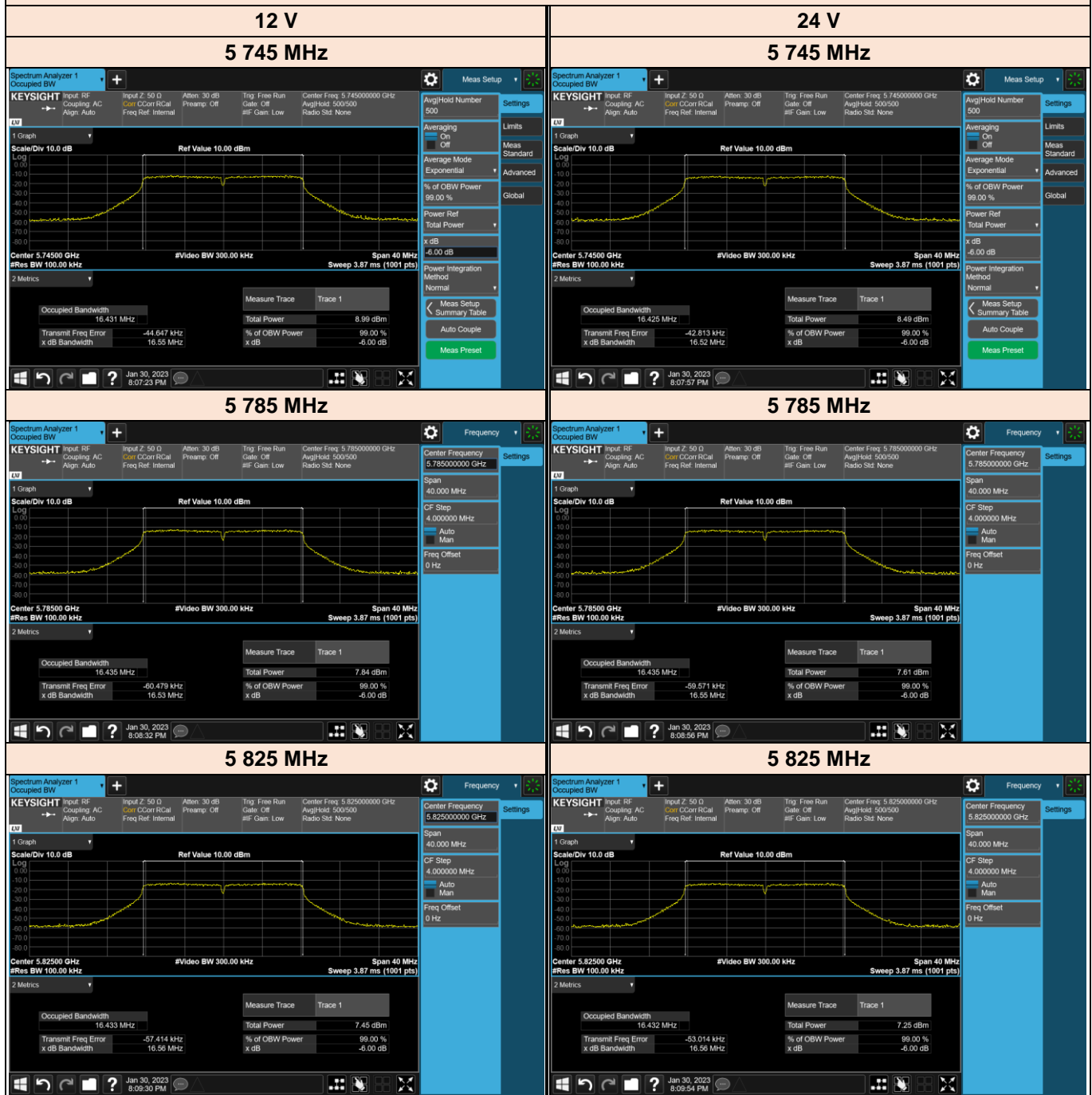
[Test Data of 6 dB Bandwidth]

Test Mode	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	
		12 V	24 V
TM1	5 745	16.55	16.52
	5 785	16.53	16.55
	5 825	16.56	16.56
TM2	5 745	17.68	17.67
	5 785	17.69	17.68
	5 825	17.66	17.67
TM3	5 755	36.45	36.47
	5 795	36.47	36.48
TM4	5 775	75.76	75.78



[Test Plot of 6 dB Bandwidth]

