



TEST REPORT

Applicant: Evolve 3 Holdings Pty Ltd

Address: PO BOX 6222, NARRAWEENA, NSW, Australia

FCC ID: 2AWLG-T3P1165GV1

Product Name: Laptop

Standard(s): 47 CFR Part 15, Subpart E(15.407)
ANSI C63.10-2013
KDB 789033 D02 General U-NII Test Procedures New
Rules v02r01

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: CR231061458-00D

Date Of Issue: 2024/1/12

Reviewed By: Calvin Chen

Calvin Chen

Title: RF Engineer

Approved By: Sun Zhong

Sun Zhong

Title: Manager

Test Laboratory: China Certification ICT Co., Ltd (Dongguan)

No. 113, Pingkang Road, Dalang Town, Dongguan,
Guangdong, China

Tel: +86-769-82016888

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

This report cannot be reproduced except in full, without prior written approval of the Company.

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

This report may contain data that are not covered by the accreditation scope and shall be marked with an asterisk “★”.

CONTENTS

DOCUMENT REVISION HISTORY	5
1. GENERAL INFORMATION	6
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	6
1.2 DESCRIPTION OF TEST CONFIGURATION.....	9
1.2.1 EUT Operation Condition:.....	9
1.2.2 Support Equipment List and Details	11
1.2.3 Support Cable List and Details	11
1.2.4 Block Diagram of Test Setup.....	12
1.3 MEASUREMENT UNCERTAINTY	13
2. SUMMARY OF TEST RESULTS	14
3. REQUIREMENTS AND TEST PROCEDURES	15
3.1 AC LINE CONDUCTED EMISSIONS.....	15
3.1.1 Applicable Standard.....	15
3.1.2 EUT Setup.....	16
3.1.3 EMI Test Receiver Setup	16
3.1.4 Test Procedure	17
3.1.5 Corrected Amplitude & Margin Calculation.....	17
3.2 RADIATION SPURIOUS EMISSIONS.....	18
3.2.1 Applicable Standard.....	18
3.2.2 EUT Setup.....	19
3.2.3 EMI Test Receiver & Spectrum Analyzer Setup	20
3.2.4 Test Procedure	20
3.2.5 Corrected Amplitude & Margin Calculation.....	21
3.3 EMISSION BANDWIDTH.....	22
3.3.1 Applicable Standard.....	22
3.3.2 EUT Setup.....	22
3.3.3 Test Procedure	22
3.4 MAXIMUM CONDUCTED OUTPUT POWER.....	24
3.4.1 Applicable Standard.....	24
3.4.2 EUT Setup.....	24
3.4.3 Test Procedure	24
3.5 MAXIMUM POWER SPECTRAL DENSITY	25
3.5.1 Applicable Standard.....	25
3.5.2 EUT Setup.....	25
3.5.3 Test Procedure	26
3.7 DUTY CYCLE	27
3.7.1 EUT Setup.....	27
3.7.2 Test Procedure	27
3.8 ANTENNA REQUIREMENT.....	28
3.8.1 Applicable Standard.....	28
3.8.2 Judgment.....	28

4. Test DATA AND RESULTS	29
4.1 AC LINE CONDUCTED EMISSIONS.....	29
4.2 RADIATION SPURIOUS EMISSIONS.....	32
1) Radiation Spurious Emissions Test Data (9kHz~30MHz)	33
2) Radiation Spurious Emissions Test Data (30MHz-1GHz)	33
3) Radiation Spurious Emissions Test Data (1GHz-40GHz).....	58
4) Test plots for Band Edge Measurements in 5745-5825 MHz Band (Radiated).....	88
5) Listed with the worst radiation spurious emissions margin test plots.....	116
4.3 EMISSION BANDWIDTH.....	124
4.4 MAXIMUM CONDUCTED OUTPUT POWER.....	181
4.5 MAXIMUM POWER SPECTRAL DENSITY	185
4.6 DUTY CYCLE	243
5. EUT PHOTOGRAPHS	247
6. TEST SETUP PHOTOGRAPHS	248

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231061458-00D	Original Report	2024/1/12

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

1.1.1 General:

EUT Name:	Laptop
EUT Model:	T3P1165GV1
Trade Name:	
Operation Frequency:	<p>Band 1: 5180-5240 MHz (802.11a/n ht20/ac vht20/ax hew20) 5190-5230 MHz(802.11n ht40/ac vht40/ax hew40) 5210 MHz(802.11ac vht80/ax hew80)</p> <p>Band 2: 5260-5320 MHz (802.11a/n ht20/ac vht20/ax hew20) 5270-5310 MHz(802.11n ht40/ac vht40/ax hew40) 5290 MHz(802.11ac vht80/ax hew80)</p> <p>Band 3: 5500-5720 MHz (802.11a/n ht20/ac vht20/ax hew20) 5510-5710 MHz(802.11n ht40/ac vht40/ax hew40) 5530-5690 MHz(802.11ac vht80/ax hew80)</p> <p>Band 4: 5745-5825 MHz (802.11a/n ht20/ac vht20/ax hew20) 5755-5795 MHz(802.11n ht40/ac vht40/ax hew40) 5775 MHz(802.11ac vht80/ax hew80)</p>
Maximum Average Output Power (Conducted):	14.06dBm (5150-5250 MHz) 14.10dBm (5250-5350 MHz) 13.84dBm (5470-5725 MHz) 13.96dBm (5725-5850 MHz)
Modulation Type:	802.11a/n/ac: OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM 802.11ax: OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Rated Input Voltage:	DC 5-20V from type-c adapter or DC 19V from DC adapter or DC 7.6V from battery
Serial Number:	2CHZ-1(For Emission Test) 2CHZ-2(For RF Conducted Test)
EUT Received Date:	2023/10/23
EUT Received Status:	Good

1.1.2 Operation Frequency Detail
For 802.11a/n ht20/ac vht20/ ax hew20:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	52	5260	100	5500	149	5745
40	5200	56	5280	104	5520	153	5765
44	5220	60	5300	108	5540	157	5785
48	5240	64	5320	112	5560	161	5805
/	/	/	/	116	5580	165	5825
/	/	/	/	132	5660	/	/
/	/	/	/	136	5680	/	/
/	/	/	/	140	5700	/	/
/	/	/	/	144	5720	/	/

Per section 15.31(m), the below frequencies were performed the test as below:

Test Channel	Test Frequency (MHz)			
	5150-5250MHz Band	5250-5350 MHz Band	5470-5725 MHz Band	5725-5850MHz Band
Lowest	5180	5260	5500	5745
Middle	5200	5280	5580	5785
Highest	5240	5320	5700	5825
Cross	/	/	5720	/

For 802.11n ht40/ac vht40/ ax hew40:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	54	5270	102	5510	151	5755
46	5230	62	5310	110	5550	159	5795
/	/	/	/	118	5590	/	/
/	/	/	/	126	5630	/	/
/	/	/	/	134	5670	/	/
/	/	/	/	142	5710	/	/

Per section 15.31(m), the below frequencies were performed the test as below:

Test Channel	Test Frequency (MHz)			
	5150-5250MHz Band	5250-5350 MHz Band	5470-5725 MHz Band	5725-5850MHz Band
Lowest	5190	5270	5510	5755
Middle	/	/	5550	/
Highest	5230	5310	5670	5795
Cross	/	/	5710	/

For 802.11ac vht80/ ax hew80:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	58	5290	106	5530	155	5775
/	/	/	/	122	5610	/	/
/	/	/	/	138	5690	/	/

Per section 15.31(m), the below frequencies were performed the test as below:

Test Channel	Test Frequency (MHz)			
	5150-5250MHz Band	5250-5350 MHz Band	5470-5725 MHz Band	5725-5850MHz Band
Lowest	/	/	5530	/
Middle	5210	5290	/	5775
Highest	/	/	5610	/
Cross	/	/	5690	

1.1.3 Antenna Information Detail▲:

Antenna Chain	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
Main Antenna (Support WLAN)(Chain 1)	FPC	50	5.15-5.25GHz& 5.725~5.85GHz	3.52dBi
AUX Antenna (Support BT+WLAN) (Chain 0)	FPC	50	5.15-5.25GHz& 5.725~5.85GHz	3.55dBi

The Method of §15.203 Compliance:

- Antenna was permanently attached to the unit.
- Antenna use a unique type of connector to attach to the EUT.
- Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

1.1.4 Accessory Information:

Accessory Description	Manufacturer	Model
USB Type-C Adapter	Shenzhen Jihongda Power Co.,Ltd.	JHD-AP045U-PD-BF502

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
Equipment Modifications:	No
EUT Exercise Software:	DRTU.exe

The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer ▲ :

5150-5250 MHz Band:

Test Modes	Test Channels	Test Frequency	Data rate	Power Level Setting	
				Chain 0	Chain 1
802.11a	Lowest	5180	6Mbps	13	13
	Middle	5200	6Mbps	13	13
	Highest	5240	6Mbps	13	13
802.11n ht20	Lowest	5180	HT8	10	10
	Middle	5200	HT8	10	10
	Highest	5240	HT8	10	10
802.11n ht40	Lowest	5190	HT8	10	10
	Highest	5230	HT8	10	10
802.11ac vht80	Middle	5210	VHT8	10	10
802.11ax hew20	Lowest	5180	MCS8	13	13
	Middle	5200	MCS8	13	13
	Highest	5240	MCS8	13	13
802.11ax hew40	Lowest	5190	MCS8	13	13
	Highest	5230	MCS8	13	13
802.11ax hew80	Middle	5210	MCS8	13	13

5250-5350 MHz Band:

Test Modes	Test Channels	Test Frequency	Data rate	Power Level Setting	
				Chain 0	Chain 1
802.11a	Lowest	5260	6Mbps	13	13
	Middle	5280	6Mbps	13	13
	Highest	5320	6Mbps	13	13
802.11n ht20	Lowest	5260	HT8	10	10
	Middle	5280	HT8	10	10
	Highest	5320	HT8	10	10
802.11n ht40	Lowest	5270	HT8	10	10
	Highest	5310	HT8	10	10
802.11ac vht80	Middle	5290	VHT8	10	10
802.11ax hew20	Lowest	5260	MCS8	13	13
	Middle	5280	MCS8	13	13
	Highest	5320	MCS8	13	13
802.11ax hew40	Lowest	5270	MCS8	13	13
	Highest	5310	MCS8	13	13
802.11ax hew80	Middle	5290	MCS8	13	13

5470-5725 MHz Band:

Test Modes	Test Channels	Test Frequency	Data rate	Power Level Setting	
				Chain 0	Chain 1
802.11a	Lowest	5500	6Mbps	13	13
	Middle	5580	6Mbps	13	13
	Highest	5700	6Mbps	13	13
	Cross	5720	6Mbps	13	13
802.11n ht20	Lowest	5500	HT8	10	10
	Middle	5580	HT8	10	10
	Highest	5700	HT8	10	10
	Cross	5720	HT8	10	10
802.11n ht40	Lowest	5510	HT8	10	10
	Middle	5550	HT8	10	10
	Highest	5670	HT8	10	10
	Cross	5710	HT8	10	10
802.11ac vht80	Lowest	5530	VHT8	10	10
	Middle	5610	VHT8	10	10
	Highest	5690	VHT8	10	10
802.11ax hew20	Lowest	5500	MCS8	13	13
	Middle	5580	MCS8	13	13
	Highest	5700	MCS8	13	13
	Cross	5720	MCS8	13	13
802.11ax hew40	Lowest	5510	MCS8	13	13
	Middle	5550	MCS8	13	13
	Highest	5670	MCS8	13	13
	Cross	5710	MCS8	13	13
802.11ax hew80	Lowest	5530	MCS8	13	13
	Middle	5610	MCS8	13	13
	Highest	5690	MCS8	13	13

5725-5850 MHz Band:

Test Modes	Test Channels	Test Frequency	Data rate	Power Level Setting	
				Chain 0	Chain 1
802.11a	Lowest	5745	6Mbps	13	13
	Middle	5785	6Mbps	13	13
	Highest	5825	6Mbps	13	13
802.11n ht20	Lowest	5745	HT8	10	10
	Middle	5785	HT8	10	10
	Highest	5825	HT8	10	10
802.11n ht40	Lowest	5755	HT8	10	10
	Highest	5795	HT8	10	10
802.11ac vht80	Middle	5775	VHT8	10	10
802.11ax hew20	Lowest	5745	MCS8	13	13
	Middle	5785	MCS8	13	13

	Highest	5825	MCS8	13	13
802.11ax hew40	Lowest	5755	MCS8	13	13
	Highest	5795	MCS8	13	13
802.11ax hew80	Middle	5775	MCS8	13	13

Note:

1. The system support 802.11a/n ht20/n ht40/ac vht20/ac vht40/ac vht80/ax hew20/ax hew 40/ax hew 80, the ac vht20/ac vht40 were reduced since the identical parameters with 802.11n ht20 and 802.11n ht40.
2. The above are the worst-case data rates, which are determined for each mode based upon investigations by measuring the average power and PSD across all data rates, bandwidths, and modulations.
3. The device supports SISO in all modes, and MIMO 2T2R in 802.11n/ac/ax modes, per pretest, 2T2R mode was the worst mode and reported for 802.11n/ac/ax modes.
4. For 802.11 ax mode, the device only supports full-RU.

1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
PHILIPS	Monitor	24PFF5595/T3	XM2A2124000343
SanDisk	TF Card	16 GB	1183DRECV11N
Xinspower	DC Adapter	A361-1203000D	Unknown
CLC	Earphone	Whiteview5.0	EP21107125
DongFeng	Phone	P3	UP3_BSGF187E000165

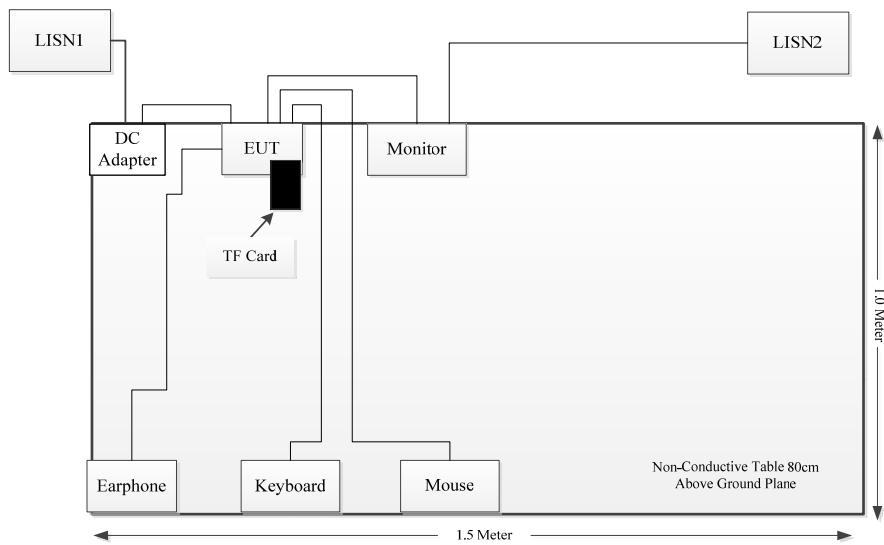
1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	no	no	1.2	Type-C Adapter	EUT
Power Cable	no	no	1.2	DC Adapter	LISN1
Power Cable	no	no	1	DC Adapter	EUT
Power Cable	no	no	1.5	Monitor	LISN2
Earphone Cable	no	no	1	EUT	Earphone
HDMI Cable	no	no	0.8	EUT	Monitor
USB Cable	no	no	1.2	EUT	Phone
Keyboard Cable	no	no	1.2	EUT	Keyboard
Mouse Cable	no	no	1.2	EUT	Mouse

1.2.4 Block Diagram of Test Setup

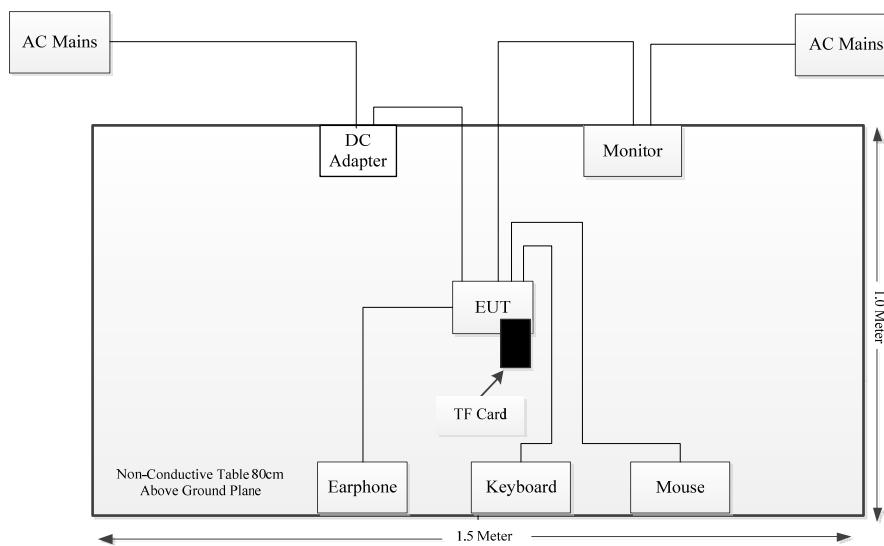
AC Line Conducted Emissions:

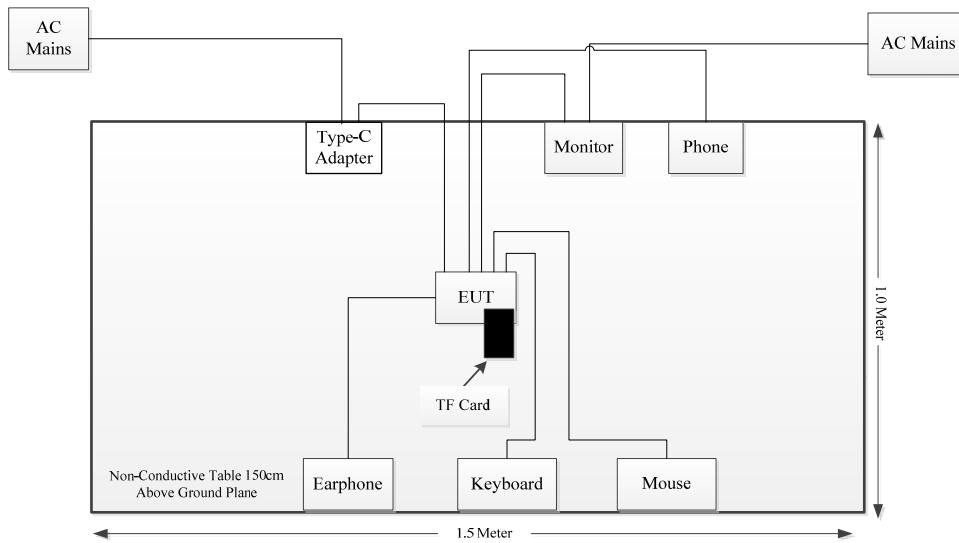
DC Adapter:



Radiation Spurious Emissions:

DC Adapter:



Type-C Adapter:**1.3 Measurement Uncertainty**

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 4.12dB, 30M~200MHz: 4.15 dB, 200M~1GHz: 5.61 dB, 1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
FCC§15.207(a)	AC line conducted emissions	Compliant
FCC§15.205& §15.209 &§15.407(b)	Radiated Spurious Emissions	Compliant
FCC§15.407 (c)	Automatically Discontinue Transmission	Compliant*
FCC§15.407(a) (e)	Emission Bandwidth	Compliant
FCC§15.407(a)	Conducted Transmitter Output Power	Compliant
FCC§15.407 (a)	Power Spectral Density	Compliant
FCC§15.407 (g)	Frequency Stability	Compliant**
FCC§15.203	Antenna Requirement	Compliant

Note:

Compliant:* During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving, the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

*Compliant**:* Grantee ensure that the product meets e-CFR Title 47 section 15.407(g) and KDB 789033 D02v02r01 frequency stability such that the emissions are maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

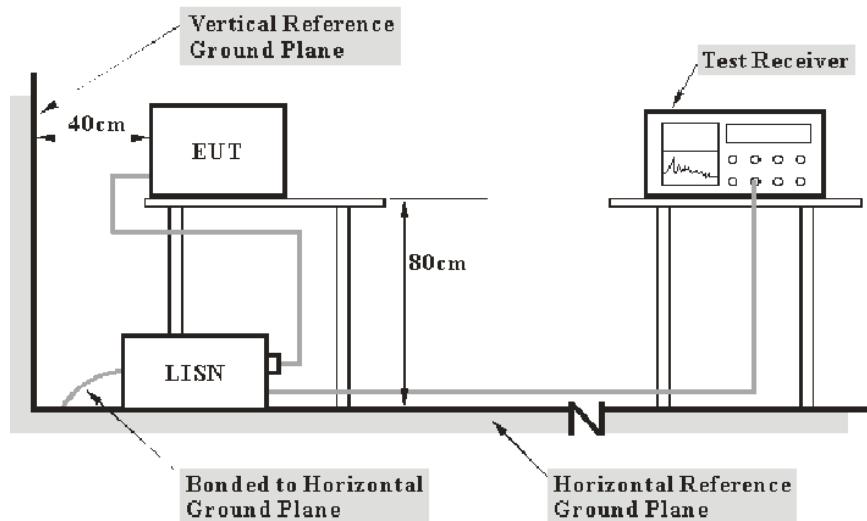
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μ V within the frequency band 535-1705 kHz, as measured using a 50 μ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

3.1.2 EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “Margin” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.2 Radiation Spurious Emissions

3.2.1 Applicable Standard

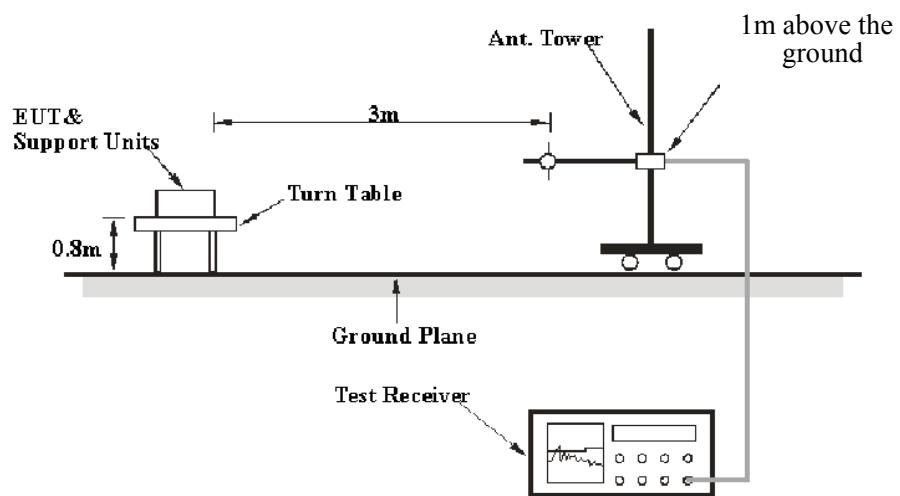
FCC §15.407 (b);

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

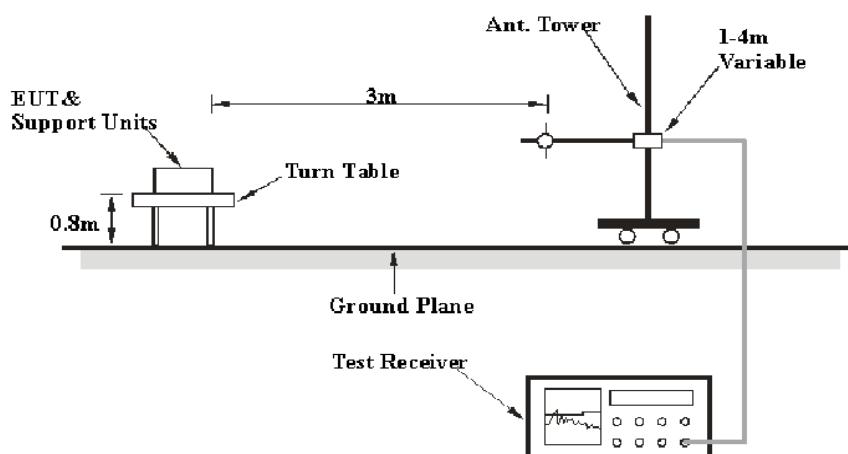
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
 - (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
 - (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
 - (4) For transmitters operating solely in the 5.725-5.850 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
 - (ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
 - (8) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
 - (9) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.
 - (10) The provisions of § 15.205 apply to intentional radiators operating under this section.
 - (11) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.
- (c) The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.2.2 EUT Setup

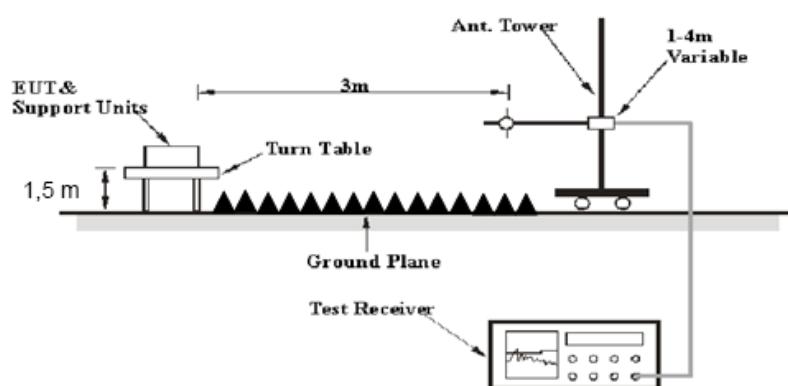
9kHz~30MHz:



30MHz~1GHz:



1-40 GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was FCC 15.209, FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9kHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

9kHz-1000MHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	300 Hz	1 kHz	/	PK
	/	/	200 Hz	QP/AV
150 kHz – 30 MHz	10 kHz	30 kHz	/	PK
	/	/	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	/	PK
	/	/	120 kHz	QP

1GHz- 40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	1/T

Note: T is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.4 Test Procedure

During the radiated emission test, the adapter was connected to the first AC floor outlet.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz, average detection modes for the frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E [\text{dB}\mu\text{V}/\text{m}] = \text{EIRP} [\text{dBm}] + 95.2$, for $d = 3$ meters.