TM1_802.11a

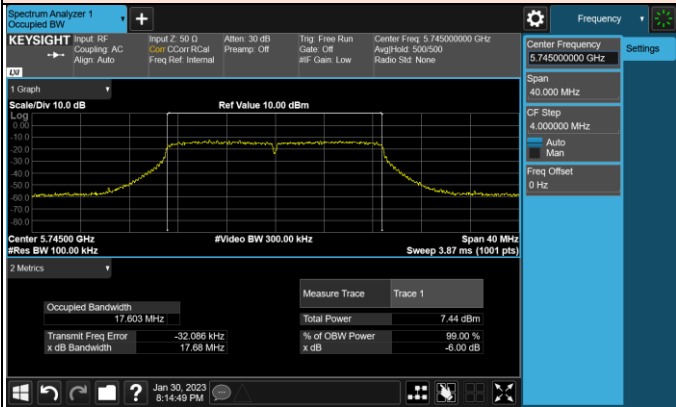




TM2_ 802.11ac(VHT20)

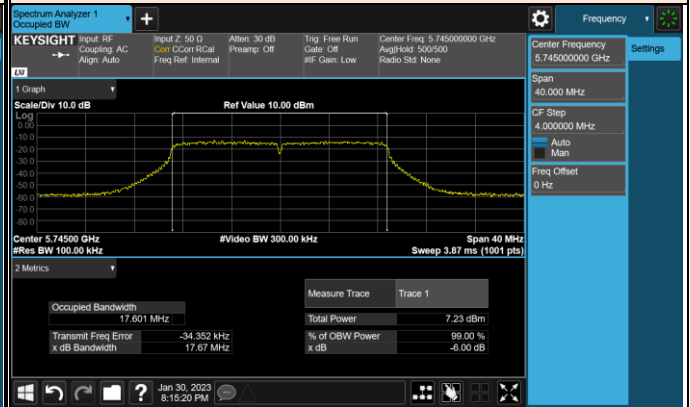
12 V

5 745 MHz

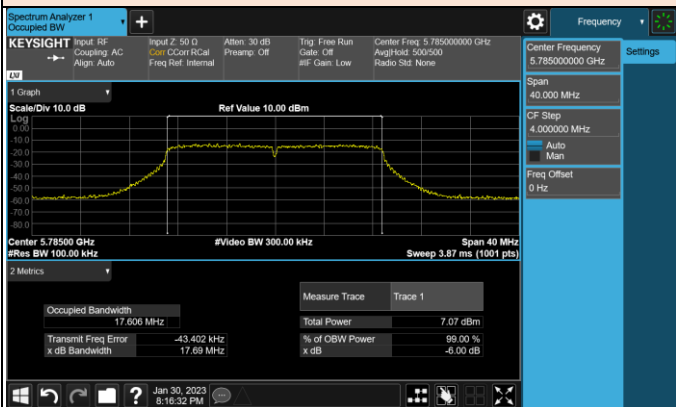


24 V

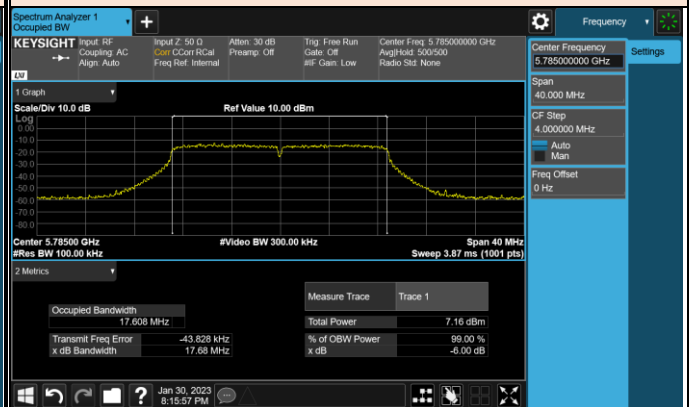
5 745 MHz



5 785 MHz



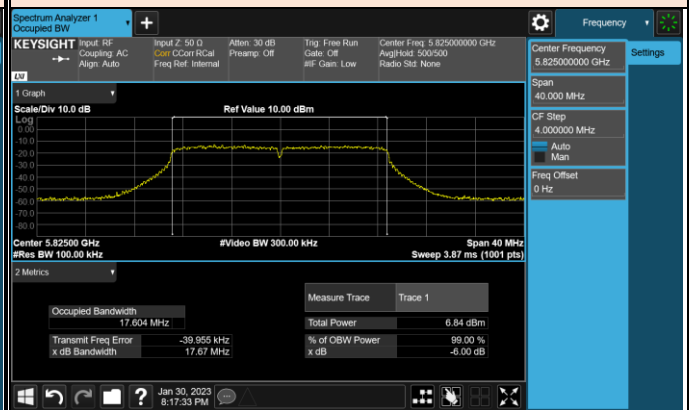
5 785 MHz

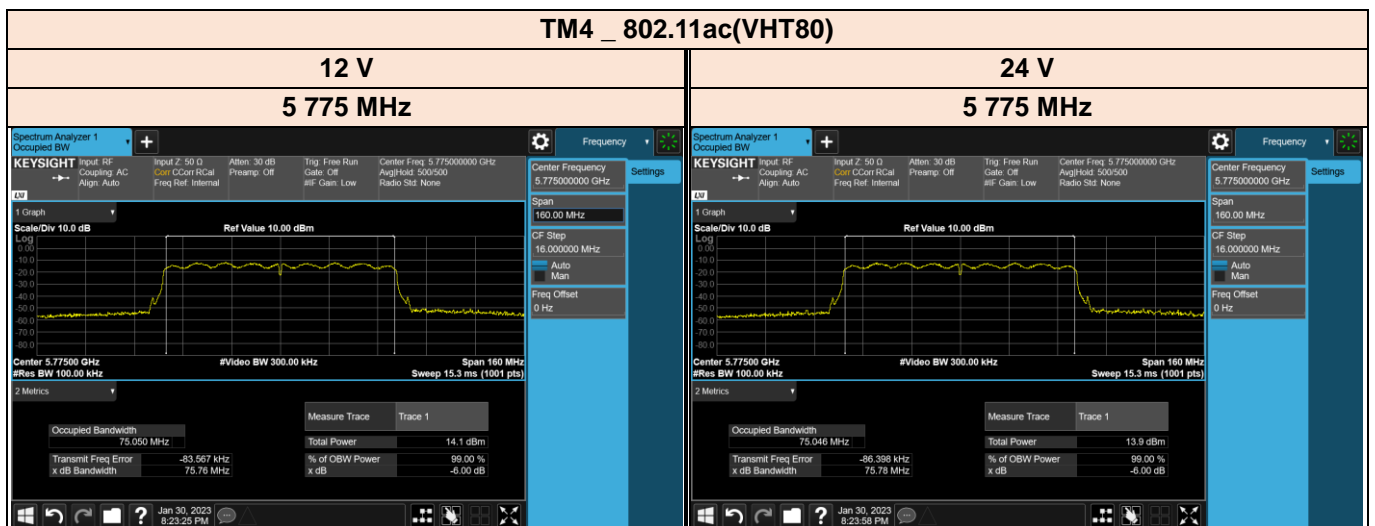
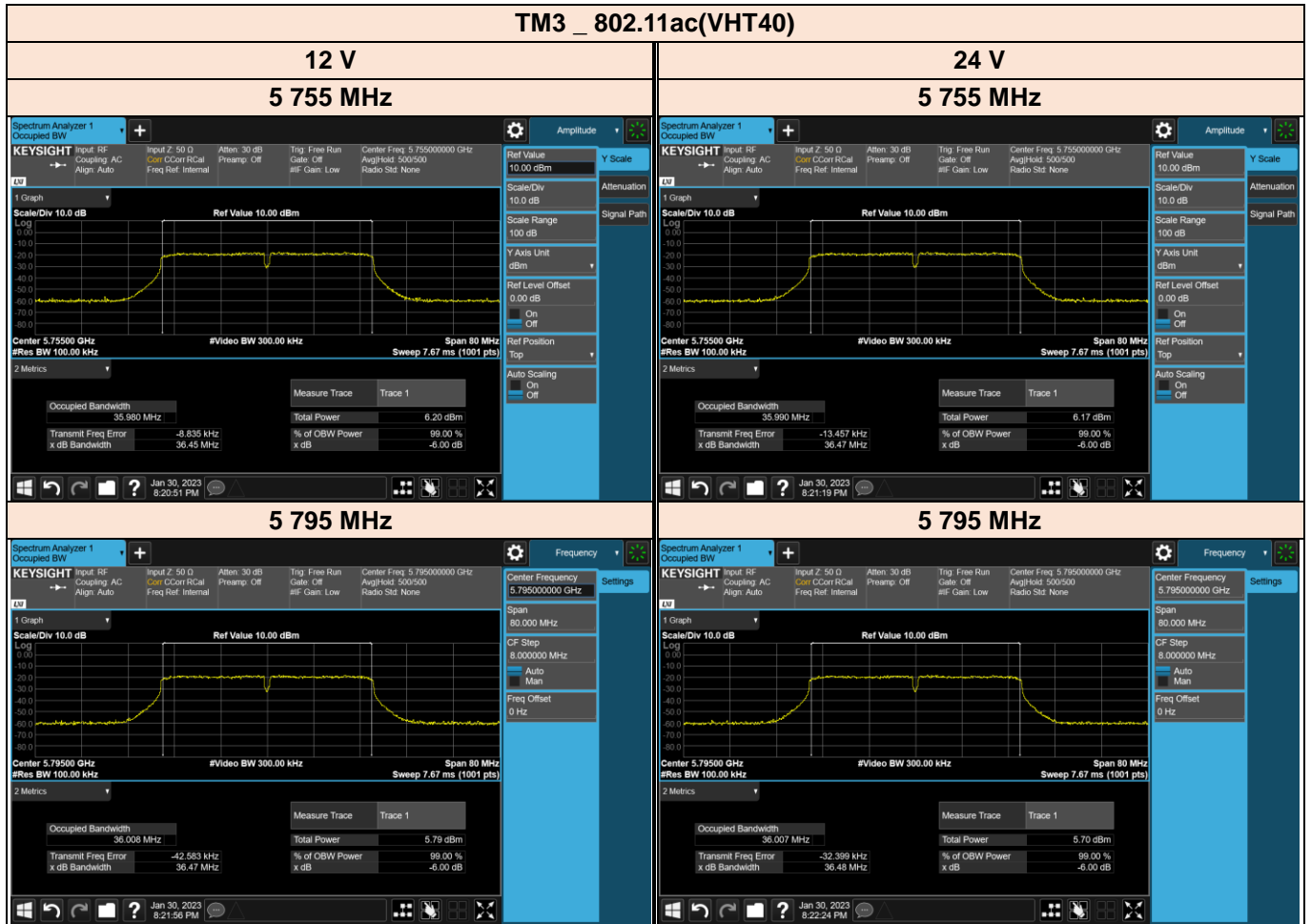