All emissions under the average limit and under the noise floor have not recorded in the report.

3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

For 9kHz-1GHz:

Factor = Antenna Factor + Cable Loss- Amplifier Gain

For 1GHz-40GHz

Factor = Antenna Factor + Cable Loss- Amplifier Gain -Distance extrapolation Factor

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.3 Emission Bandwidth

3.3.1 Applicable Standard

FCC §15.407 (a)

(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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

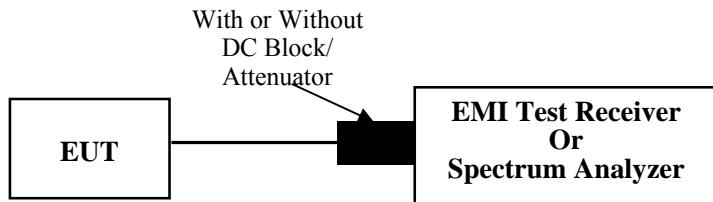
FCC §15.407 (e)

Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

FCC §15.407 (h)

(h)(2) Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems.

3.3.2 EUT Setup



3.3.3 Test Procedure

26dB Emission Bandwidth:

According to ANSI C63.10-2013 Section 12.4.1

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = peak.
- d) Trace mode = max hold
- e) 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 instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6 dB emission bandwidth:

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) \geq 3 RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described in this section. For devices that use channel aggregation refer to III.A and III.C for determining emission bandwidth.

99% Occupied Bandwidth:

According to ANSI C63.10-2013 Section 12.4.2&6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

3.4 Maximum Conducted Output Power

3.4.1 Applicable Standard

FCC §15.407(a) (1)(iv)

For 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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

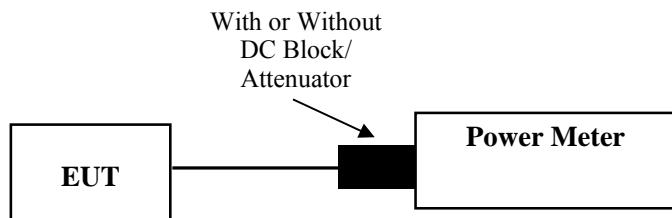
FCC §15.407(a) (2)

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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

FCC §15.407(a) (3)(i)

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. 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 EUT Setup



3.4.3 Test Procedure

According to ANSI C63.10-2013 Section 12.3.3.2

Method PM-G is measurement using a gated RF average power meter.

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. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.5 Maximum Power Spectral Density

3.5.1 Applicable Standard

FCC §15.407(a) (1)(iv)

For 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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

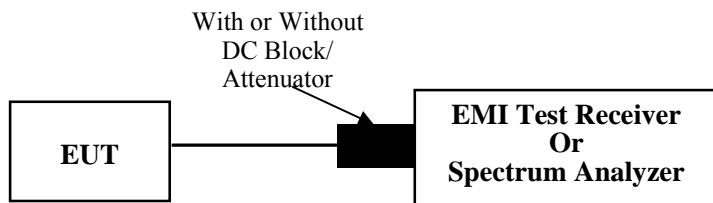
FCC §15.407(a) (2)

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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.

FCC §15.407(a) (3)(i)

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. 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.

3.5.2 EUT Setup



3.5.3 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Duty cycle $\geq 98\%$

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 **Alternative** should be applied.

Duty cycle $< 98\%$, duty cycle variations are less than $\pm 2\%$

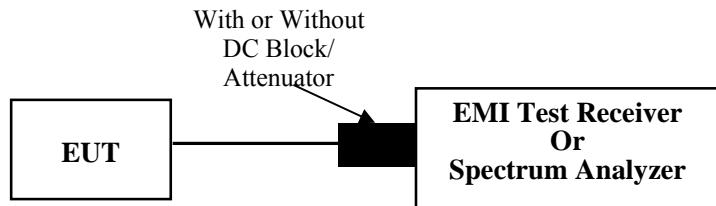
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 **Alternative** should be applied.

Duty cycle $< 98\%$, duty cycle variations exceed $\pm 2\%$

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

3.7 Duty Cycle

3.7.1 EUT Setup



3.7.2 Test Procedure

According to ANSI C63.10-2013 Section 12.2

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:

- 1) Set the center frequency of the instrument to the center frequency of the transmission.
- 2) Set $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value.
- 3) Set $VBW \geq RBW$. Set detector = peak or average.
- 4) The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if $T \leq 16.7 \mu s$.)

3.8 Antenna Requirement

3.8.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall 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 this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.8.2 Judgment

Result: Compliant. Please refer to the Antenna Information detail in Section 1.

4. Test DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2CHZ-1	Test Date:	2023/11/15
Test Site:	CE	Test Mode:	Transmitting (Testes at maximum output power mode 802.11ax hew20 5320MHz)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.4	Relative Humidity: (%)	46	ATM Pressure: (kPa)	101.7
----------------------	------	---------------------------	----	------------------------	-------

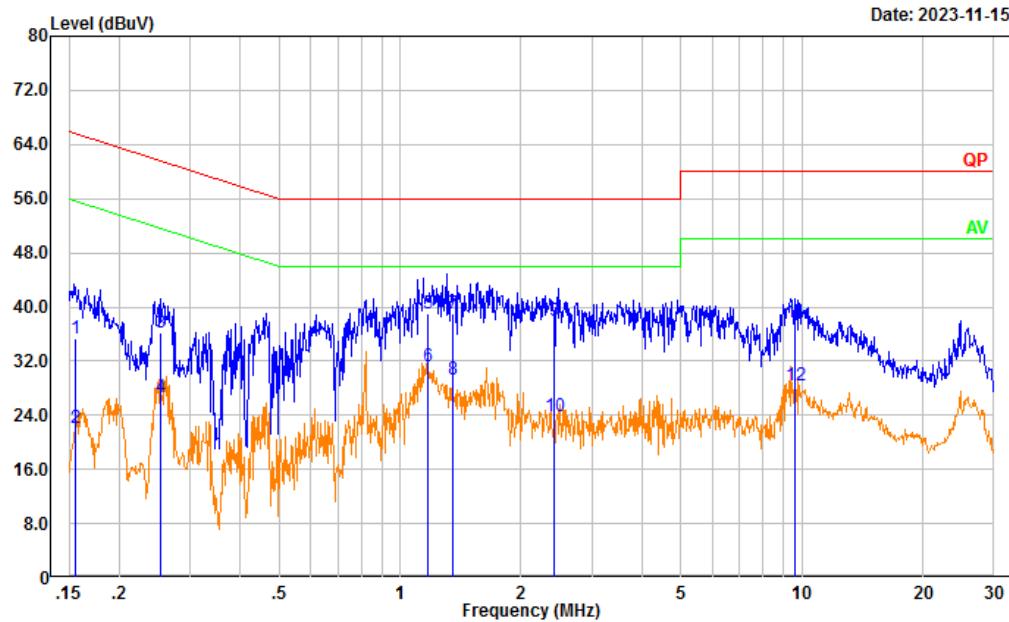
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	LISN	ENV216	101132	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/8/6	2024/8/5
Audix	Test Software	E3	190306 (V9)	N/A	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

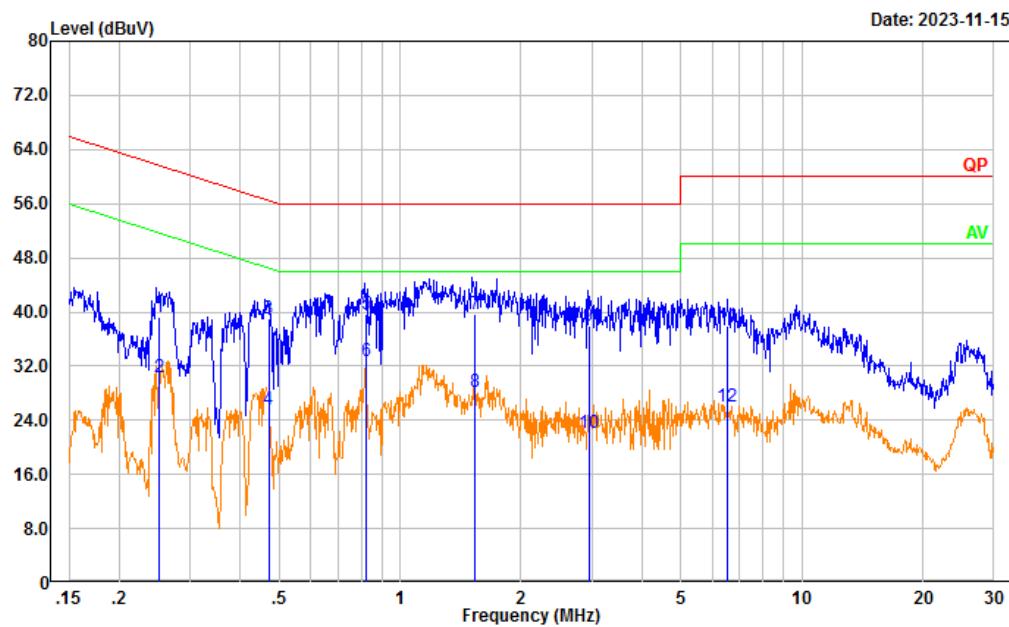
DC Adapter:

Project No.: CR231061458-RF
Tester: David Huang
Port: Line
Note: Transmitting(5G WIFI)



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V)	Margin (dB)	Detector
<hr/>							
1	0.155	25.65	9.61	35.26	65.71	30.45	QP
2	0.155	12.59	9.61	22.20	55.71	33.51	Average
3	0.255	26.53	9.61	36.14	61.61	25.47	QP
4	0.255	17.16	9.61	26.77	51.61	24.84	Average
5	1.169	29.30	9.62	38.92	56.00	17.08	QP
6	1.169	21.52	9.62	31.14	46.00	14.86	Average
7	1.349	29.34	9.62	38.96	56.00	17.04	QP
8	1.349	19.63	9.62	29.25	46.00	16.75	Average
9	2.411	28.34	9.64	37.98	56.00	18.02	QP
10	2.411	14.25	9.64	23.89	46.00	22.11	Average
11	9.605	28.05	9.67	37.72	60.00	22.28	QP
12	9.605	18.83	9.67	28.50	50.00	21.50	Average

Project No.: CR231061458-RF
Tester: David Huang
Port: neutral
Note: Transmitting(5G WIFI)



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V)	Margin (dB)	Detector
1	0.251	29.58	9.61	39.19	61.71	22.52	QP
2	0.251	20.71	9.61	30.32	51.71	21.39	Average
3	0.471	29.37	9.61	38.98	56.50	17.52	QP
4	0.471	15.91	9.61	25.52	46.50	20.98	Average
5	0.822	30.01	9.62	39.63	56.00	16.37	QP
6	0.822	23.12	9.62	32.74	46.00	13.26	Average
7	1.540	30.01	9.63	39.64	56.00	16.36	QP
8	1.540	18.61	9.63	28.24	46.00	17.76	Average
9	2.945	28.26	9.65	37.91	56.00	18.09	QP
10	2.945	12.56	9.65	22.21	46.00	23.79	Average
11	6.496	28.27	9.66	37.93	60.00	22.07	QP
12	6.496	16.30	9.66	25.96	50.00	24.04	Average

4.2 Radiation Spurious Emissions

Serial Number:	2CHZ-1	Test Date:	2023/11/16~2024/1/12
Test Site:	966-2,966-1	Test Mode:	Transmitting
Tester:	Jeff Luo, Tao Zhu	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	25~25.7	Relative Humidity: (%)	52~56	ATM Pressure: (kPa)	101.3~101.7

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiation Spurious Emissions Below 1GHz					
Sunol Sciences	Antenna	JB6	A082520-6	2023/9/18	2026/9/17
BACL	Loop Antenna	1313-1P	3092721	2023/10/20	2026/10/19
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
Audix	Test Software	E3	201021 (V9)	N/A	N/A
Radiation Spurious Emissions Above 1GHz					
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2023/11/8	2024/11/7
Audix	Test Software	E3	201021 (V9)	N/A	N/A
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5
E-Microwave	Band Rejection Filter	5150-5850MHz	OE01902423	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5
PASTERNACK	Horn Antenna	PE9850/2F-20	072001	2021/2/5	2024/2/4

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

After pre-scan in the X, Y and Z axes of orientation, the worst-case Y axes is below:

Please refer to the below table and plots.

1) Radiation Spurious Emissions Test Data (9kHz~30MHz)

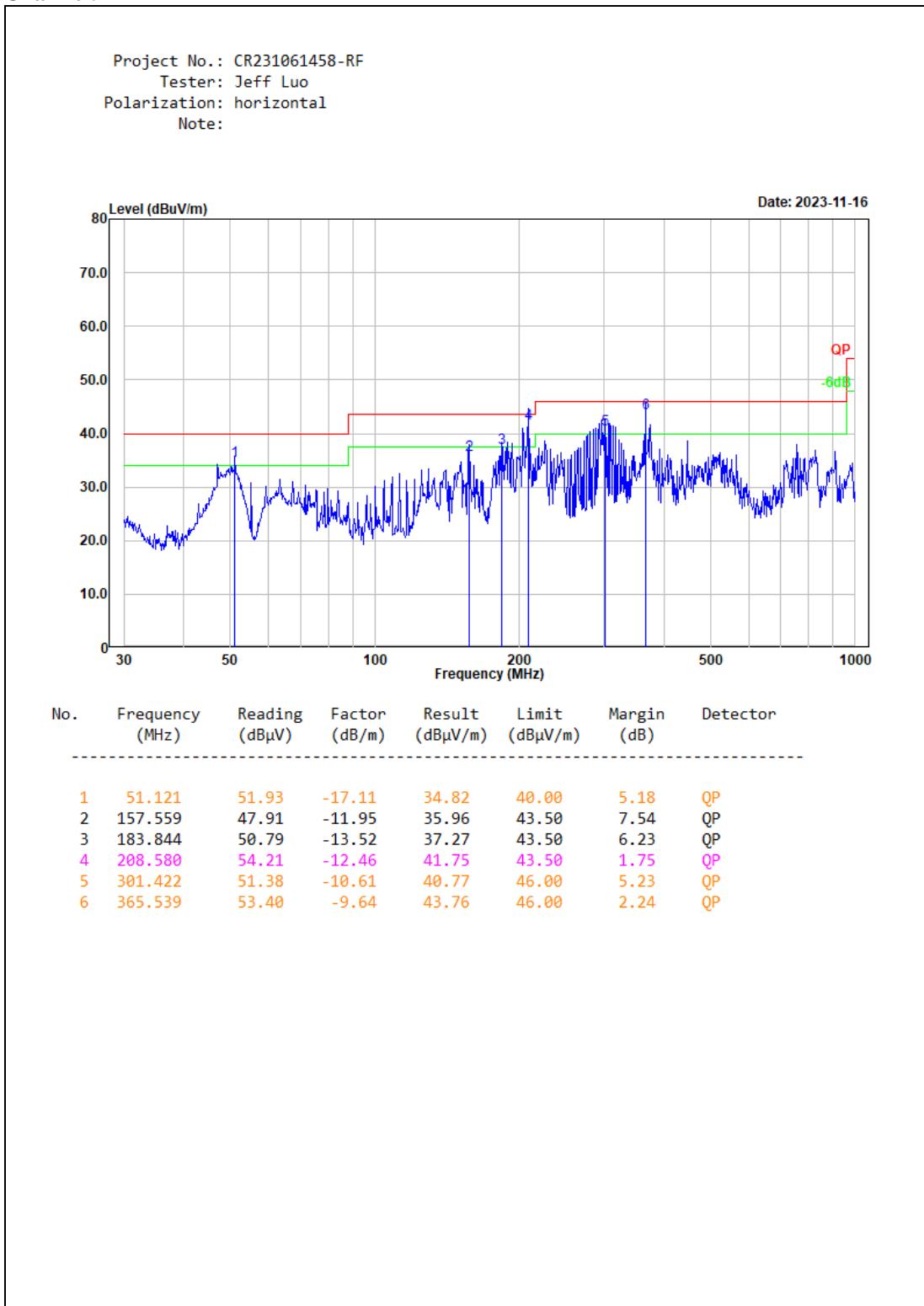
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

2) Radiation Spurious Emissions Test Data (30MHz-1GHz)

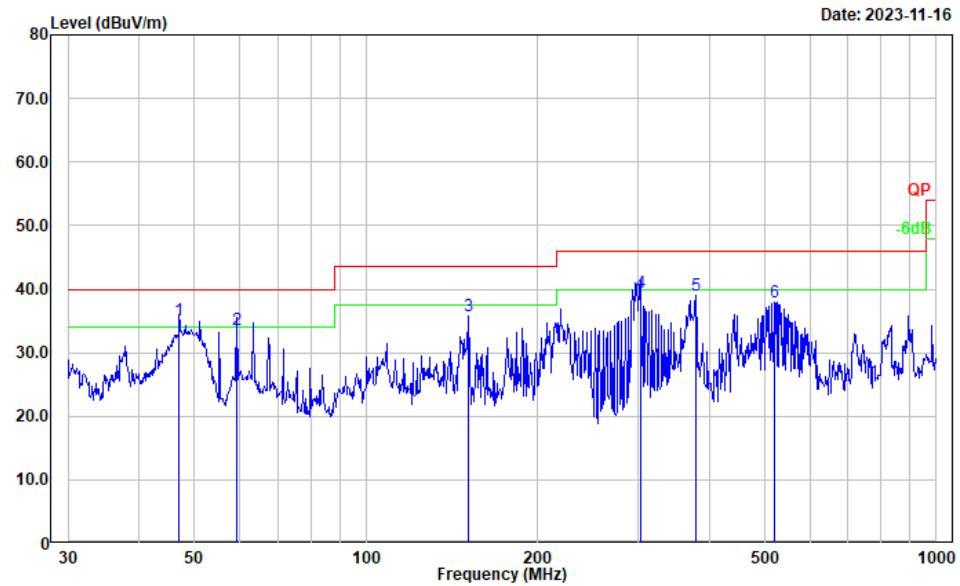
Note:

1. Powered from DC IN port was the worst.
2. Tested at Maximum output power mode:
 - 1) for U-NII-1 Band (5150~5250MHz); U-NII-2A Band (5250~5350MHz); U-NII-2C Band (5470~5725MHz).
Tested at 802.11ax hew20 mode.
 - 2) for U-NII-3 Band (5725~5850MHz): Tested at 802.11n ht20 mode.

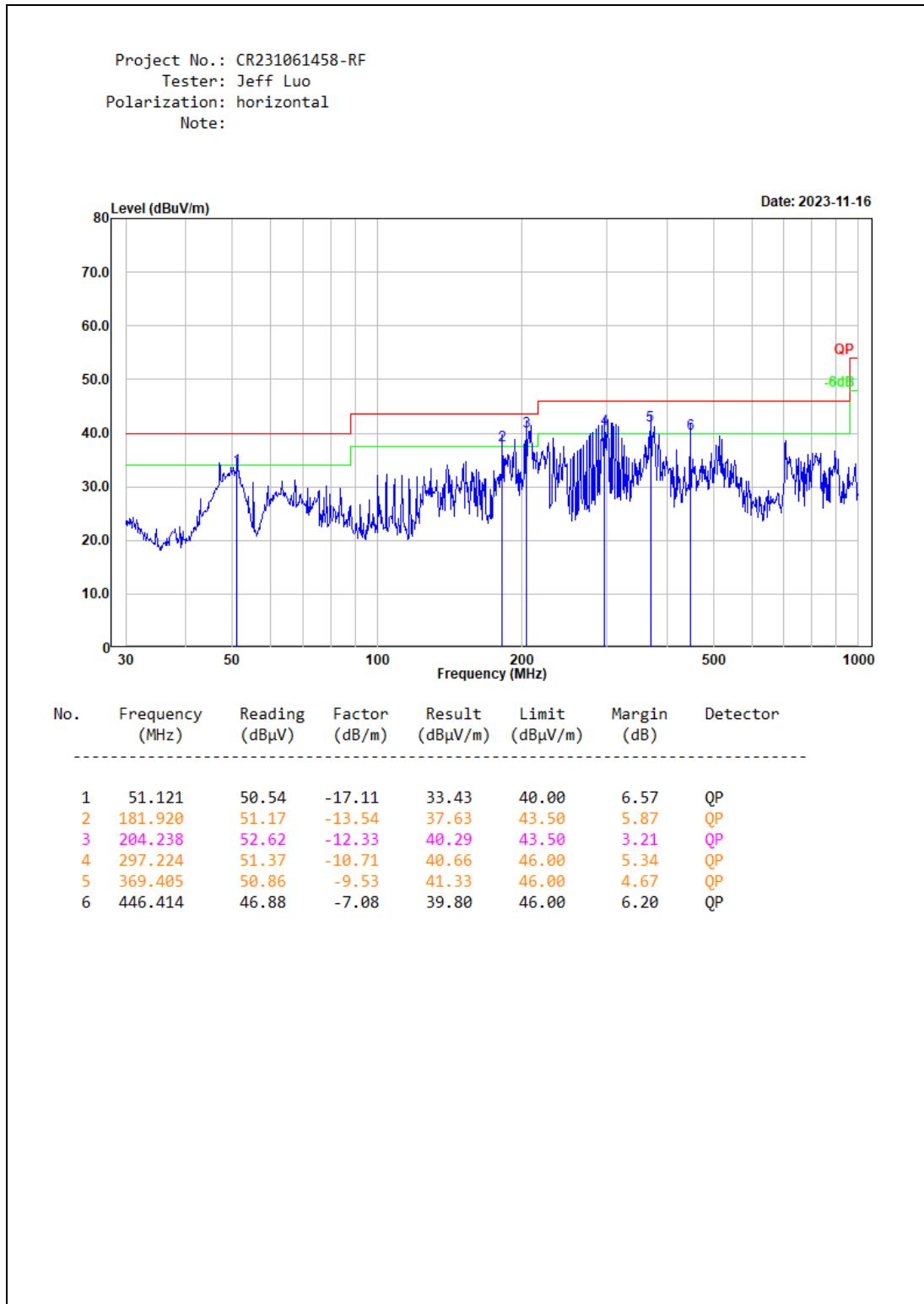
Please refer to the below plots.

5150-5250MHz, maximum output power mode, 802.11ax hew20 mode**Low Channel:**

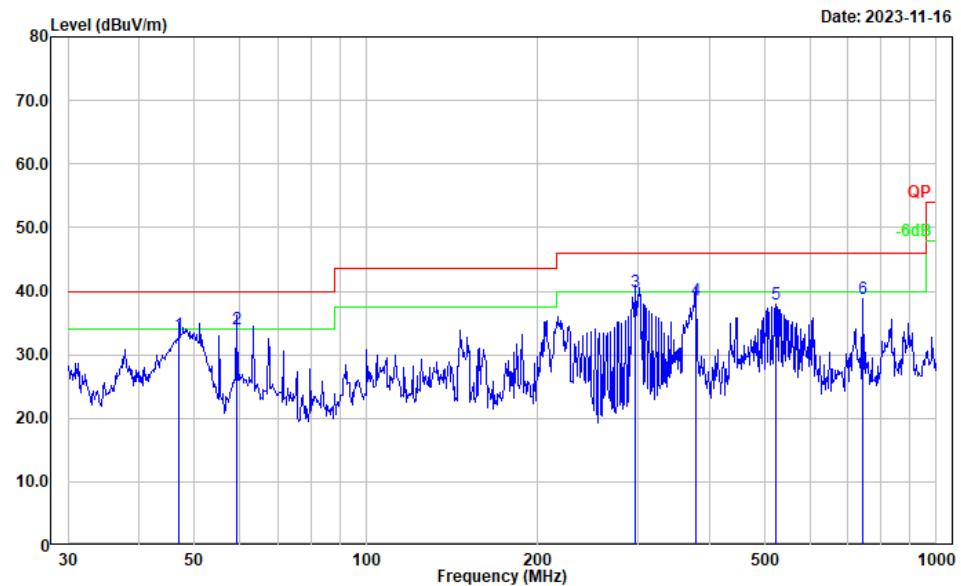
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



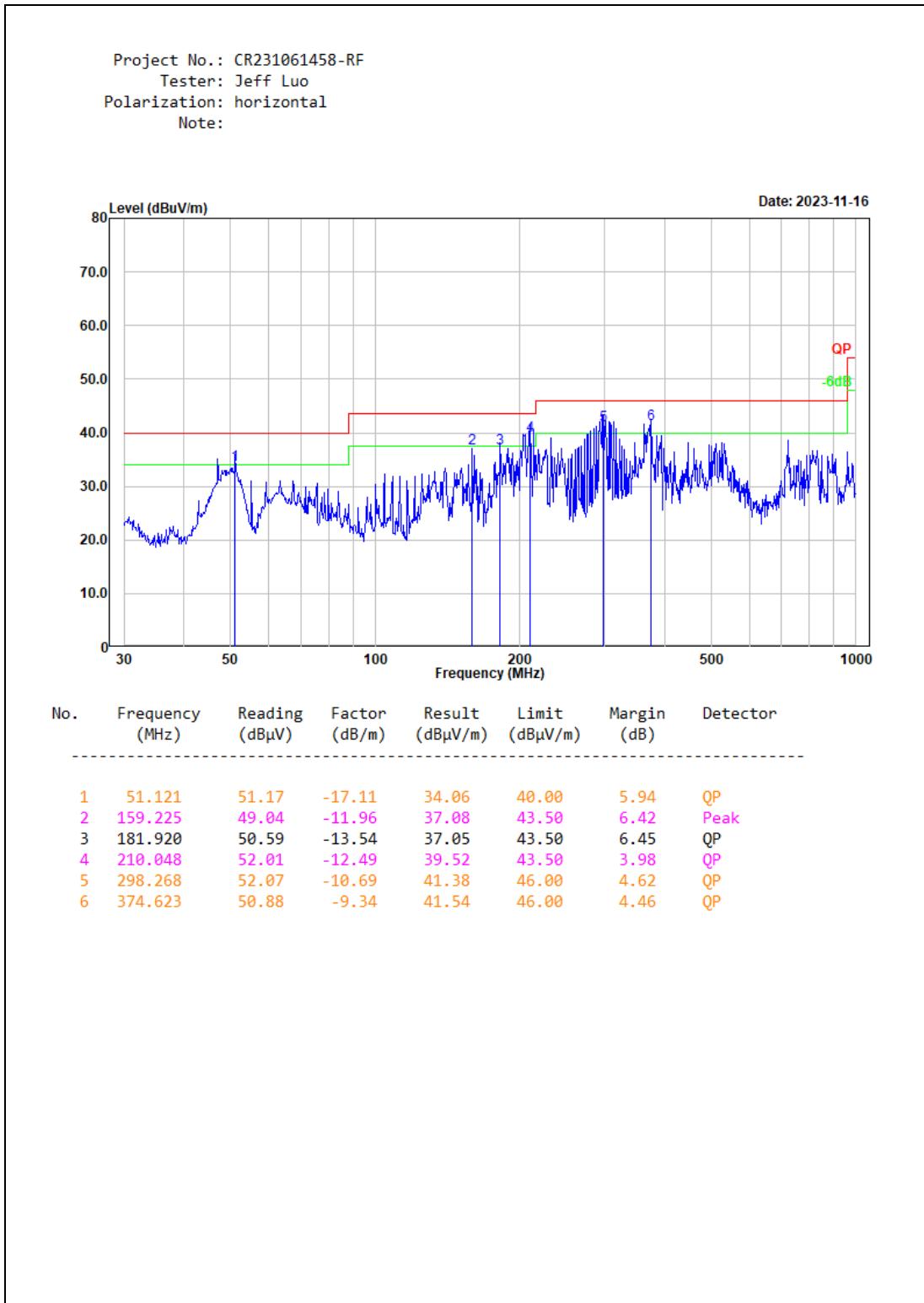
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	50.43	-15.39	35.04	40.00	4.96	QP
2	59.232	50.92	-17.32	33.60	40.00	6.40	QP
3	151.067	47.80	-11.95	35.85	43.50	7.65	Peak
4	302.481	50.10	-10.61	39.49	46.00	6.51	QP
5	378.584	48.17	-9.17	39.00	46.00	7.00	Peak
6	519.065	43.88	-5.84	38.04	46.00	7.96	Peak

Middle Channel:

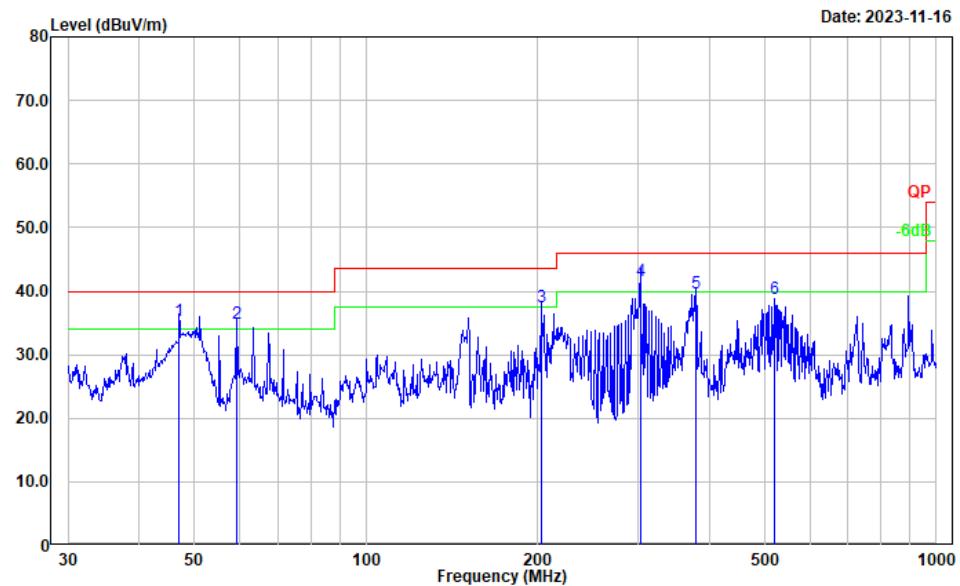
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



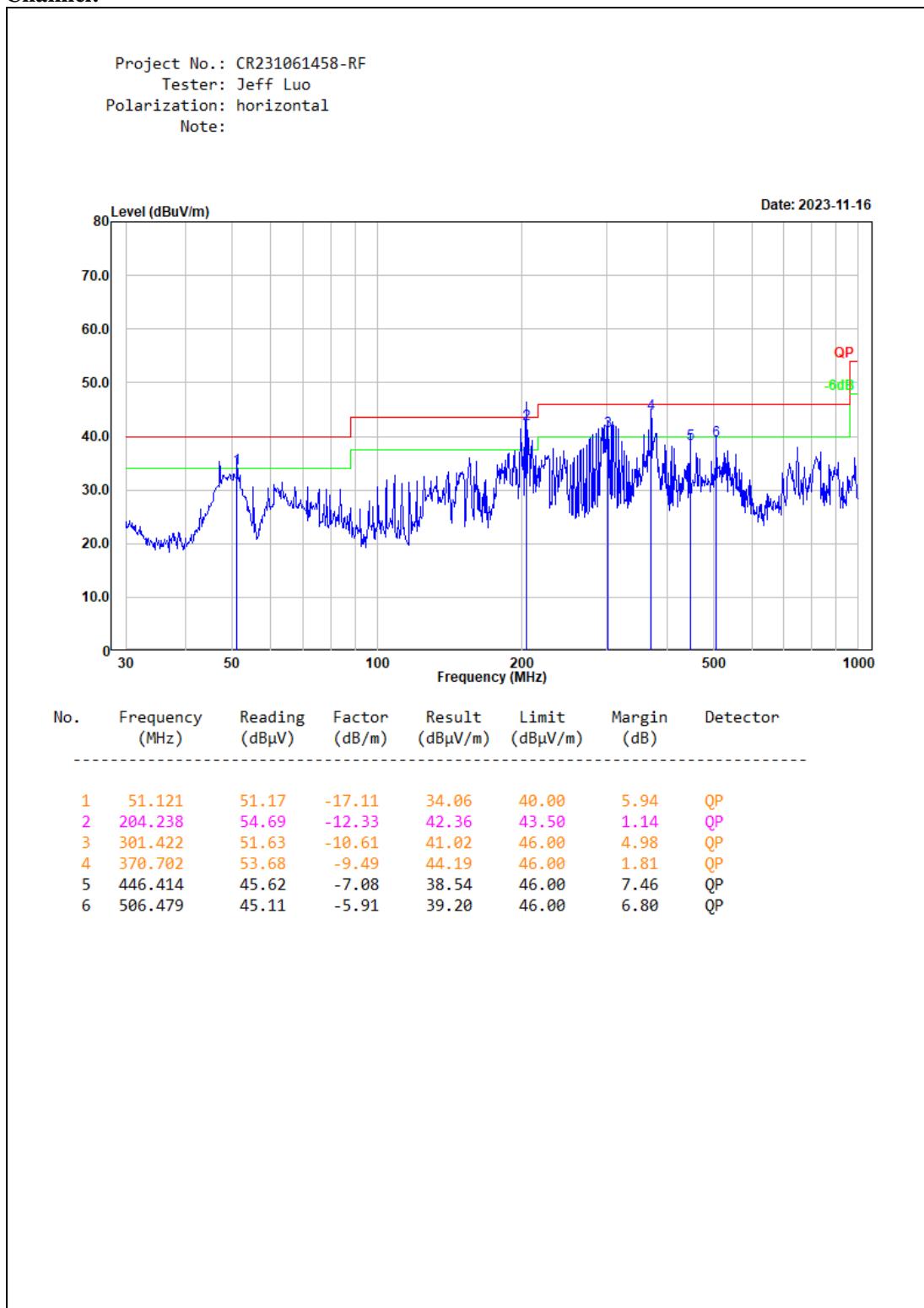
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	48.55	-15.39	33.16	40.00	6.84	QP
2	59.232	51.46	-17.32	34.14	40.00	5.86	QP
3	297.224	50.59	-10.71	39.88	46.00	6.12	QP
4	378.584	47.74	-9.17	38.57	46.00	7.43	QP
5	522.718	43.77	-5.87	37.90	46.00	8.10	Peak
6	744.866	41.77	-3.01	38.76	46.00	7.24	Peak

High Channel:

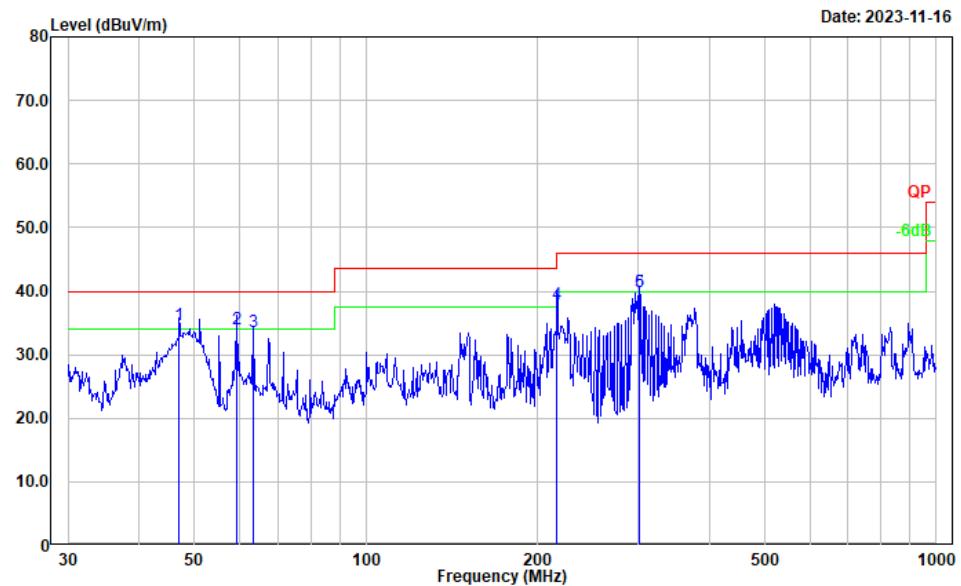
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



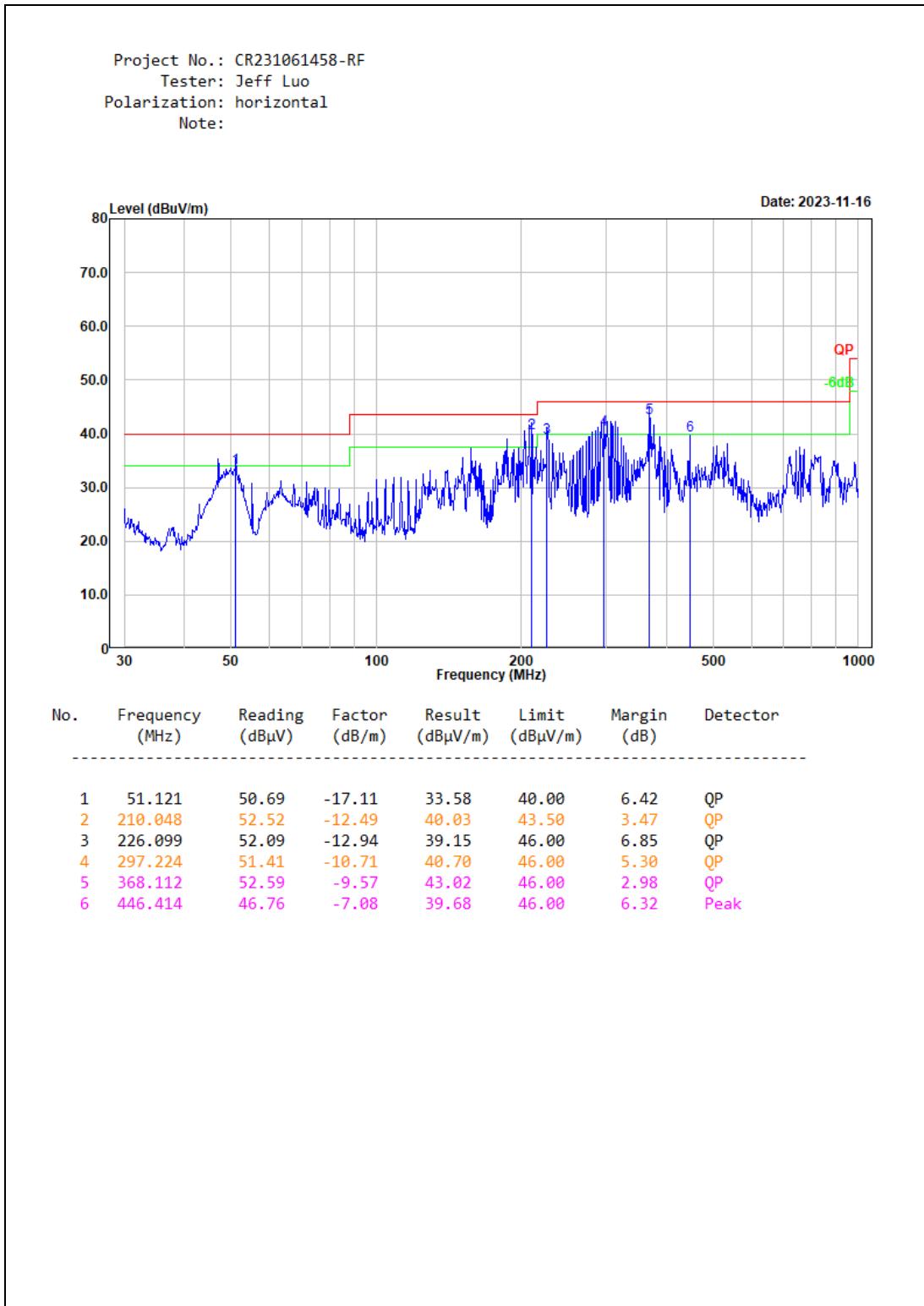
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	50.73	-15.39	35.34	40.00	4.66	QP
2	59.232	52.18	-17.32	34.86	40.00	5.14	QP
3	202.810	49.75	-12.30	37.45	43.50	6.05	QP
4	302.481	52.22	-10.61	41.61	46.00	4.39	QP
5	378.584	48.79	-9.17	39.62	46.00	6.38	QP
6	519.065	44.59	-5.84	38.75	46.00	7.25	Peak

5250-5350MHz, maximum output power mode, 802.11ax hew20 mode**Low Channel:**

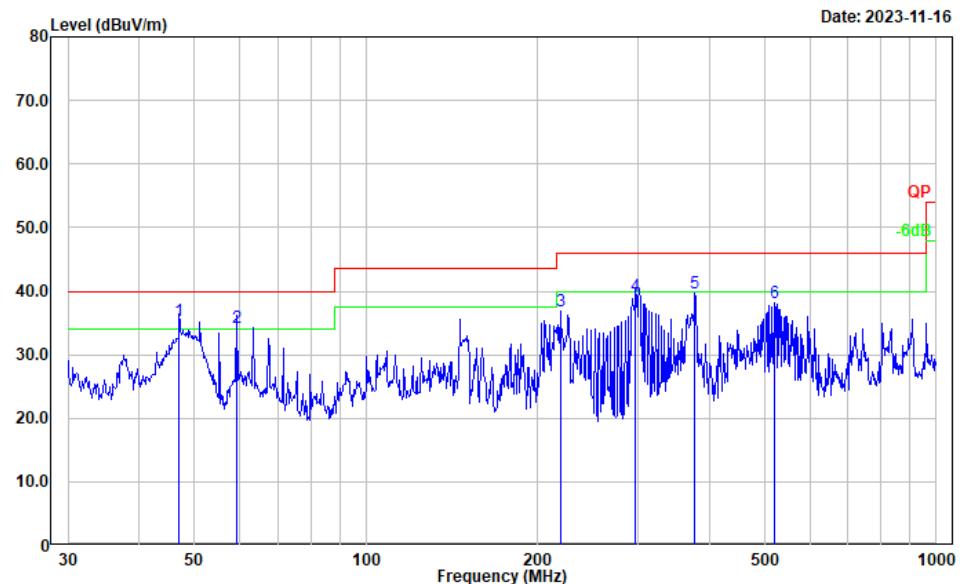
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