5 825 MHz



5 825 MHz





3.4 Maximum Conducted Output Power

3.4.1 Regulation

Part. 15.407(a)

(1) For the band 5.15 - 5.25 GHz.

(i) For an outdoor access point operating in the band 5.15 - 5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15 - 5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15 - 5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15 - 5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25 - 5.35 GHz and 5.47 - 5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725 - 5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in

transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.4.2 Test Procedure

Method PM-G of KDB789033

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.4.3 Test Setup





3.4.4 Test Result

[Test Result of Maximum Conducted Output Power]

Limit:

Band	Power Limit [mW]	Calculated Limit [dBm]	Antenna Gain (Worst case) [dBi]	Determined Limit [dBm]
NII 1	250	23.97	1.56	23.97
NII 3	1000	30.00	1.46	30.00

Test Mode	Band	Tested Frequency	Measured Power [dBm]			
			12 V		24 V	
			Average	Result	Average	Result
TM1	NII 1	5 180	4.60	4.60	4.56	4.56
		5 200	5.22	5.22	5.15	5.15
		5 240	5.12	5.12	5.16	5.16
	NII 3	5 745	5.22	5.22	5.21	5.21
		5 785	4.91	4.91	5.04	5.04
		5 825	4.82	4.82	4.94	4.94
TM2	NII 1	5 180	4.77	4.77	4.76	4.76
		5 200	5.16	5.16	5.27	5.27
		5 240	5.06	5.06	5.11	5.11
	NII 3	5 745	4.71	4.71	4.85	4.85
		5 785	4.76	4.76	4.77	4.77
		5 825	4.61	4.61	4.56	4.56
TM3	NII 1	5 190	3.84	3.84	4.01	4.01
		5 230	3.74	3.74	3.86	3.86
	NII 3	5 755	3.15	3.15	3.20	3.20
		5 795	3.11	3.11	3.27	3.27
TM4	NII 1	5 210	3.18	3.18	3.21	3.21
	NII 3	5 775	3.55	3.55	3.61	3.61

Note1: The intent is to test at 100 % duty cycle.

Note2: Result = Average Power + Dudy cycle factor

3.5 Maximum Power Spectral Density

3.5.1 Regulation

Part. 15.407(a)

(1) For the band 5.15 - 5.25 GHz.

(i) For an outdoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 MHz band. note1

(ii) For an indoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 MHz band. note1

(iii) For fixed point-to-point access points operating in the band 5.15 - 5.25 GHz, transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.