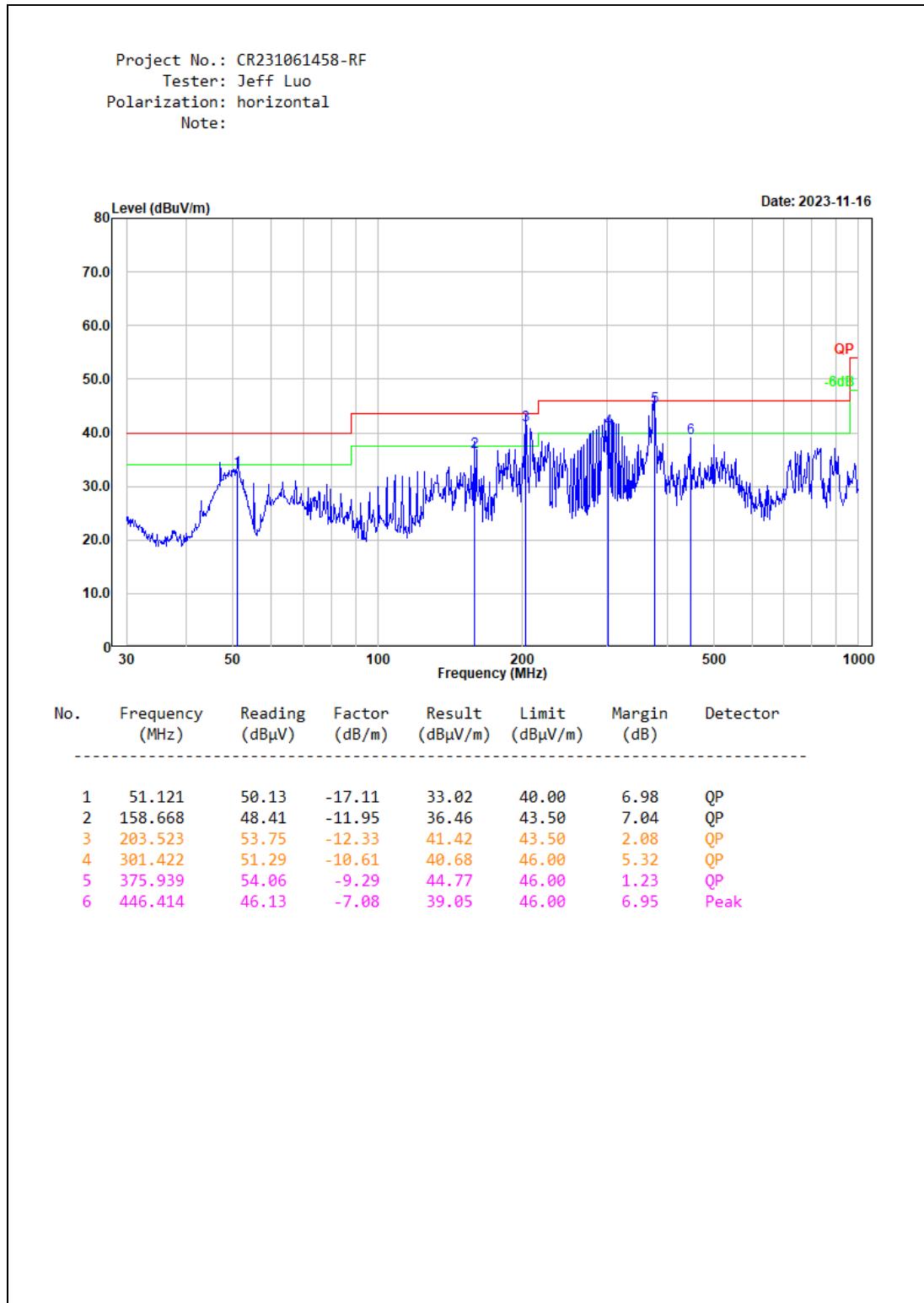
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	50.09	-15.39	34.70	40.00	5.30	QP
2	59.441	51.44	-17.31	34.13	40.00	5.87	QP
3	63.313	50.59	-17.06	33.53	40.00	6.47	QP
4	216.024	50.71	-12.68	38.03	46.00	7.97	QP
5	301.422	50.47	-10.61	39.86	46.00	6.14	QP
6	301.422	50.47	-10.61	39.86	46.00	6.14	QP

Middle Channel:

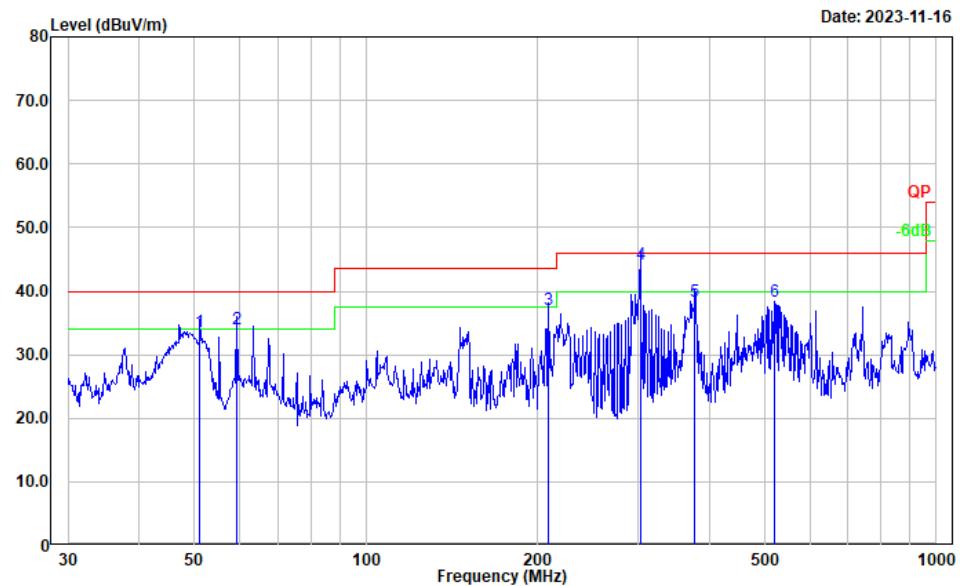
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



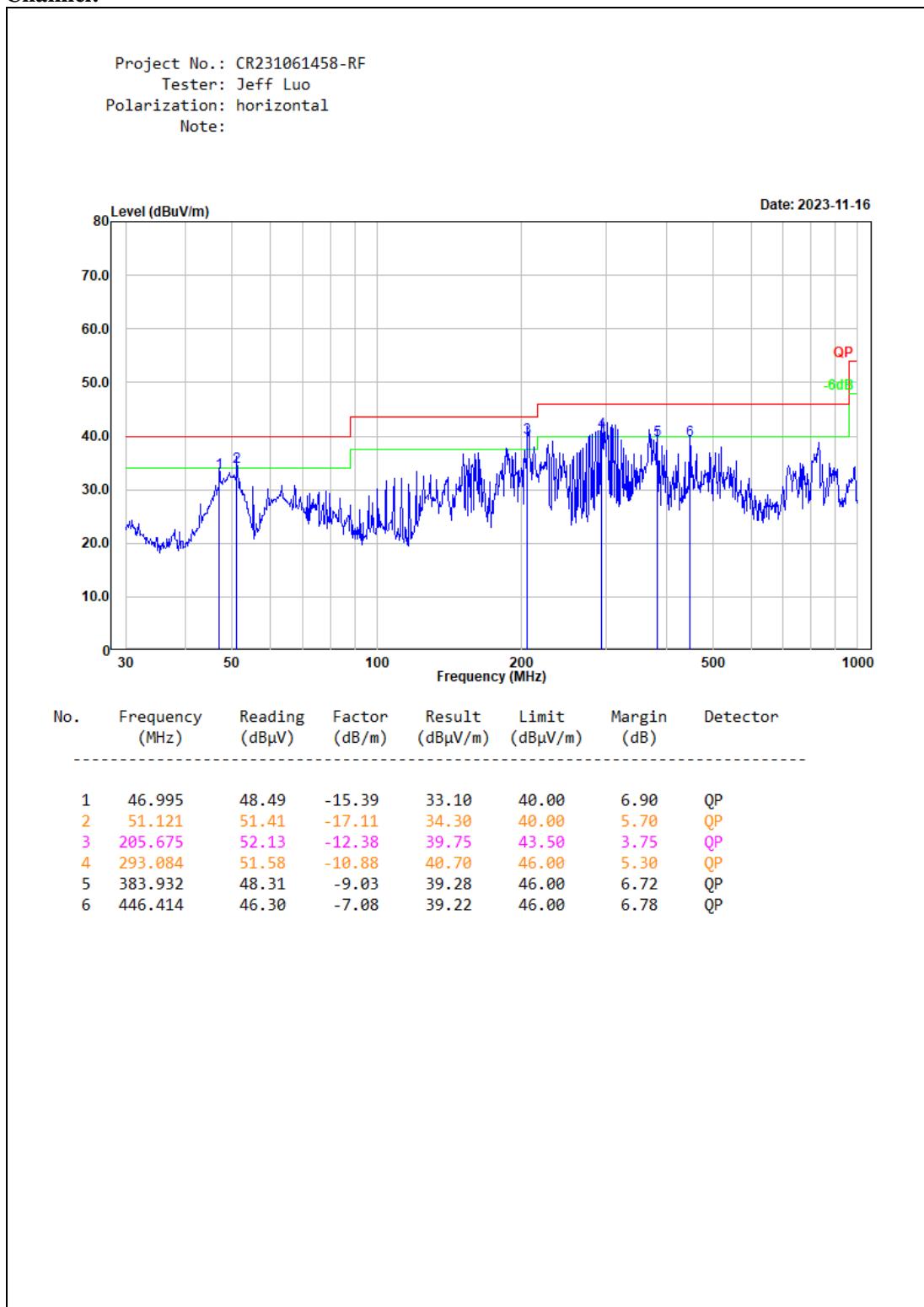
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	50.77	-15.39	35.38	40.00	4.62	QP
2	59.232	51.57	-17.32	34.25	40.00	5.75	QP
3	219.075	49.71	-12.82	36.89	46.00	9.11	Peak
4	297.224	50.04	-10.71	39.33	46.00	6.67	QP
5	377.259	48.80	-9.22	39.58	46.00	6.42	Peak
6	519.065	44.01	-5.84	38.17	46.00	7.83	Peak

High Channel:

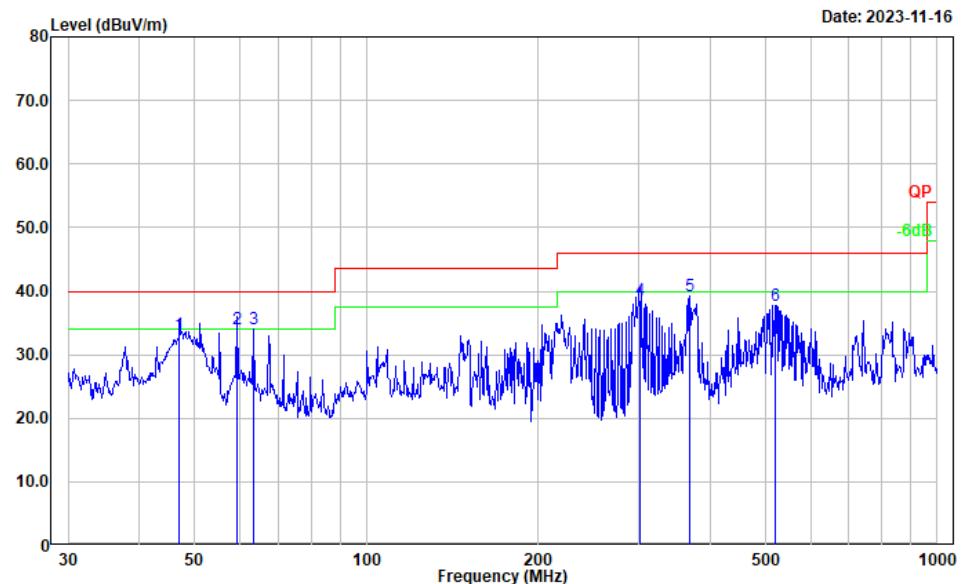
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



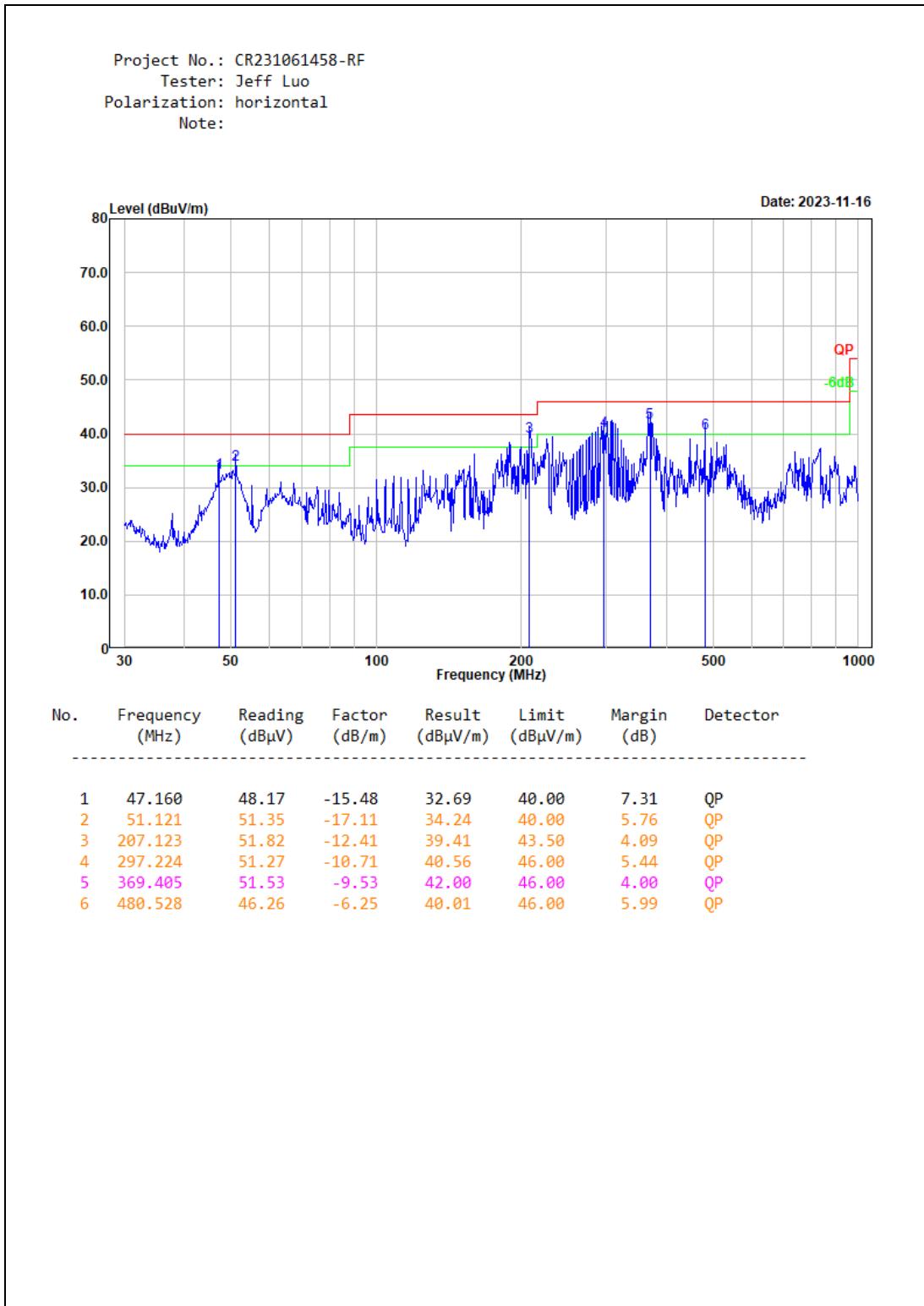
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	51.121	50.64	-17.11	33.53	40.00	6.47	QP
2	59.441	51.28	-17.31	33.97	40.00	6.03	QP
3	208.580	49.59	-12.46	37.13	43.50	6.37	QP
4	302.481	54.86	-10.61	44.25	46.00	1.75	QP
5	377.259	47.49	-9.22	38.27	46.00	7.73	QP
6	519.065	44.15	-5.84	38.31	46.00	7.69	Peak

5470-5725MHz, maximum output power mode, 802.11ax hew20 mode**Low Channel:**

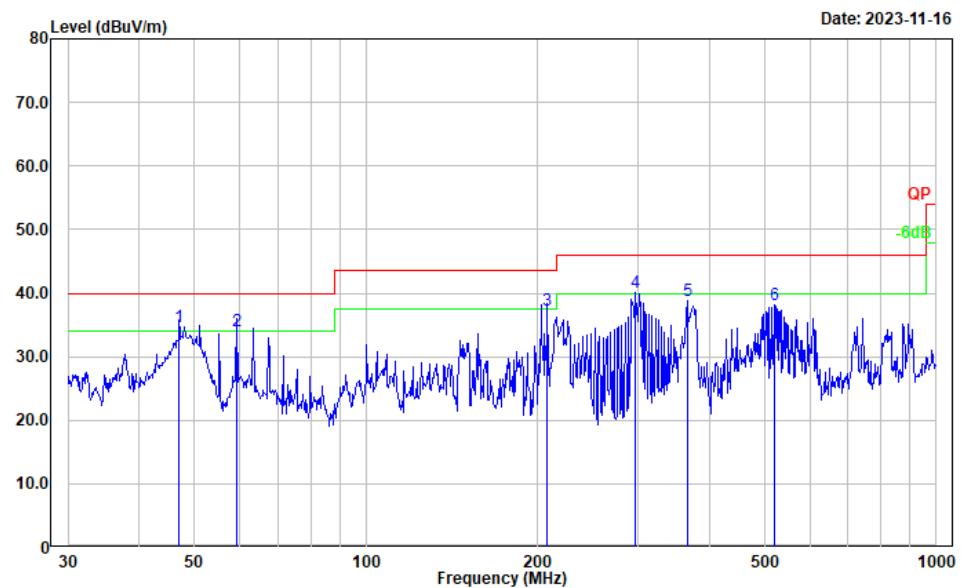
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



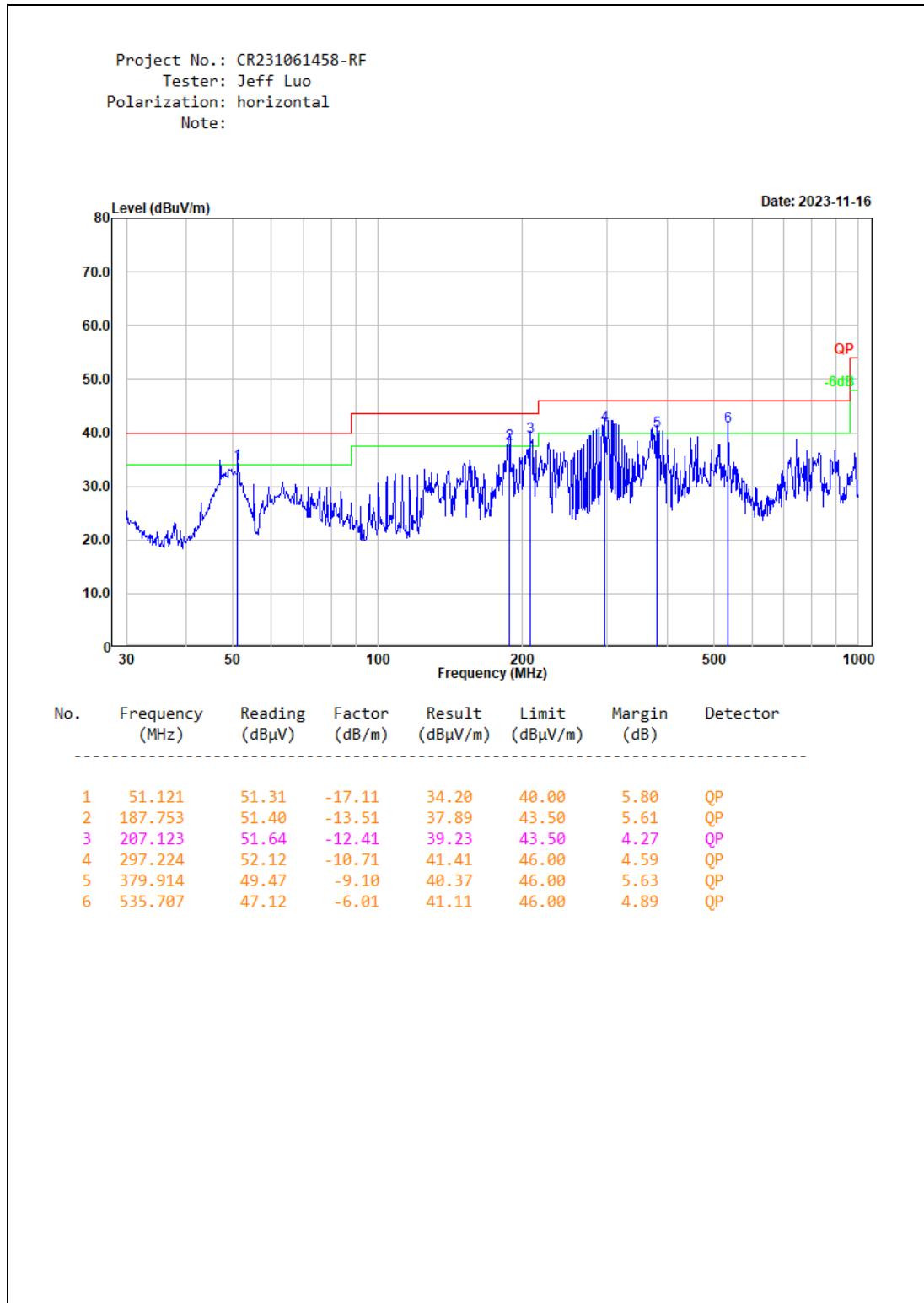
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	48.63	-15.39	33.24	40.00	6.76	QP
2	59.232	51.29	-17.32	33.97	40.00	6.03	QP
3	63.313	51.06	-17.06	34.00	40.00	6.00	Peak
4	301.422	49.17	-10.61	38.56	46.00	7.44	QP
5	368.112	48.79	-9.57	39.22	46.00	6.78	Peak
6	519.065	43.62	-5.84	37.78	46.00	8.22	Peak

Middle Channel:

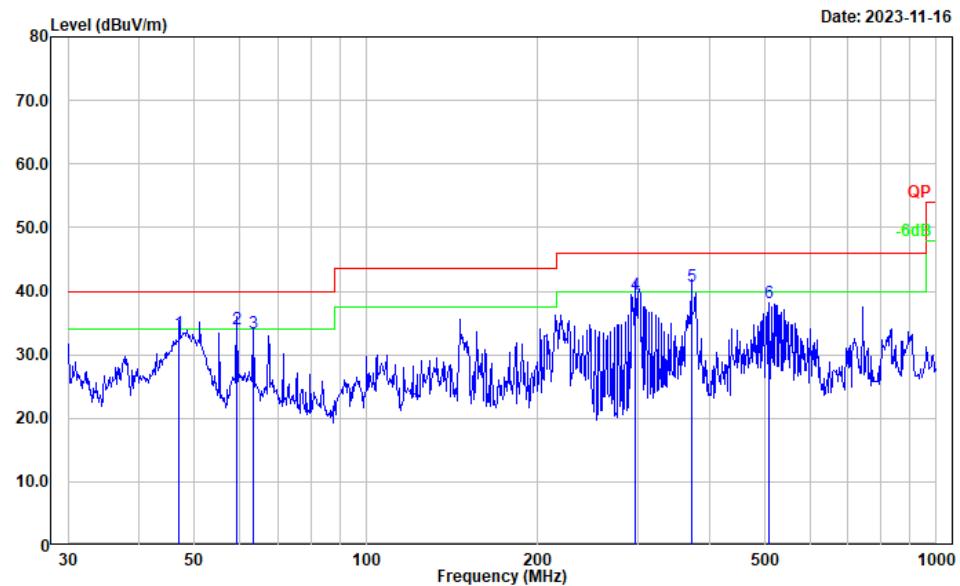
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	50.17	-15.39	34.78	40.00	5.22	QP
2	59.232	51.35	-17.32	34.03	40.00	5.97	QP
3	207.850	49.78	-12.45	37.33	43.50	6.17	QP
4	297.224	50.71	-10.71	40.00	46.00	6.00	Peak
5	365.539	48.44	-9.64	38.80	46.00	7.20	Peak
6	519.065	44.05	-5.84	38.21	46.00	7.79	Peak

High Channel:

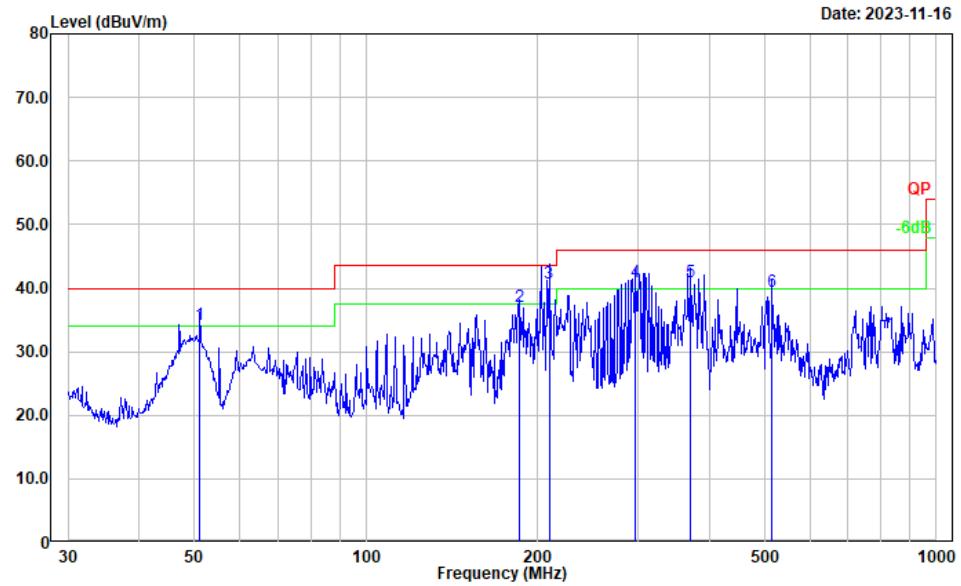
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	48.82	-15.39	33.43	40.00	6.57	QP
2	59.232	51.25	-17.32	33.93	40.00	6.07	QP
3	63.536	50.32	-17.03	33.29	40.00	6.71	QP
4	297.224	50.08	-10.71	39.37	46.00	6.63	QP
5	372.005	50.20	-9.45	40.75	46.00	5.25	QP
6	510.044	44.00	-5.81	38.19	46.00	7.81	Peak

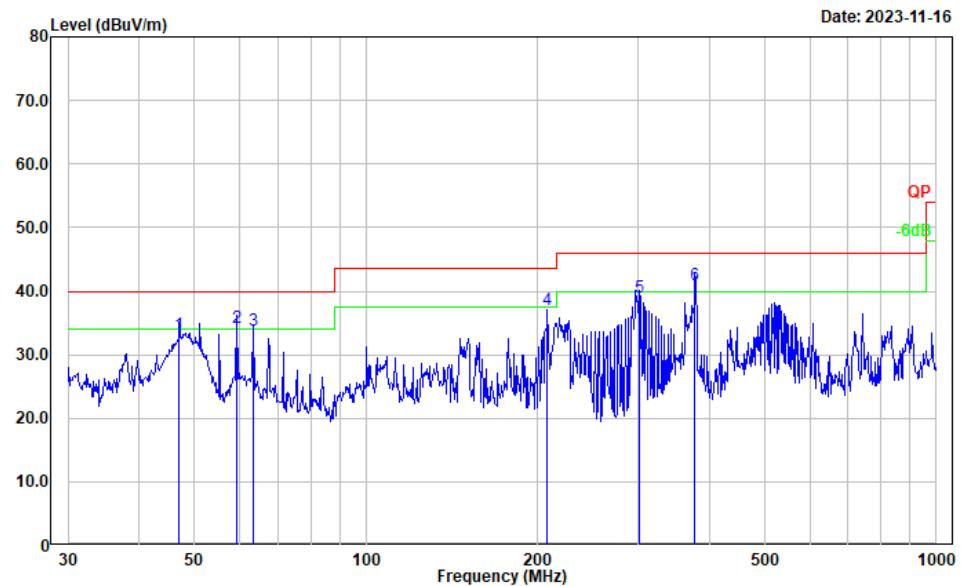
5725-5850MHz, maximum output power mode, 802.11n ht20 mode**Low Channel:**

Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: horizontal
Note:

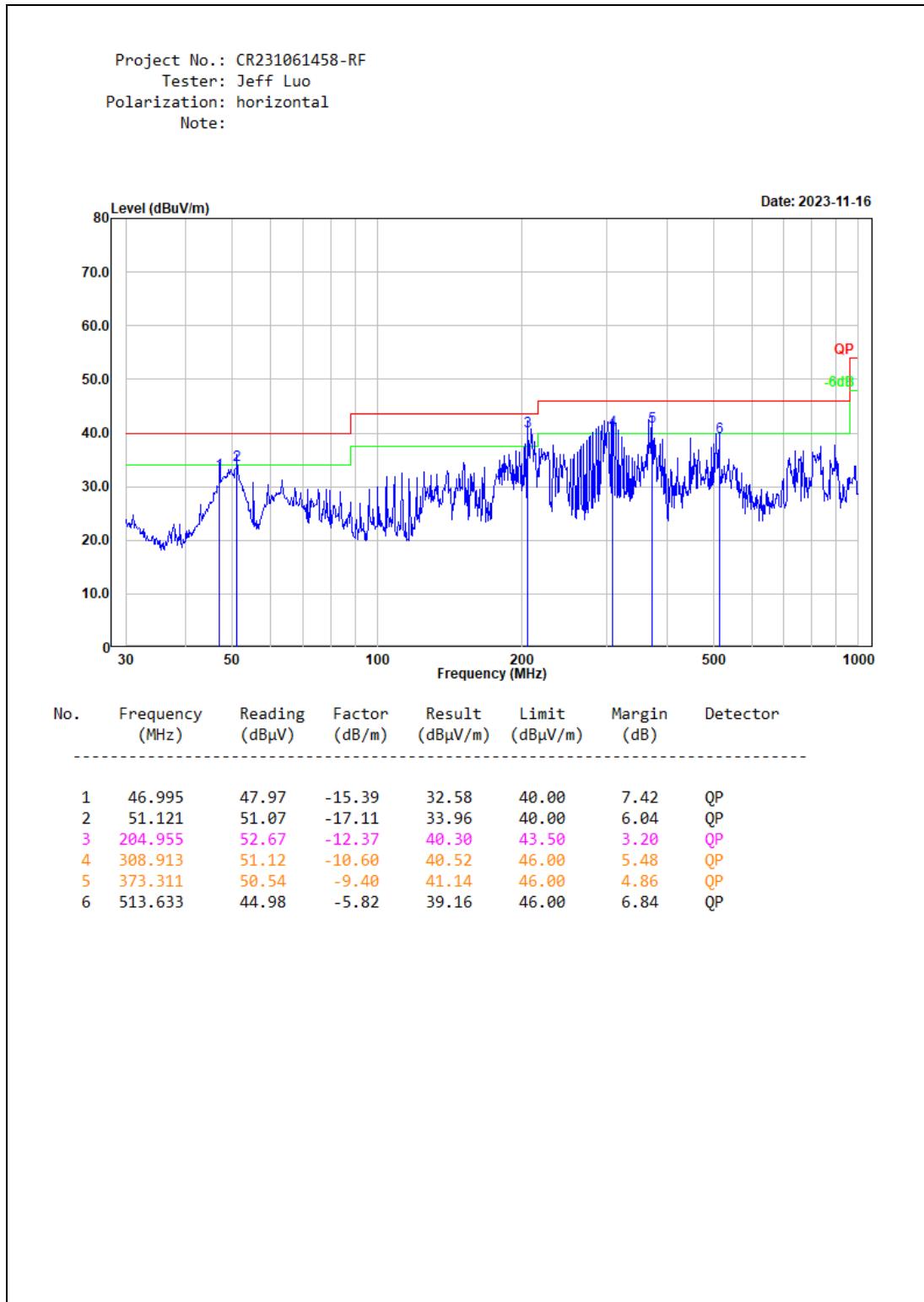


No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	51.121	51.28	-17.11	34.17	40.00	5.83	QP
2	185.788	50.66	-13.52	37.14	43.50	6.36	QP
3	209.313	53.29	-12.48	40.81	43.50	2.69	QP
4	297.224	51.67	-10.71	40.96	46.00	5.04	QP
5	370.702	50.53	-9.49	41.04	46.00	4.96	QP
6	515.437	45.32	-5.83	39.49	46.00	6.51	QP

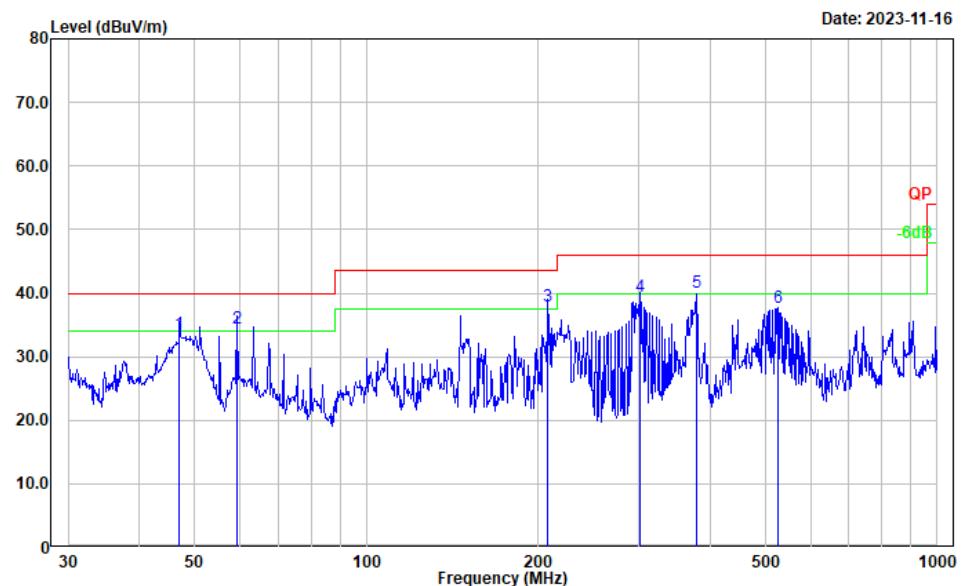
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



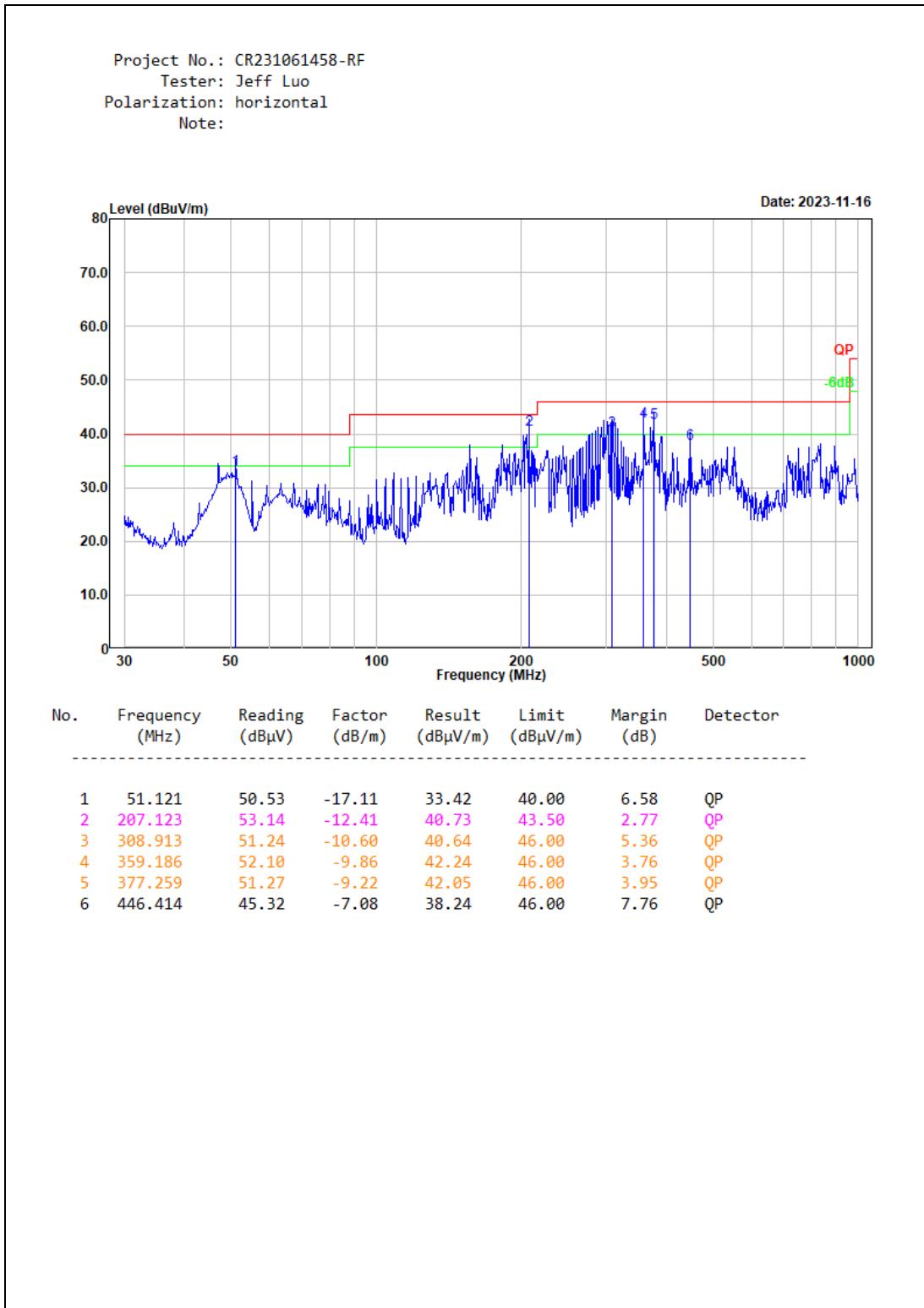
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	48.53	-15.39	33.14	40.00	6.86	QP
2	59.232	51.49	-17.32	34.17	40.00	5.83	QP
3	63.536	50.76	-17.03	33.73	40.00	6.27	QP
4	207.850	49.49	-12.45	37.04	43.50	6.46	Peak
5	301.422	49.67	-10.61	39.06	46.00	6.94	QP
6	377.259	50.14	-9.22	40.92	46.00	5.08	QP

Middle Channel:

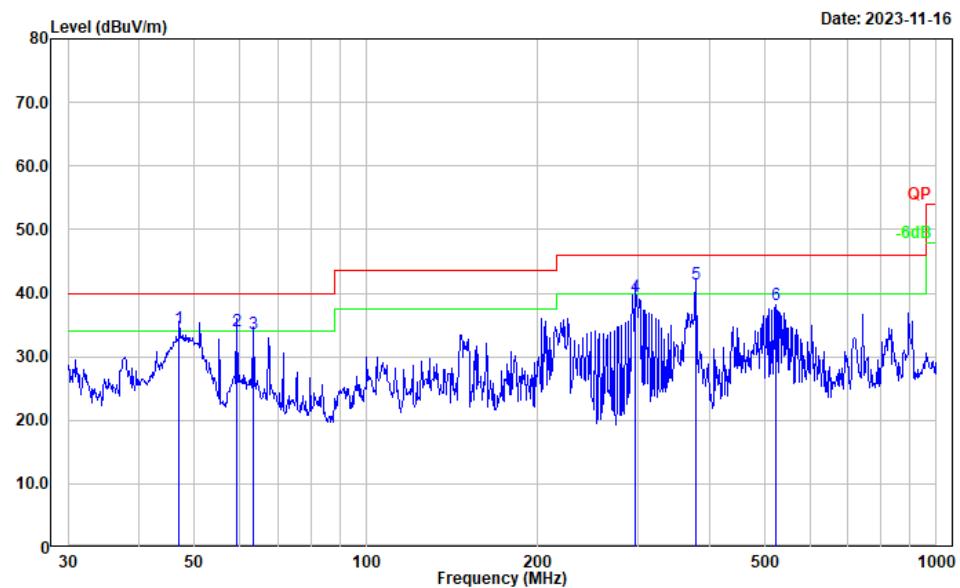
Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	48.95	-15.39	33.56	40.00	6.44	QP
2	59.232	51.69	-17.32	34.37	40.00	5.63	QP
3	207.850	50.46	-12.45	38.01	43.50	5.49	QP
4	301.422	50.09	-10.61	39.48	46.00	6.52	QP
5	378.584	49.17	-9.17	40.00	46.00	6.00	Peak
6	526.397	43.59	-5.91	37.68	46.00	8.32	Peak

High Channel:

Project No.: CR231061458-RF
Tester: Jeff Luo
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	46.995	49.96	-15.39	34.57	40.00	5.43	QP
2	59.232	51.41	-17.32	34.09	40.00	5.91	QP
3	63.536	50.64	-17.03	33.61	40.00	6.39	QP
4	297.224	50.13	-10.71	39.42	46.00	6.58	QP
5	378.584	50.51	-9.17	41.34	46.00	4.66	QP
6	522.718	44.04	-5.87	38.17	46.00	7.83	Peak

3) Radiation Spurious Emissions Test Data (1GHz-40GHz)*Note: Powered from Type-C port mode was performed to 1~40GHz Radiated Emission test.***5150-5250MHz:****802.11a Mode Chain 0:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5180 MHz							
5150.000	30.21	PK	H	32.83	63.04	74.00	10.96
5150.000	16.94	AV	H	32.83	49.77	54.00	4.23
5150.000	29.69	PK	V	32.83	62.52	74.00	11.48
5150.000	16.57	AV	V	32.83	49.40	54.00	4.60
10360.000	33.51	PK	H	14.45	47.96	68.20	20.24
10360.000	33.41	PK	V	14.45	47.86	68.20	20.34
15540.000	34.32	PK	H	18.60	52.92	74.00	21.08
15540.000	21.53	AV	H	18.60	40.13	54.00	13.87
15540.000	34.65	PK	V	18.60	53.25	74.00	20.75
15540.000	21.37	AV	V	18.60	39.97	54.00	14.03
Middle Channel: 5200 MHz							
10400.000	33.23	PK	H	14.52	47.75	68.20	20.45
10400.000	33.41	PK	V	14.52	47.93	68.20	20.27
15600.000	34.55	PK	H	18.69	53.24	74.00	20.76
15600.000	21.25	AV	H	18.69	39.94	54.00	14.06
15600.000	34.61	PK	V	18.69	53.30	74.00	20.70
15600.000	21.29	AV	V	18.69	39.98	54.00	14.02
High Channel: 5240 MHz							
5350.000	30.02	PK	H	32.70	62.72	74.00	11.28
5350.000	16.77	AV	H	32.70	49.47	54.00	4.53
5350.000	29.76	PK	V	32.70	62.46	74.00	11.54
5350.000	16.68	AV	V	32.70	49.38	54.00	4.62
10480.000	33.62	PK	H	14.40	48.02	68.20	20.18
10480.000	33.13	PK	V	14.40	47.53	68.20	20.67
15720.000	35.32	PK	H	18.80	54.12	74.00	19.88
15720.000	22.47	AV	H	18.80	41.27	54.00	12.73
15720.000	35.32	PK	V	18.80	54.12	74.00	19.88
15720.000	22.41	AV	V	18.80	41.21	54.00	12.79

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5180 MHz							
5150.000	30.56	PK	H	32.83	63.39	74.00	10.61
5150.000	16.93	AV	H	32.83	49.76	54.00	4.24
5150.000	30.05	PK	V	32.83	62.88	74.00	11.12
5150.000	16.77	AV	V	32.83	49.60	54.00	4.40
10360.000	33.23	PK	H	14.45	47.68	68.20	20.52
10360.000	33.03	PK	V	14.45	47.48	68.20	20.72
15540.000	34.25	PK	H	18.60	52.85	74.00	21.15
15540.000	21.47	AV	H	18.60	40.07	54.00	13.93
15540.000	34.38	PK	V	18.60	52.98	74.00	21.02
15540.000	21.51	AV	V	18.60	40.11	54.00	13.89
Middle Channel: 5200 MHz							
10400.000	32.93	PK	H	14.52	47.45	68.20	20.75
10400.000	33.16	PK	V	14.52	47.68	68.20	20.52
15600.000	35.21	PK	H	18.69	53.90	74.00	20.10
15600.000	22.12	AV	H	18.69	40.81	54.00	13.19
15600.000	34.98	PK	V	18.69	53.67	74.00	20.33
15600.000	22.06	AV	V	18.69	40.75	54.00	13.25
High Channel: 5240 MHz							
5350.000	29.90	PK	H	32.70	62.60	74.00	11.40
5350.000	16.67	AV	H	32.70	49.37	54.00	4.63
5350.000	29.82	PK	V	32.70	62.52	74.00	11.48
5350.000	16.52	AV	V	32.70	49.22	54.00	4.78
10480.000	33.62	PK	H	14.40	48.02	68.20	20.18
10480.000	33.38	PK	V	14.40	47.78	68.20	20.42
15720.000	35.39	PK	H	18.80	54.19	74.00	19.81
15720.000	22.40	AV	H	18.80	41.20	54.00	12.80
15720.000	35.26	PK	V	18.80	54.06	74.00	19.94
15720.000	22.18	AV	V	18.80	40.98	54.00	13.02