(iv) For mobile and portable client devices in the 5.15 - 5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 MHz band. note1

(2) For the 5.25 - 5.35 GHz and 5.47 - 5.725 GHz bands, the peak power spectral density shall not exceed 11 dBm in any 1 MHz band. note1

(3) For the band 5.725 - 5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500 kHz band. ^{note1,note2}

Note1: If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note2: Fixed point - to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

3.5.2 Test Procedure

Maximum Power Spectral Density is measured using Measurement Procedure of KDB789033 D02v02r01

1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA - 1, SA - 2, SA - 3, or alternatives to each) and apply it up to, but not including, the step labeled, "Compute power...". (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)

2) Use the peak search function on the instrument to find the peak of the spectrum and record its value.

3) Make the following adjustments to the peak value of the spectrum, if applicable:

a) If Method SA - 2 or SA - 2 Alternative was used, add $10 \log(1 / x)$, where x is the duty cycle, to the peak of the spectrum.

b) If Method SA - 3 Alternative was used and the linear mode was used in step II.E.2.g (viii), add 1 dB

to the final result to compensate for the difference between linear averaging and power averaging.

4) The result is the Maximum PSD over 1 MHz reference bandwidth.

5) For devices operating in the bands 5.15 - 5.25 GHz, 5.25 - 5.35 GHz, and 5.47 - 5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in §15.407(a)(5). For devices operating in the band 5.725 - 5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

a) Set $RBW \geq 1 / T$, where T is defined in section II.B.1.a). (Refer to Appendix II)

b) Set $VBW \geq 3 RBW$.

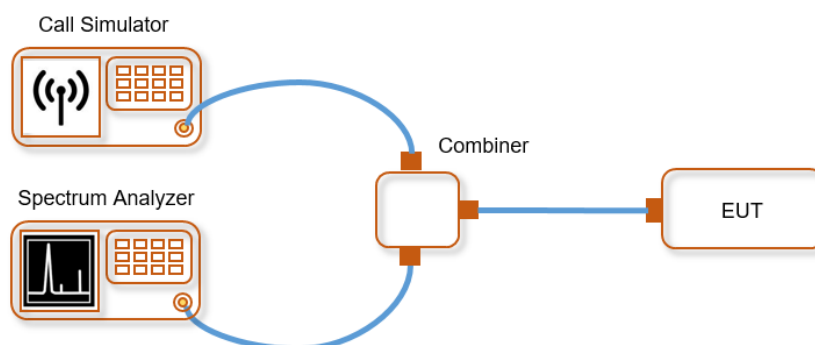
c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log(500 \text{ kHz} / RBW)$ to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log(1 \text{ MHz} / RBW)$ to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since RBW = 100 kHz is available on nearly all spectrum analyzers.

3.5.3 Test Setup





3.5.4 Test Result

[Test Result of Maximum Power Spectral Density]

Limit

Band	Limit [dBm]	Antenna Gain (Worst case) [dBi]	Determined Limit [dBm]
NII 1	11.00	1.56	11.00
NII 3	30.00	1.46	30.00

Test Mode	Band	Tested Frequency	Measured Power [dBm]					
			12 V			24 V		
			Reading	T.F	Result	Reading	T.F	Result
TM1	NII 1	5 180	-8.97	NA	-8.97	-8.99	NA	-8.99
		5 200	-8.49		-8.49	-8.60		-8.60
		5 240	-8.69		-8.69	-8.76		-8.76
	NII 3	5 745	-18.75	6.99	-11.76	-18.84	6.99	-11.85
		5 785	-19.50		-12.51	-19.72		-12.73
		5 825	-19.72		-12.73	-19.71		-12.72
TM2	NII 1	5 180	-9.04	NA	-9.04	-9.23	NA	-9.23
		5 200	-8.71		-8.71	-8.80		-8.80
		5 240	-8.84		-8.84	-9.03		-9.03
	NII 3	5 745	-19.65	6.99	-12.66	-19.59	6.99	-12.60
		5 785	-19.82		-12.83	-19.84		-12.85
		5 825	-20.02		-13.03	-20.07		-13.08
TM3	NII 1	5 190	-13.32	NA	-13.32	-13.28	NA	-13.28
		5 230	-13.42		-13.42	-13.62		-13.62
	NII 3	5 755	-23.60	6.99	-16.61	-23.79	6.99	-16.80
		5 795	-24.38		-17.39	-24.46		-17.47
TM4	NII 1	5 210	-15.72	NA	-15.72	-15.82	NA	-15.82
	NII 3	5 775	-26.03	6.99	-19.04	-26.11	6.99	-19.12

Note1: The intent is to test at 100 % duty cycle.

Note2: NII 3 [T.F] = 10*LOG(500kHz/100kHz) + DCCF"

Note3: Test Result = Measurement Data + T.F