802.11n ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5180 MHz							
5150.000	29.78	PK	H	32.83	62.61	74.00	11.39
5150.000	16.55	AV	H	32.83	49.38	54.00	4.62
5150.000	29.64	PK	V	32.83	62.47	74.00	11.53
5150.000	16.54	AV	V	32.83	49.37	54.00	4.63
10360.000	32.86	PK	H	14.45	47.31	68.20	20.89
10360.000	33.51	PK	V	14.45	47.96	68.20	20.24
15540.000	33.17	PK	H	18.60	51.77	74.00	22.23
15540.000	20.15	AV	H	18.60	38.75	54.00	15.25
15540.000	33.65	PK	V	18.60	52.25	74.00	21.75
15540.000	20.46	AV	V	18.60	39.06	54.00	14.94
Middle Channel: 5200 MHz							
10400.000	32.41	PK	H	14.52	46.93	68.20	21.27
10400.000	32.76	PK	V	14.52	47.28	68.20	20.92
15600.000	34.26	PK	H	18.69	52.95	74.00	21.05
15600.000	21.47	AV	H	18.69	40.16	54.00	13.84
15600.000	34.59	PK	V	18.69	53.28	74.00	20.72
15600.000	21.76	AV	V	18.69	40.45	54.00	13.55
High Channel: 5240 MHz							
5350.000	30.01	PK	H	32.70	62.71	74.00	11.29
5350.000	16.75	AV	H	32.70	49.45	54.00	4.55
5350.000	29.89	PK	V	32.70	62.59	74.00	11.41
5350.000	16.84	AV	V	32.70	49.54	54.00	4.46
10480.000	33.28	PK	H	14.40	47.68	68.20	20.52
10480.000	33.37	PK	V	14.40	47.77	68.20	20.43
15720.000	35.82	PK	H	18.80	54.62	74.00	19.38
15720.000	22.31	AV	H	18.80	41.11	54.00	12.89
15720.000	34.88	PK	V	18.80	53.68	74.00	20.32
15720.000	21.85	AV	V	18.80	40.65	54.00	13.35

802.11n ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5190 MHz							
5150.000	32.23	PK	H	32.83	65.06	74.00	8.94
5150.000	17.12	AV	H	32.83	49.95	54.00	4.05
5150.000	31.02	PK	V	32.83	63.85	74.00	10.15
5150.000	16.85	AV	V	32.83	49.68	54.00	4.32
10380.000	33.12	PK	H	14.49	47.61	68.20	20.59
10380.000	32.96	PK	V	14.49	47.45	68.20	20.75
15570.000	34.20	PK	H	18.65	52.85	74.00	21.15
15570.000	21.55	AV	H	18.65	40.20	54.00	13.80
15570.000	34.39	PK	V	18.65	53.04	74.00	20.96
15570.000	21.10	AV	V	18.65	39.75	54.00	14.25
High Channel: 5230 MHz							
5350.000	29.69	PK	H	32.70	62.39	74.00	11.61
5350.000	16.85	AV	H	32.70	49.55	54.00	4.45
5350.000	29.63	PK	V	32.70	62.33	74.00	11.67
5350.000	16.37	AV	V	32.70	49.07	54.00	4.93
10460.000	33.29	PK	H	14.43	47.72	68.20	20.48
10460.000	33.23	PK	V	14.43	47.66	68.20	20.54
15690.000	34.37	PK	H	18.75	53.12	74.00	20.88
15690.000	21.27	AV	H	18.75	40.02	54.00	13.98
15690.000	34.30	PK	V	18.75	53.05	74.00	20.95
15690.000	21.18	AV	V	18.75	39.93	54.00	14.07

802.11ac vht80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Middle Channel: 5210 MHz							
5150.000	30.21	PK	H	32.83	63.04	74.00	10.96
5150.000	16.81	AV	H	32.83	49.64	54.00	4.36
5150.000	29.89	PK	V	32.83	62.72	74.00	11.28
5150.000	16.63	AV	V	32.83	49.46	54.00	4.54
5350.000	29.82	PK	H	32.70	62.52	74.00	11.48
5350.000	16.78	AV	H	32.70	49.48	54.00	4.52
5350.000	29.63	PK	V	32.70	62.33	74.00	11.67
5350.000	16.49	AV	V	32.70	49.19	54.00	4.81
10420.000	34.27	PK	H	14.49	48.76	68.20	19.44
10420.000	34.52	PK	V	14.49	49.01	68.20	19.19
15630.000	34.25	PK	H	18.71	52.96	74.00	21.04
15630.000	21.46	AV	H	18.71	40.17	54.00	13.83
15630.000	33.87	PK	V	18.71	52.58	74.00	21.42
15630.000	21.03	AV	V	18.71	39.74	54.00	14.26

802.11ax hew20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5180 MHz							
5150.000	30.07	PK	H	32.83	62.90	74.00	11.10
5150.000	16.43	AV	H	32.83	49.26	54.00	4.74
5150.000	30.97	PK	V	32.83	63.80	74.00	10.20
5150.000	17.10	AV	V	32.83	49.93	54.00	4.07
10360.000	33.41	PK	H	14.45	47.86	68.20	20.34
10360.000	34.06	PK	V	14.45	48.51	68.20	19.69
15540.000	34.58	PK	H	18.60	53.18	74.00	20.82
15540.000	21.31	AV	H	18.60	39.91	54.00	14.09
15540.000	34.79	PK	V	18.60	53.39	74.00	20.61
15540.000	21.53	AV	V	18.60	40.13	54.00	13.87
Middle Channel: 5200 MHz							
10400.000	33.64	PK	H	14.52	48.16	68.20	20.04
10400.000	34.01	PK	V	14.52	48.53	68.20	19.67
15600.000	35.32	PK	H	18.69	54.01	74.00	19.99
15600.000	22.66	AV	H	18.69	41.35	54.00	12.65
15600.000	34.95	PK	V	18.69	53.64	74.00	20.36
15600.000	21.23	AV	V	18.69	39.92	54.00	14.08
High Channel: 5240 MHz							
5350.000	29.44	PK	H	32.70	62.14	74.00	11.86
5350.000	16.34	AV	H	32.70	49.04	54.00	4.96
5350.000	30.01	PK	V	32.70	62.71	74.00	11.29
5350.000	16.67	AV	V	32.70	49.37	54.00	4.63
10480.000	34.10	PK	H	14.40	48.50	68.20	19.70
10480.000	33.89	PK	V	14.40	48.29	68.20	19.91
15720.000	34.63	PK	H	18.80	53.43	74.00	20.57
15720.000	21.58	AV	H	18.80	40.38	54.00	13.62
15720.000	35.11	PK	V	18.80	53.91	74.00	20.09
15720.000	22.85	AV	V	18.80	41.65	54.00	12.35

802.11ax hew40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5190 MHz							
5150.000	31.78	PK	H	32.83	64.61	74.00	9.39
5150.000	17.54	AV	H	32.83	50.37	54.00	3.63
5150.000	30.32	PK	V	32.83	63.15	74.00	10.85
5150.000	16.75	AV	V	32.83	49.58	54.00	4.42
10380.000	33.63	PK	H	14.49	48.12	68.20	20.08
10380.000	34.12	PK	V	14.49	48.61	68.20	19.59
15570.000	34.67	PK	H	18.65	53.32	74.00	20.68
15570.000	21.20	AV	H	18.65	39.85	54.00	14.15
15570.000	35.19	PK	V	18.65	53.84	74.00	20.16
15570.000	22.78	AV	V	18.65	41.43	54.00	12.57
High Channel: 5230 MHz							
5350.000	28.79	PK	H	32.70	61.49	74.00	12.51
5350.000	16.49	AV	H	32.70	49.19	54.00	4.81
5350.000	30.31	PK	V	32.70	63.01	74.00	10.99
5350.000	16.99	AV	V	32.70	49.69	54.00	4.31
10460.000	33.87	PK	H	14.43	48.30	68.20	19.90
10460.000	34.21	PK	V	14.43	48.64	68.20	19.56
15690.000	35.36	PK	H	18.75	54.11	74.00	19.89
15690.000	22.43	AV	H	18.75	41.18	54.00	12.82
15690.000	35.74	PK	V	18.75	54.49	74.00	19.51
15690.000	22.19	AV	V	18.75	40.94	54.00	13.06

802.11ax hew80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Middle Channel: 5210 MHz							
5150.000	29.87	PK	H	32.83	62.70	74.00	11.30
5150.000	16.11	AV	H	32.83	48.94	54.00	5.06
5150.000	28.63	PK	V	32.83	61.46	74.00	12.54
5150.000	16.01	AV	V	32.83	48.84	54.00	5.16
5350.000	30.21	PK	H	32.70	62.91	74.00	11.09
5350.000	16.55	AV	H	32.70	49.25	54.00	4.75
5350.000	30.37	PK	V	32.70	63.07	74.00	10.93
5350.000	16.79	AV	V	32.70	49.49	54.00	4.51
10420.000	35.27	PK	H	14.49	49.76	68.20	18.44
10420.000	34.77	PK	V	14.49	49.26	68.20	18.94
15630.000	35.69	PK	H	18.71	54.40	74.00	19.60
15630.000	22.46	AV	H	18.71	41.17	54.00	12.83
15630.000	34.89	PK	V	18.71	53.60	74.00	20.40
15630.000	21.35	AV	V	18.71	40.06	54.00	13.94

5250-5350MHz:**802.11a Mode Chain 0:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel:				5260	MHz		
5150.000	29.74	PK	H	32.83	62.57	74.00	11.43
5150.000	16.79	AV	H	32.83	49.62	54.00	4.38
5150.000	29.62	PK	V	32.83	62.45	74.00	11.55
5150.000	16.55	AV	V	32.83	49.38	54.00	4.62
10520.000	34.20	PK	H	14.51	48.71	68.20	19.49
10520.000	33.93	PK	V	14.51	48.44	68.20	19.76
15780.000	35.21	PK	H	18.90	54.11	74.00	19.89
15780.000	22.44	AV	H	18.90	41.34	54.00	12.66
15780.000	34.63	PK	V	18.90	53.53	74.00	20.47
15780.000	21.55	AV	V	18.90	40.45	54.00	13.55
Middle Channel:				5280	MHz		
10560.000	33.93	PK	H	14.79	48.72	68.20	19.48
10560.000	33.68	PK	V	14.79	48.47	68.20	19.73
15840.000	34.20	PK	H	19.10	53.30	74.00	20.70
15840.000	21.08	AV	H	19.10	40.18	54.00	13.82
15840.000	34.21	PK	V	19.10	53.31	74.00	20.69
15840.000	20.69	AV	V	19.10	39.79	54.00	14.21
High Channel:				5320	MHz		
5350.000	29.76	PK	H	32.70	62.46	74.00	11.54
5350.000	16.88	AV	H	32.70	49.58	54.00	4.42
5350.000	29.63	PK	V	32.70	62.33	74.00	11.67
5350.000	16.78	AV	V	32.70	49.48	54.00	4.52
10640.000	33.89	PK	H	15.11	49.00	74.00	25.00
10640.000	20.10	AV	H	15.11	35.21	54.00	18.79
10640.000	34.05	PK	V	15.11	49.16	74.00	24.84
10640.000	20.72	AV	V	15.11	35.83	54.00	18.17
15960.000	34.23	PK	H	19.22	53.45	74.00	20.55
15960.000	21.52	AV	H	19.22	40.74	54.00	13.26
15960.000	33.87	PK	V	19.22	53.09	74.00	20.91
15960.000	21.47	AV	V	19.22	40.69	54.00	13.31

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5260 MHz							
5150.000	29.66	PK	H	32.83	62.49	74.00	11.51
5150.000	16.87	AV	H	32.83	49.70	54.00	4.30
5150.000	29.47	PK	V	32.83	62.30	74.00	11.70
5150.000	16.83	AV	V	32.83	49.66	54.00	4.34
10520.000	33.93	PK	H	14.51	48.44	68.20	19.76
10520.000	33.81	PK	V	14.51	48.32	68.20	19.88
15780.000	34.20	PK	H	18.90	53.10	74.00	20.90
15780.000	20.82	AV	H	18.90	39.72	54.00	14.28
15780.000	33.78	PK	V	18.90	52.68	74.00	21.32
15780.000	20.55	AV	V	18.90	39.45	54.00	14.55
Middle Channel: 5280 MHz							
10560.000	34.12	PK	H	14.79	48.91	68.20	19.29
10560.000	33.79	PK	V	14.79	48.58	68.20	19.62
15840.000	34.62	PK	H	19.10	53.72	74.00	20.28
15840.000	21.51	AV	H	19.10	40.61	54.00	13.39
15840.000	34.53	PK	V	19.10	53.63	74.00	20.37
15840.000	21.50	AV	V	19.10	40.60	54.00	13.40
High Channel: 5320 MHz							
5350.000	29.82	PK	H	32.70	62.52	74.00	11.48
5350.000	16.55	AV	H	32.70	49.25	54.00	4.75
5350.000	28.93	PK	V	32.70	61.63	74.00	12.37
5350.000	16.36	AV	V	32.70	49.06	54.00	4.94
10640.000	33.68	PK	H	15.11	48.79	74.00	25.21
10640.000	20.75	AV	H	15.11	35.86	54.00	18.14
10640.000	33.52	PK	V	15.11	48.63	74.00	25.37
10640.000	20.34	AV	V	15.11	35.45	54.00	18.55
15960.000	33.89	PK	H	19.22	53.11	74.00	20.89
15960.000	21.05	AV	H	19.22	40.27	54.00	13.73
15960.000	33.63	PK	V	19.22	52.85	74.00	21.15
15960.000	20.86	AV	V	19.22	40.08	54.00	13.92

802.11n ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5260 MHz							
5150.000	29.71	PK	H	32.83	62.54	74.00	11.46
5150.000	16.65	AV	H	32.83	49.48	54.00	4.52
5150.000	29.63	PK	V	32.83	62.46	74.00	11.54
5150.000	16.40	AV	V	32.83	49.23	54.00	4.77
10520.000	34.02	PK	H	14.51	48.53	68.20	19.67
10520.000	33.96	PK	V	14.51	48.47	68.20	19.73
15780.000	35.63	PK	H	18.90	54.53	74.00	19.47
15780.000	22.25	AV	H	18.90	41.15	54.00	12.85
15780.000	34.66	PK	V	18.90	53.56	74.00	20.44
15780.000	21.40	AV	V	18.90	40.30	54.00	13.70
Middle Channel: 5280 MHz							
10560.000	33.83	PK	H	14.79	48.62	68.20	19.58
10560.000	33.62	PK	V	14.79	48.41	68.20	19.79
15840.000	35.11	PK	H	19.10	54.21	74.00	19.79
15840.000	21.84	AV	H	19.10	40.94	54.00	13.06
15840.000	34.69	PK	V	19.10	53.79	74.00	20.21
15840.000	21.54	AV	V	19.10	40.64	54.00	13.36
High Channel: 5320 MHz							
5350.000	29.77	PK	H	32.70	62.47	74.00	11.53
5350.000	16.63	AV	H	32.70	49.33	54.00	4.67
5350.000	29.68	PK	V	32.70	62.38	74.00	11.62
5350.000	16.45	AV	V	32.70	49.15	54.00	4.85
10640.000	34.05	PK	H	15.11	49.16	74.00	24.84
10640.000	20.68	AV	H	15.11	35.79	54.00	18.21
10640.000	33.66	PK	V	15.11	48.77	74.00	25.23
10640.000	20.42	AV	V	15.11	35.53	54.00	18.47
15960.000	34.84	PK	H	19.22	54.06	74.00	19.94
15960.000	21.55	AV	H	19.22	40.77	54.00	13.23
15960.000	34.32	PK	V	19.22	53.54	74.00	20.46
15960.000	21.08	AV	V	19.22	40.30	54.00	13.70

802.11n ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5270 MHz							
5150.000	29.60	PK	H	32.83	62.43	74.00	11.57
5150.000	16.84	AV	H	32.83	49.67	54.00	4.33
5150.000	29.36	PK	V	32.83	62.19	74.00	11.81
5150.000	16.81	AV	V	32.83	49.64	54.00	4.36
10540.000	34.12	PK	H	14.66	48.78	68.20	19.42
10540.000	33.94	PK	V	14.66	48.60	68.20	19.60
15810.000	33.79	PK	H	18.98	52.77	74.00	21.23
15810.000	21.03	AV	H	18.98	40.01	54.00	13.99
15810.000	33.55	PK	V	18.98	52.53	74.00	21.47
15810.000	20.87	AV	V	18.98	39.85	54.00	14.15
High Channel: 5310 MHz							
5350.000	35.68	PK	H	32.70	68.38	74.00	5.62
5350.000	18.45	AV	H	32.70	51.15	54.00	2.85
5350.000	32.77	PK	V	32.70	65.47	74.00	8.53
5350.000	17.11	AV	V	32.70	49.81	54.00	4.19
10620.000	34.11	PK	H	15.09	49.20	74.00	24.80
10620.000	20.69	AV	H	15.09	35.78	54.00	18.22
10620.000	34.09	PK	V	15.09	49.18	74.00	24.82
10620.000	20.54	AV	V	15.09	35.63	54.00	18.37
15930.000	33.89	PK	H	19.28	53.17	74.00	20.83
15930.000	21.23	AV	H	19.28	40.51	54.00	13.49
15930.000	33.46	PK	V	19.28	52.74	74.00	21.26
15930.000	20.83	AV	V	19.28	40.11	54.00	13.89

802.11ac vht80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Middle Channel: 5290 MHz							
5150.000	29.69	PK	H	32.83	62.52	74.00	11.48
5150.000	16.87	AV	H	32.83	49.70	54.00	4.30
5150.000	29.66	PK	V	32.83	62.49	74.00	11.51
5150.000	16.79	AV	V	32.83	49.62	54.00	4.38
5350.000	30.23	PK	H	32.70	62.93	74.00	11.07
5350.000	16.93	AV	H	32.70	49.63	54.00	4.37
5350.000	29.34	PK	V	32.70	62.04	74.00	11.96
5350.000	16.77	AV	V	32.70	49.47	54.00	4.53
10580.000	33.69	PK	H	14.94	48.63	68.20	19.57
10580.000	33.49	PK	V	14.94	48.43	68.20	19.77
15870.000	33.69	PK	H	19.21	52.90	74.00	21.10
15870.000	20.82	AV	H	19.21	40.03	54.00	13.97
15870.000	33.64	PK	V	19.21	52.85	74.00	21.15
15870.000	21.62	AV	V	19.21	40.83	54.00	13.17

802.11ax hew20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5260 MHz							
5150.000	30.01	PK	H	32.83	62.84	74.00	11.16
5150.000	16.22	AV	H	32.83	49.05	54.00	4.95
5150.000	30.85	PK	V	32.83	63.68	74.00	10.32
5150.000	16.84	AV	V	32.83	49.67	54.00	4.33
10520.000	35.01	PK	H	14.51	49.52	68.20	18.68
10520.000	34.53	PK	V	14.51	49.04	68.20	19.16
15780.000	34.08	PK	H	18.90	52.98	74.00	21.02
15780.000	21.34	AV	H	18.90	40.24	54.00	13.76
15780.000	34.28	PK	V	18.90	53.18	74.00	20.82
15780.000	21.73	AV	V	18.90	40.63	54.00	13.37
Middle Channel: 5280 MHz							
10560.000	34.10	PK	H	14.79	48.89	68.20	19.31
10560.000	34.89	PK	V	14.79	49.68	68.20	18.52
15840.000	34.79	PK	H	19.10	53.89	74.00	20.11
15840.000	21.35	AV	H	19.10	40.45	54.00	13.55
15840.000	33.66	PK	V	19.10	52.76	74.00	21.24
15840.000	20.28	AV	V	19.10	39.38	54.00	14.62
High Channel: 5320 MHz							
5350.000	30.55	PK	H	32.70	63.25	74.00	10.75
5350.000	16.84	AV	H	32.70	49.54	54.00	4.46
5350.000	30.28	PK	V	32.70	62.98	74.00	11.02
5350.000	16.08	AV	V	32.70	48.78	54.00	5.22
10640.000	35.16	PK	H	15.11	50.27	74.00	23.73
10640.000	22.34	AV	H	15.11	37.45	54.00	16.55
10640.000	34.26	PK	V	15.11	49.37	74.00	24.63
10640.000	21.78	AV	V	15.11	36.89	54.00	17.11
15960.000	35.41	PK	H	19.22	54.63	74.00	19.37
15960.000	22.33	AV	H	19.22	41.55	54.00	12.45
15960.000	34.96	PK	V	19.22	54.18	74.00	19.82
15960.000	21.04	AV	V	19.22	40.26	54.00	13.74

802.11ax hew40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5270 MHz							
5150.000	30.13	PK	H	32.83	62.96	74.00	11.04
5150.000	16.54	AV	H	32.83	49.37	54.00	4.63
5150.000	30.96	PK	V	32.83	63.79	74.00	10.21
5150.000	16.32	AV	V	32.83	49.15	54.00	4.85
10540.000	33.74	PK	H	14.66	48.40	68.20	19.80
10540.000	34.10	PK	V	14.66	48.76	68.20	19.44
15810.000	34.65	PK	H	18.98	53.63	74.00	20.37
15810.000	21.87	AV	H	18.98	40.85	54.00	13.15
15810.000	33.96	PK	V	18.98	52.94	74.00	21.06
15810.000	21.03	AV	V	18.98	40.01	54.00	13.99
High Channel: 5310 MHz							
5350.000	33.64	PK	H	32.70	66.34	74.00	7.66
5350.000	18.20	AV	H	32.70	50.90	54.00	3.10
5350.000	31.78	PK	V	32.70	64.48	74.00	9.52
5350.000	16.84	AV	V	32.70	49.54	54.00	4.46
10620.000	35.44	PK	H	15.09	50.53	74.00	23.47
10620.000	22.06	AV	H	15.09	37.15	54.00	16.85
10620.000	34.74	PK	V	15.09	49.83	74.00	24.17
10620.000	21.36	AV	V	15.09	36.45	54.00	17.55
15930.000	34.55	PK	H	19.28	53.83	74.00	20.17
15930.000	21.78	AV	H	19.28	41.06	54.00	12.94
15930.000	34.20	PK	V	19.28	53.48	74.00	20.52
15930.000	21.11	AV	V	19.28	40.39	54.00	13.61

802.11ax hew80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Middle Channel: 5290 MHz							
5150.000	30.11	PK	H	32.83	62.94	74.00	11.06
5150.000	16.97	AV	H	32.83	49.80	54.00	4.20
5150.000	30.23	PK	V	32.83	63.06	74.00	10.94
5150.000	16.29	AV	V	32.83	49.12	54.00	4.88
5350.000	29.01	PK	H	32.70	61.71	74.00	12.29
5350.000	16.33	AV	H	32.70	49.03	54.00	4.97
5350.000	30.27	PK	V	32.70	62.97	74.00	11.03
5350.000	16.94	AV	V	32.70	49.64	54.00	4.36
10580.000	34.10	PK	H	14.94	49.04	68.20	19.16
10580.000	34.58	PK	V	14.94	49.52	68.20	18.68
15870.000	34.10	PK	H	19.21	53.31	74.00	20.69
15870.000	21.05	AV	H	19.21	40.26	54.00	13.74
15870.000	33.97	PK	V	19.21	53.18	74.00	20.82
15870.000	20.66	AV	V	19.21	39.87	54.00	14.13

5470-5725MHz**802.11a Mode Chain 0:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel:				5500	MHz		
5470.000	29.69	PK	H	32.62	62.31	68.20	5.89
5470.000	29.63	PK	V	32.62	62.25	68.20	5.95
11000.000	33.63	PK	H	15.51	49.14	74.00	24.86
11000.000	20.56	AV	H	15.51	36.07	54.00	17.93
11000.000	33.14	PK	V	15.51	48.65	74.00	25.35
11000.000	20.17	AV	V	15.51	35.68	54.00	18.32
16500.000	35.20	PK	H	19.91	55.11	68.20	13.09
16500.000	34.11	PK	V	19.91	54.02	68.20	14.18
Middle Channel:				5580	MHz		
11160.000	33.35	PK	H	15.36	48.71	74.00	25.29
11160.000	20.72	AV	H	15.36	36.08	54.00	17.92
11160.000	33.29	PK	V	15.36	48.65	74.00	25.35
11160.000	20.51	AV	V	15.36	35.87	54.00	18.13
16740.000	35.51	PK	H	20.57	56.08	68.20	12.12
16740.000	35.29	PK	V	20.57	55.86	68.20	12.34
High Channel:				5700	MHz		
5725.000	30.11	PK	H	33.03	63.14	68.20	5.06
5725.000	30.05	PK	V	33.03	63.08	68.20	5.12
11400.000	33.82	PK	H	15.89	49.71	74.00	24.29
11400.000	21.55	AV	H	15.89	37.44	54.00	16.56
11400.000	33.64	PK	V	15.89	49.53	74.00	24.47
11400.000	20.65	AV	V	15.89	36.54	54.00	17.46
17100.000	35.68	PK	H	22.49	58.17	68.20	10.03
17100.000	35.10	PK	H	22.49	57.59	68.20	10.61

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5500 MHz							
5470.000	30.14	PK	H	32.62	62.76	68.20	5.44
5470.000	30.11	PK	V	32.62	62.73	68.20	5.47
11000.000	34.31	PK	H	15.51	49.82	74.00	24.18
11000.000	21.55	AV	H	15.51	37.06	54.00	16.94
11000.000	34.28	PK	V	15.51	49.79	74.00	24.21
11000.000	21.36	AV	V	15.51	36.87	54.00	17.13
16500.000	34.69	PK	H	19.91	54.60	68.20	13.60
16500.000	34.22	PK	V	19.91	54.13	68.20	14.07
Middle Channel: 5580 MHz							
11160.000	34.10	PK	H	15.36	49.46	74.00	24.54
11160.000	20.52	AV	H	15.36	35.88	54.00	18.12
11160.000	33.89	PK	V	15.36	49.25	74.00	24.75
11160.000	20.44	AV	V	15.36	35.80	54.00	18.20
16740.000	35.26	PK	H	20.57	55.83	68.20	12.37
16740.000	34.96	PK	V	20.57	55.53	68.20	12.67
High Channel: 5700 MHz							
5725.000	29.87	PK	H	33.03	62.90	68.20	5.30
5725.000	29.83	PK	V	33.03	62.86	68.20	5.34
11400.000	33.96	PK	H	15.89	49.85	74.00	24.15
11400.000	21.55	AV	H	15.89	37.44	54.00	16.56
11400.000	33.67	PK	V	15.89	49.56	74.00	24.44
11400.000	21.37	AV	V	15.89	37.26	54.00	16.74
17100.000	35.21	PK	H	22.49	57.70	68.20	10.50
17100.000	35.16	PK	H	22.49	57.65	68.20	10.55

802.11n ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5500 MHz							
5470.000	32.12	PK	H	32.62	64.74	68.20	3.46
5470.000	31.20	PK	V	32.62	63.82	68.20	4.38
11000.000	34.29	PK	H	15.51	49.80	74.00	24.20
11000.000	21.55	AV	H	15.51	37.06	54.00	16.94
11000.000	33.96	PK	V	15.51	49.47	74.00	24.53
11000.000	21.20	AV	V	15.51	36.71	54.00	17.29
16500.000	34.36	PK	H	19.91	54.27	68.20	13.93
16500.000	33.79	PK	V	19.91	53.70	68.20	14.50
Middle Channel: 5580 MHz							
11160.000	34.98	PK	H	15.36	50.34	74.00	23.66
11160.000	21.69	AV	H	15.36	37.05	54.00	16.95
11160.000	34.67	PK	V	15.36	50.03	74.00	23.97
11160.000	21.46	AV	V	15.36	36.82	54.00	17.18
16740.000	35.21	PK	H	20.57	55.78	68.20	12.42
16740.000	34.94	PK	V	20.57	55.51	68.20	12.69
High Channel: 5700 MHz							
5725.000	33.88	PK	H	33.03	66.91	68.20	1.29
5725.000	32.85	PK	V	33.03	65.88	68.20	2.32
11400.000	34.62	PK	H	15.89	50.51	74.00	23.49
11400.000	21.52	AV	H	15.89	37.41	54.00	16.59
11400.000	33.67	PK	V	15.89	49.56	74.00	24.44
11400.000	21.42	AV	V	15.89	37.31	54.00	16.69
17100.000	34.63	PK	H	22.49	57.12	68.20	11.08
17100.000	34.21	PK	H	22.49	56.70	68.20	11.50

802.11n ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5510 MHz							
5470.000	34.32	PK	H	32.62	66.94	68.20	1.26
5470.000	33.61	PK	V	32.62	66.23	68.20	1.97
11020.000	34.12	PK	H	15.50	49.62	74.00	24.38
11020.000	21.13	AV	H	15.50	36.63	54.00	17.37
11020.000	33.94	PK	V	15.50	49.44	74.00	24.56
11020.000	21.10	AV	V	15.50	36.60	54.00	17.40
16530.000	34.69	PK	H	20.16	54.85	68.20	13.35
16530.000	34.21	PK	V	20.16	54.37	68.20	13.83
Middle Channel: 5550 MHz							
11100.000	34.08	PK	H	15.45	49.53	74.00	24.47
11100.000	21.19	AV	H	15.45	36.64	54.00	17.36
11100.000	33.93	PK	V	15.45	49.38	74.00	24.62
11100.000	21.06	AV	V	15.45	36.51	54.00	17.49
16650.000	35.12	PK	H	20.65	55.77	68.20	12.43
16650.000	35.20	PK	V	20.65	55.85	68.20	12.35
High Channel: 5670 MHz							
5725.000	29.89	PK	H	33.03	62.92	68.20	5.28
5725.000	29.84	PK	V	33.03	62.87	68.20	5.33
11340.000	34.33	PK	H	15.84	50.17	74.00	23.83
11340.000	21.89	AV	H	15.84	37.73	54.00	16.27
11340.000	33.94	PK	V	15.84	49.78	74.00	24.22
11340.000	21.59	AV	V	15.84	37.43	54.00	16.57
17010.000	34.94	PK	H	22.10	57.04	68.20	11.16
17010.000	34.68	PK	H	22.10	56.78	68.20	11.42

802.11ac vht80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel:				5530	MHz		
5470.000	30.69	PK	H	32.62	63.31	68.20	4.89
5470.000	30.23	PK	V	32.62	62.85	68.20	5.35
11060.000	33.69	PK	H	15.47	49.16	74.00	24.84
11060.000	20.41	AV	H	15.47	35.88	54.00	18.12
11060.000	33.54	PK	V	15.47	49.01	74.00	24.99
11060.000	20.34	AV	V	15.47	35.81	54.00	18.19
16590.000	34.22	PK	H	20.66	54.88	68.20	13.32
16590.000	33.94	PK	V	20.66	54.60	68.20	13.60
High Channel:				5610	MHz		
5725.000	29.64	PK	H	33.03	62.67	68.20	5.53
5725.000	30.11	PK	V	33.03	63.14	68.20	5.06
11220.000	33.64	PK	H	15.41	49.05	74.00	24.95
11220.000	20.43	AV	H	15.41	35.84	54.00	18.16
11220.000	33.62	PK	V	15.41	49.03	74.00	24.97
11220.000	20.39	AV	V	15.41	35.80	54.00	18.20
16830.000	33.89	PK	H	20.92	54.81	68.20	13.39
16830.000	33.67	PK	H	20.92	54.59	68.20	13.61

802.11ax hew20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5500 MHz							
5470.000	31.44	PK	H	32.62	64.06	68.20	4.14
5470.000	30.63	PK	V	32.62	63.25	68.20	4.95
11000.000	35.84	PK	H	15.51	51.35	74.00	22.65
11000.000	22.34	AV	H	15.51	37.85	54.00	16.15
11000.000	34.69	PK	V	15.51	50.20	74.00	23.80
11000.000	21.91	AV	V	15.51	37.42	54.00	16.58
16500.000	35.27	PK	H	19.91	55.18	68.20	13.02
16500.000	34.77	PK	V	19.91	54.68	68.20	13.52
Middle Channel: 5580 MHz							
11160.000	35.13	PK	H	15.36	50.49	74.00	23.51
11160.000	22.46	AV	H	15.36	37.82	54.00	16.18
11160.000	35.33	PK	V	15.36	50.69	74.00	23.31
11160.000	22.08	AV	V	15.36	37.44	54.00	16.56
16740.000	34.36	PK	H	20.57	54.93	68.20	13.27
16740.000	35.10	PK	V	20.57	55.67	68.20	12.53
High Channel: 5700 MHz							
5725.000	33.24	PK	H	33.03	66.27	68.20	1.93
5725.000	33.69	PK	V	33.03	66.72	68.20	1.48
11400.000	35.10	PK	H	15.89	50.99	74.00	23.01
11400.000	22.88	AV	H	15.89	38.77	54.00	15.23
11400.000	34.13	PK	V	15.89	50.02	74.00	23.98
11400.000	21.47	AV	V	15.89	37.36	54.00	16.64
17100.000	33.66	PK	H	22.49	56.15	68.20	12.05
17100.000	34.91	PK	H	22.49	57.40	68.20	10.80

802.11ax hew40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5510 MHz							
5470.000	32.41	PK	H	32.62	65.03	68.20	3.17
5470.000	31.63	PK	V	32.62	64.25	68.20	3.95
11020.000	35.22	PK	H	15.50	50.72	74.00	23.28
11020.000	22.31	AV	H	15.50	37.81	54.00	16.19
11020.000	34.77	PK	V	15.50	50.27	74.00	23.73
11020.000	21.29	AV	V	15.50	36.79	54.00	17.21
16530.000	34.11	PK	H	20.16	54.27	68.20	13.93
16530.000	35.06	PK	V	20.16	55.22	68.20	12.98
Middle Channel: 5550 MHz							
11100.000	35.10	PK	H	15.45	50.55	74.00	23.45
11100.000	22.33	AV	H	15.45	37.78	54.00	16.22
11100.000	34.34	PK	V	15.45	49.79	74.00	24.21
11100.000	21.51	AV	V	15.45	36.96	54.00	17.04
16650.000	34.89	PK	H	20.65	55.54	68.20	12.66
16650.000	35.30	PK	V	20.65	55.95	68.20	12.25
High Channel: 5670 MHz							
5725.000	30.11	PK	H	33.03	63.14	68.20	5.06
5725.000	30.46	PK	V	33.03	63.49	68.20	4.71
11340.000	35.28	PK	H	15.84	51.12	74.00	22.88
11340.000	22.64	AV	H	15.84	38.48	54.00	15.52
11340.000	34.30	PK	V	15.84	50.14	74.00	23.86
11340.000	21.44	AV	V	15.84	37.28	54.00	16.72
17010.000	35.39	PK	H	22.10	57.49	68.20	10.71
17010.000	34.79	PK	H	22.10	56.89	68.20	11.31

802.11ax hew80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel:				5530	MHz		
5470.000	31.01	PK	H	32.62	63.63	68.20	4.57
5470.000	30.77	PK	V	32.62	63.39	68.20	4.81
11060.000	34.11	PK	H	15.47	49.58	74.00	24.42
11060.000	21.39	AV	H	15.47	36.86	54.00	17.14
11060.000	34.84	PK	V	15.47	50.31	74.00	23.69
11060.000	21.07	AV	V	15.47	36.54	54.00	17.46
16590.000	33.55	PK	H	20.66	54.21	68.20	13.99
16590.000	34.01	PK	V	20.66	54.67	68.20	13.53
High Channel:				5610	MHz		
5725.000	30.13	PK	H	33.03	63.16	68.20	5.04
5725.000	29.48	PK	V	33.03	62.51	68.20	5.69
11220.000	34.11	PK	H	15.41	49.52	74.00	24.48
11220.000	21.79	AV	H	15.41	37.20	54.00	16.80
11220.000	34.85	PK	V	15.41	50.26	74.00	23.74
11220.000	21.26	AV	V	15.41	36.67	54.00	17.33
16830.000	34.33	PK	H	20.92	55.25	68.20	12.95
16830.000	33.88	PK	H	20.92	54.80	68.20	13.40

5725-5850MHz**802.11a Mode Chain 0:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel:				5745	MHz		
11490.000	33.29	PK	H	15.47	48.76	74.00	25.24
11490.000	20.18	AV	H	15.47	35.65	54.00	18.35
11490.000	32.94	PK	V	15.47	48.41	74.00	25.59
11490.000	20.16	AV	V	15.47	35.63	54.00	18.37
17235.000	33.76	PK	H	22.69	56.45	68.20	11.75
17235.000	20.41	PK	V	22.69	43.10	68.20	25.10
Middle Channel:				5785	MHz		
11570.000	33.20	PK	H	15.69	48.89	74.00	25.11
11570.000	20.52	AV	H	15.69	36.21	54.00	17.79
11570.000	33.08	PK	V	15.69	48.77	74.00	25.23
11570.000	20.39	AV	V	15.69	36.08	54.00	17.92
17355.000	33.61	PK	H	23.33	56.94	68.20	11.26
17355.000	32.98	PK	V	23.33	56.31	68.20	11.89
High Channel:				5825	MHz		
11650.000	33.98	PK	H	16.02	50.00	74.00	24.00
11650.000	21.09	AV	H	16.02	37.11	54.00	16.89
11650.000	33.69	PK	V	16.02	49.71	74.00	24.29
11650.000	20.44	AV	V	16.02	36.46	54.00	17.54
17475.000	33.55	PK	H	23.87	57.42	68.20	10.78
17475.000	33.49	PK	V	23.87	57.36	68.20	10.84

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5745 MHz							
11490.000	33.03	PK	H	15.47	48.50	74.00	25.50
11490.000	20.66	AV	H	15.47	36.13	54.00	17.87
11490.000	32.86	PK	V	15.47	48.33	74.00	25.67
11490.000	20.12	AV	V	15.47	35.59	54.00	18.41
17235.000	33.11	PK	H	22.69	55.80	68.20	12.40
17235.000	33.05	PK	V	22.69	55.74	68.20	12.46
Middle Channel: 5785 MHz							
11570.000	34.12	PK	H	15.69	49.81	74.00	24.19
11570.000	20.89	AV	H	15.69	36.58	54.00	17.42
11570.000	33.86	PK	V	15.69	49.55	74.00	24.45
11570.000	20.41	AV	V	15.69	36.10	54.00	17.90
17355.000	33.69	PK	H	23.33	57.02	68.20	11.18
17355.000	33.50	PK	V	23.33	56.83	68.20	11.37
High Channel: 5825 MHz							
11650.000	33.78	PK	H	16.02	49.80	74.00	24.20
11650.000	20.19	AV	H	16.02	36.21	54.00	17.79
11650.000	33.49	PK	V	16.02	49.51	74.00	24.49
11650.000	20.37	AV	V	16.02	36.39	54.00	17.61
17475.000	34.13	PK	H	23.87	58.00	68.20	10.20
17475.000	33.62	PK	V	23.87	57.49	68.20	10.71

802.11n ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5745 MHz							
11490.000	33.65	PK	H	15.47	49.12	74.00	24.88
11490.000	20.55	AV	H	15.47	36.02	54.00	17.98
11490.000	32.79	PK	V	15.47	48.26	74.00	25.74
11490.000	20.12	AV	V	15.47	35.59	54.00	18.41
17235.000	33.36	PK	H	22.69	56.05	68.20	12.15
17235.000	33.29	PK	V	22.69	55.98	68.20	12.22
Middle Channel: 5785 MHz							
11570.000	33.84	PK	H	15.69	49.53	74.00	24.47
11570.000	21.41	AV	H	15.69	37.10	54.00	16.90
11570.000	33.65	PK	V	15.69	49.34	74.00	24.66
11570.000	20.88	AV	V	15.69	36.57	54.00	17.43
17355.000	33.55	PK	H	23.33	56.88	68.20	11.32
17355.000	33.31	PK	V	23.33	56.64	68.20	11.56
High Channel: 5825 MHz							
11650.000	34.75	PK	H	16.02	50.77	74.00	23.23
11650.000	21.39	AV	H	16.02	37.41	54.00	16.59
11650.000	34.26	PK	V	16.02	50.28	74.00	23.72
11650.000	21.24	AV	V	16.02	37.26	54.00	16.74
17475.000	33.60	PK	H	23.87	57.47	68.20	10.73
17475.000	33.37	PK	V	23.87	57.24	68.20	10.96

802.11n ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5755 MHz							
11510.000	33.32	PK	H	15.46	48.78	74.00	25.22
11510.000	21.39	AV	H	15.46	36.85	54.00	17.15
11510.000	33.27	PK	V	15.46	48.73	74.00	25.27
11510.000	20.49	AV	V	15.46	35.95	54.00	18.05
17265.000	33.88	PK	H	22.77	56.65	68.20	11.55
17265.000	33.64	PK	V	22.77	56.41	68.20	11.79
High Channel: 5795 MHz							
11590.000	33.62	PK	H	15.76	49.38	74.00	24.62
11590.000	21.53	AV	H	15.76	37.29	54.00	16.71
11590.000	33.51	PK	V	15.76	49.27	74.00	24.73
11590.000	21.40	AV	V	15.76	37.16	54.00	16.84
17385.000	33.49	PK	H	23.57	57.06	68.20	11.14
17385.000	33.52	PK	V	23.57	57.09	68.20	11.11

802.11ac vht80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Middle Channel: 5775 MHz							
11550.000	33.44	PK	H	15.61	49.05	74.00	24.95
11550.000	20.23	AV	H	15.61	35.84	54.00	18.16
11550.000	33.21	PK	V	15.61	48.82	74.00	25.18
11550.000	20.41	AV	V	15.61	36.02	54.00	17.98
17325.000	33.65	PK	H	23.09	56.74	68.20	11.46
17325.000	33.45	PK	H	23.09	56.54	68.20	11.66

802.11ax hew20 Mode:

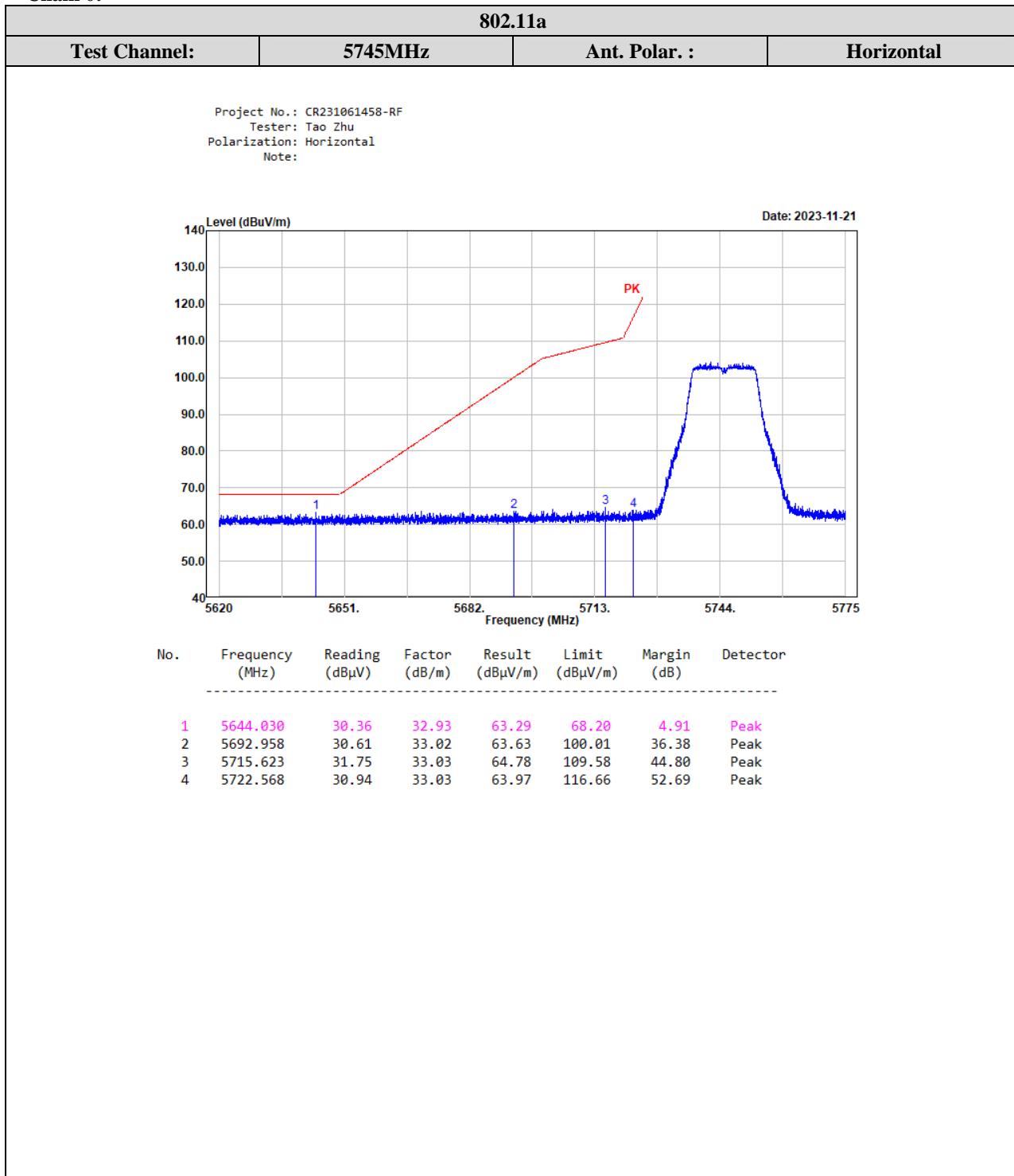
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5745 MHz							
11490.000	34.12	PK	H	15.47	49.59	74.00	24.41
11490.000	21.06	AV	H	15.47	36.53	54.00	17.47
11490.000	33.78	PK	V	15.47	49.25	74.00	24.75
11490.000	20.31	AV	V	15.47	35.78	54.00	18.22
17235.000	34.10	PK	H	22.69	56.79	68.20	11.41
17235.000	34.69	PK	V	22.69	57.38	68.20	10.82
Middle Channel: 5785 MHz							
11570.000	33.13	PK	H	15.69	48.82	74.00	25.18
11570.000	20.67	AV	H	15.69	36.36	54.00	17.64
11570.000	34.19	PK	V	15.69	49.88	74.00	24.12
11570.000	21.66	AV	V	15.69	37.35	54.00	16.65
17355.000	34.16	PK	H	23.33	57.49	68.20	10.71
17355.000	34.55	PK	V	23.33	57.88	68.20	10.32
High Channel: 5825 MHz							
11650.000	33.56	PK	H	16.02	49.58	74.00	24.42
11650.000	20.33	AV	H	16.02	36.35	54.00	17.65
11650.000	34.73	PK	V	16.02	50.75	74.00	23.25
11650.000	21.04	AV	V	16.02	37.06	54.00	16.94
17475.000	33.37	PK	H	23.87	57.24	68.20	10.96
17475.000	34.29	PK	V	23.87	58.16	68.20	10.04

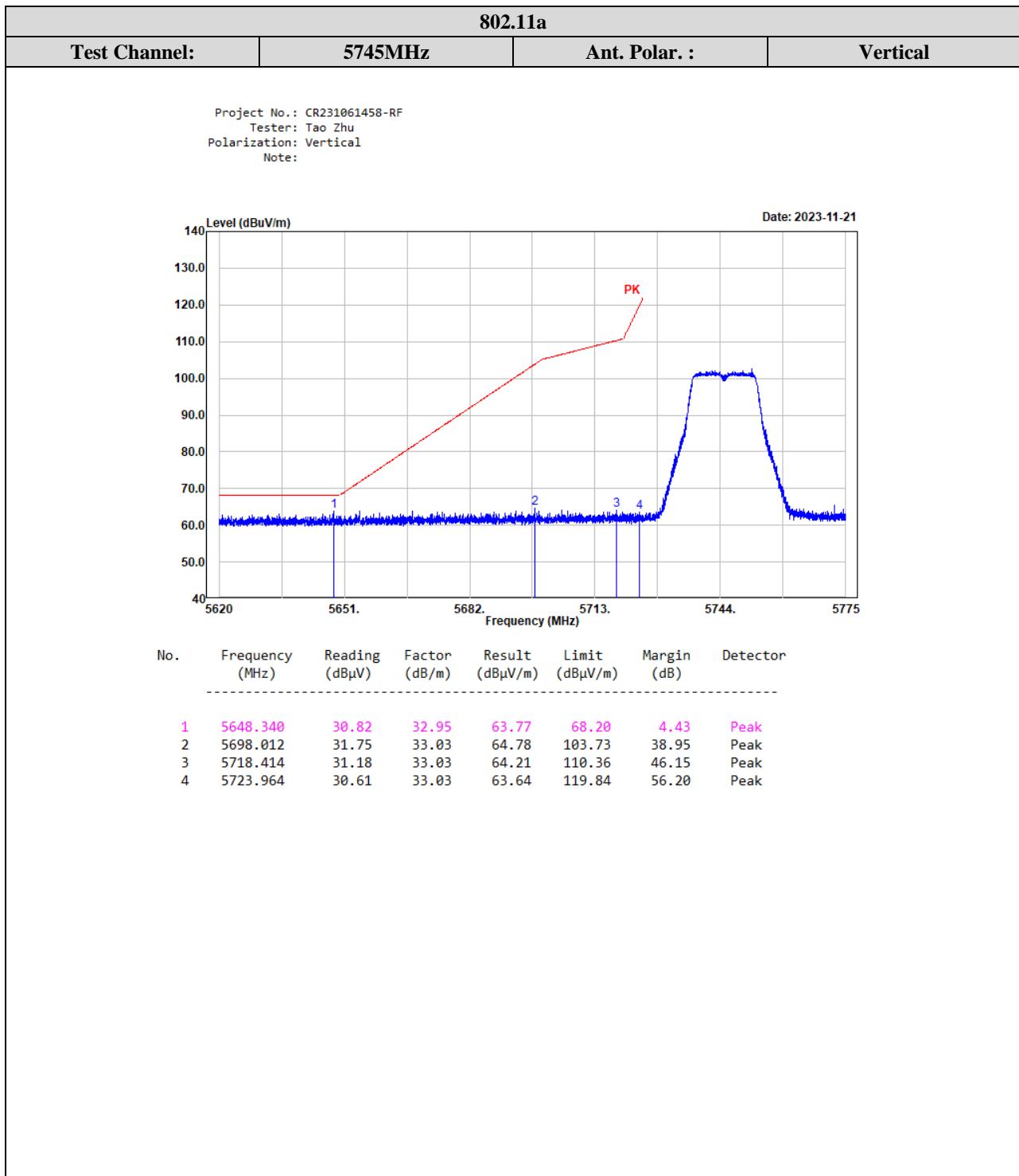
802.11ax hew40 Mode:

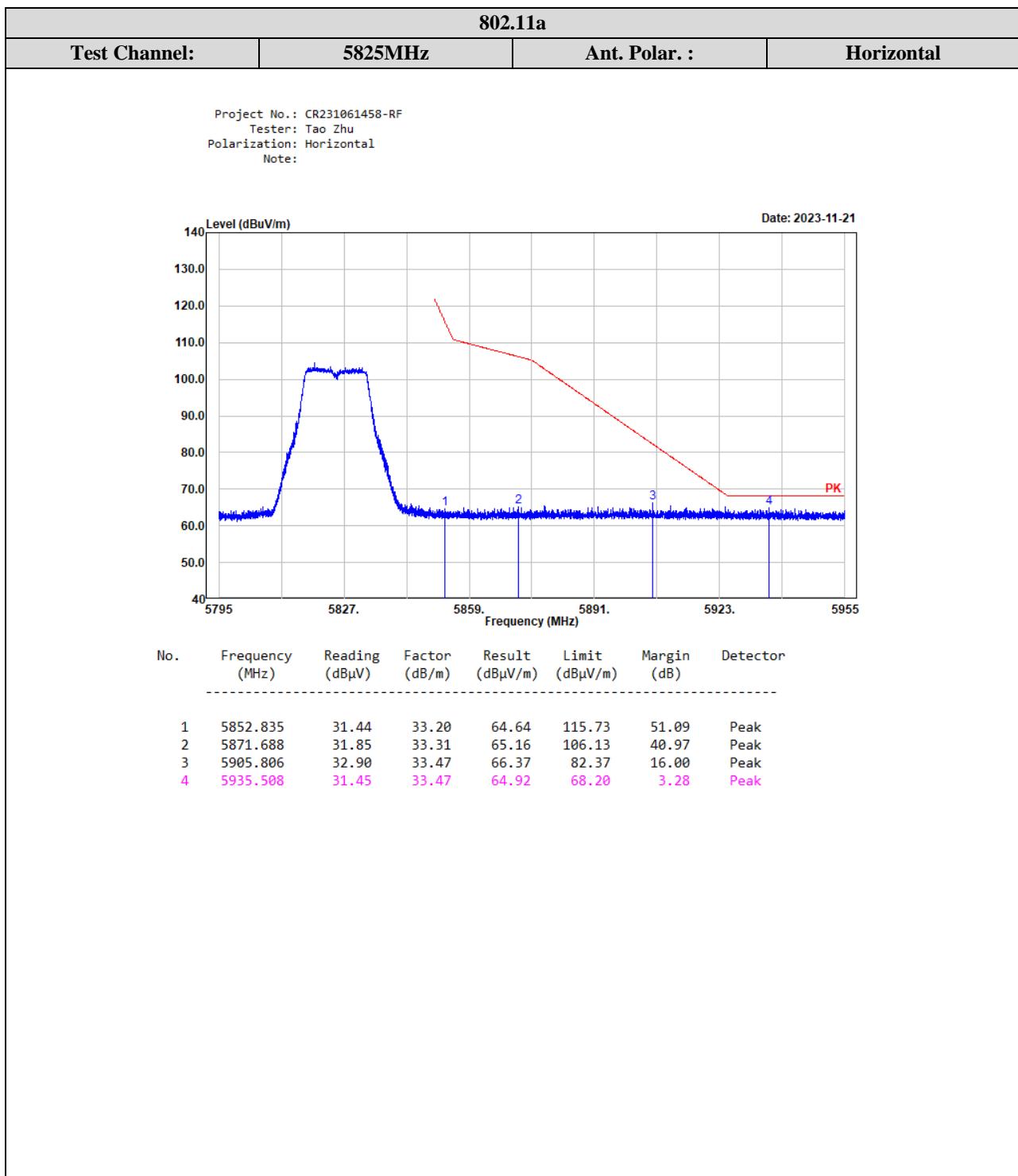
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Low Channel: 5755 MHz							
11510.000	34.05	PK	H	15.46	49.51	74.00	24.49
11510.000	21.66	AV	H	15.46	37.12	54.00	16.88
11510.000	33.78	PK	V	15.46	49.24	74.00	24.76
11510.000	20.44	AV	V	15.46	35.90	54.00	18.10
17265.000	33.11	PK	H	22.77	55.88	68.20	12.32
17265.000	34.06	PK	V	22.77	56.83	68.20	11.37
High Channel: 5795 MHz							
11590.000	34.11	PK	H	15.76	49.87	74.00	24.13
11590.000	21.74	AV	H	15.76	37.50	54.00	16.50
11590.000	34.63	PK	V	15.76	50.39	74.00	23.61
11590.000	21.08	AV	V	15.76	36.84	54.00	17.16
17385.000	34.10	PK	H	23.57	57.67	68.20	10.53
17385.000	33.98	PK	V	23.57	57.55	68.20	10.65

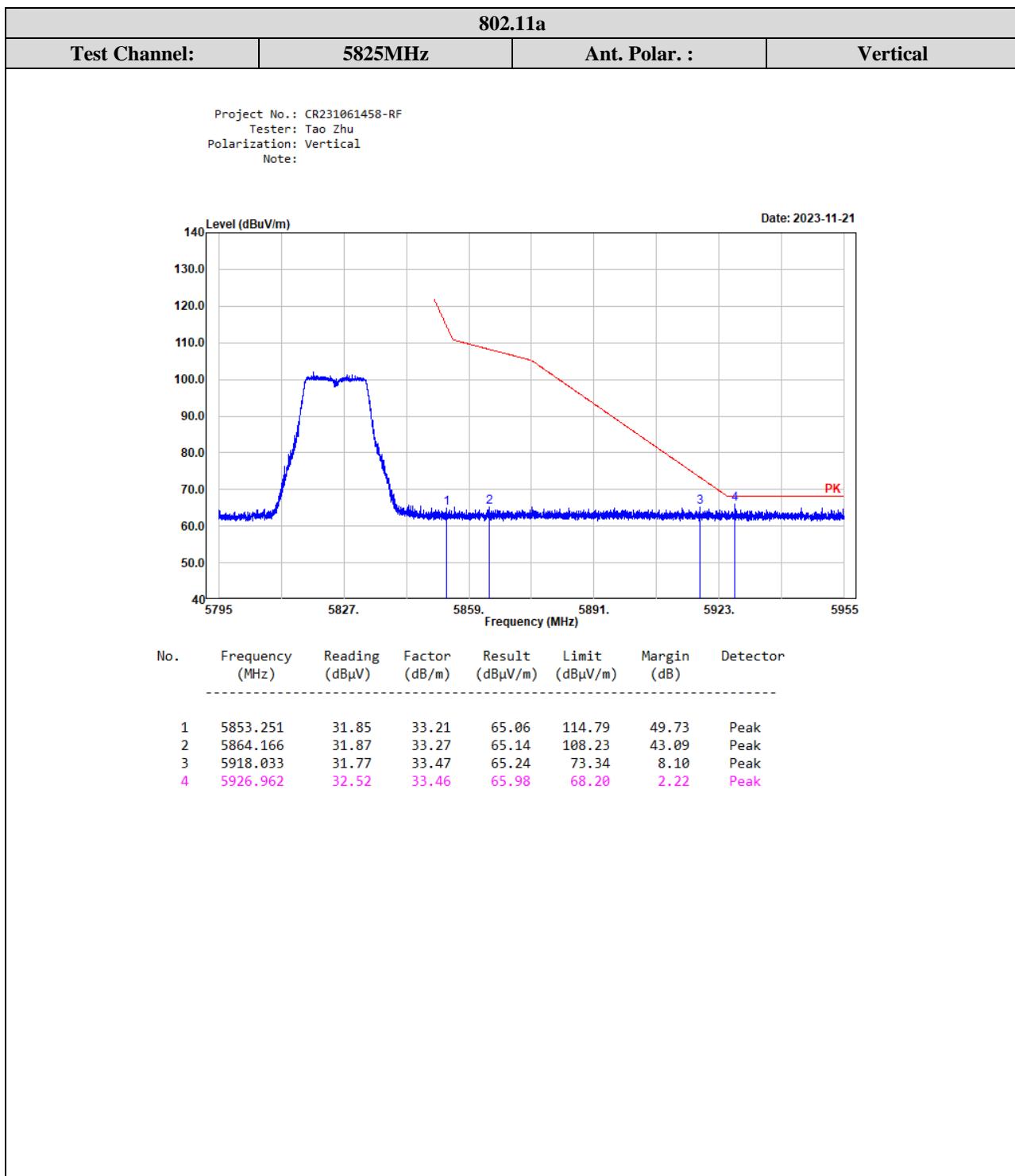
802.11ax hew80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
	Reading (dB μ V)	Detector					
Middle Channel: 5775 MHz							
11550.000	34.11	PK	H	15.61	49.72	74.00	24.28
11550.000	21.63	AV	H	15.61	37.24	54.00	16.76
11550.000	34.65	PK	V	15.61	50.26	74.00	23.74
11550.000	21.78	AV	V	15.61	37.39	54.00	16.61
17325.000	33.63	PK	H	23.09	56.72	68.20	11.48
17325.000	34.01	PK	H	23.09	57.10	68.20	11.10

**4) Test plots for Band Edge Measurements in 5745-5825 MHz Band (Radiated)
Chain 0:**



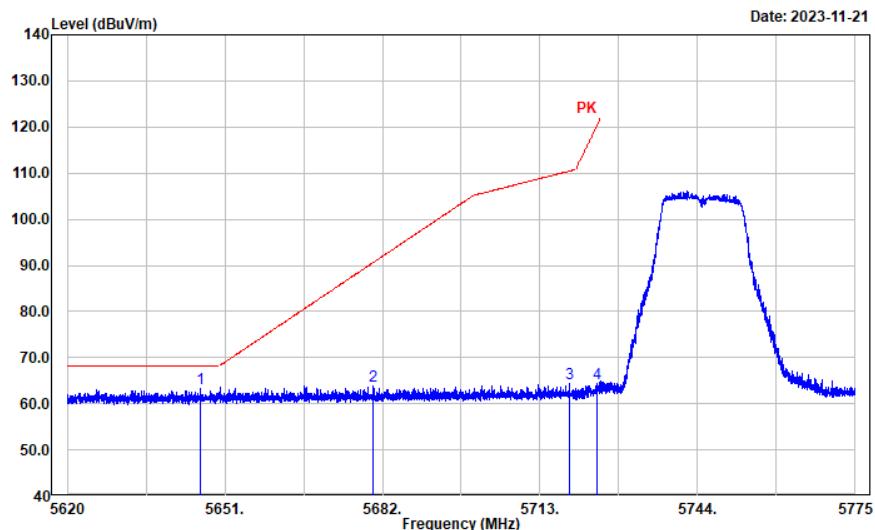




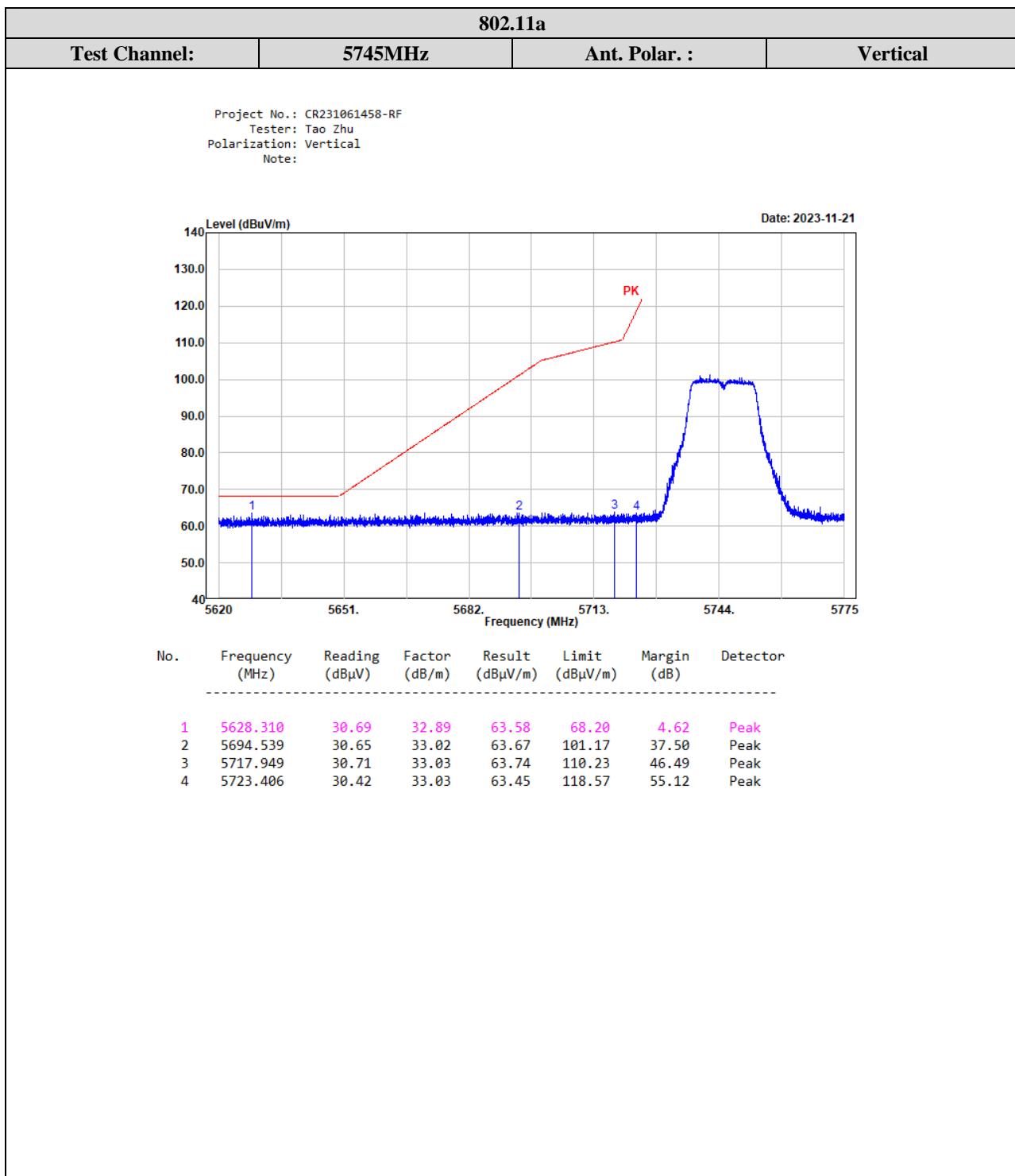
Chain 1:**802.11a**

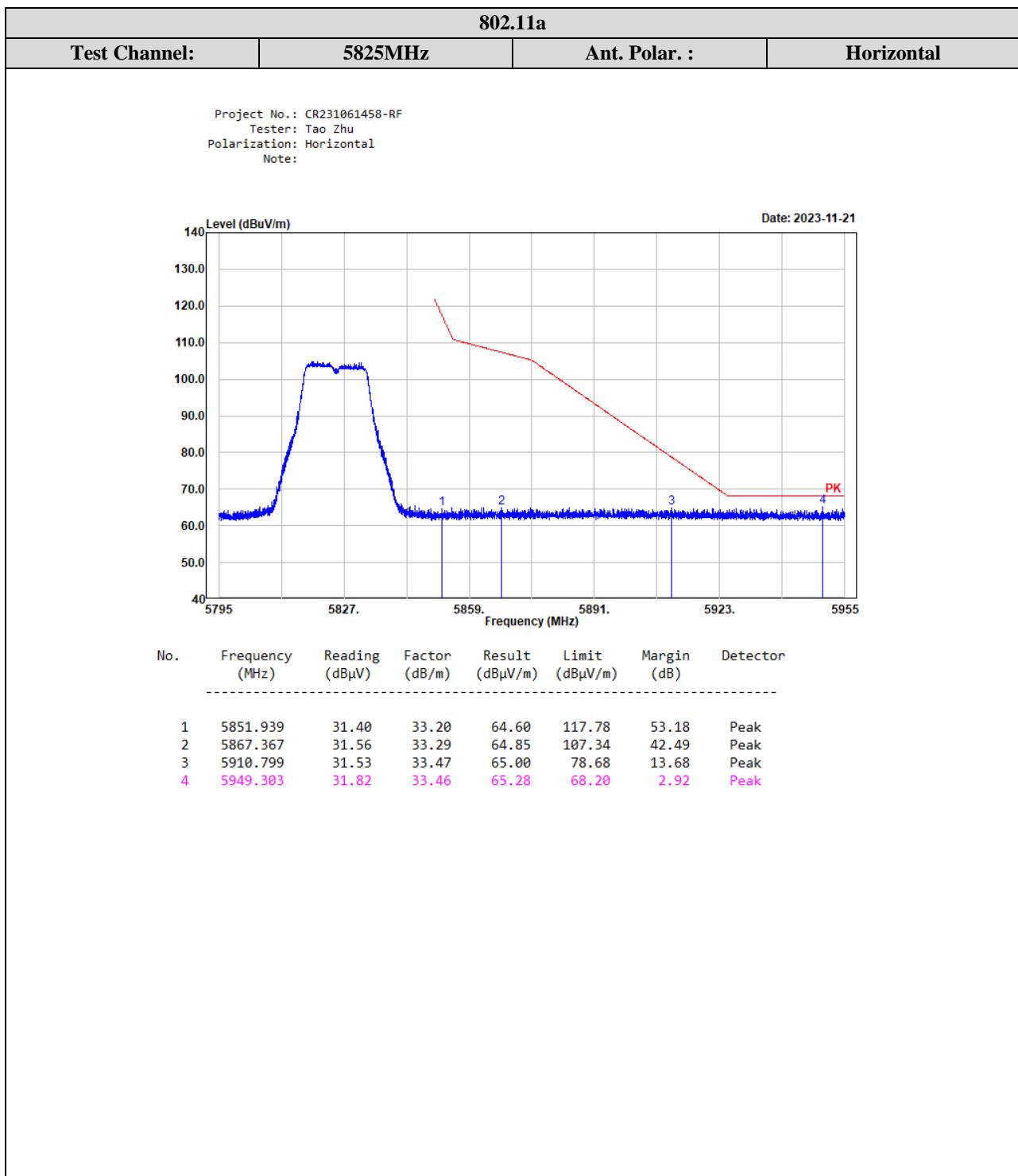
Test Channel:	5745MHz	Ant. Polar. :	Horizontal
----------------------	----------------	----------------------	-------------------

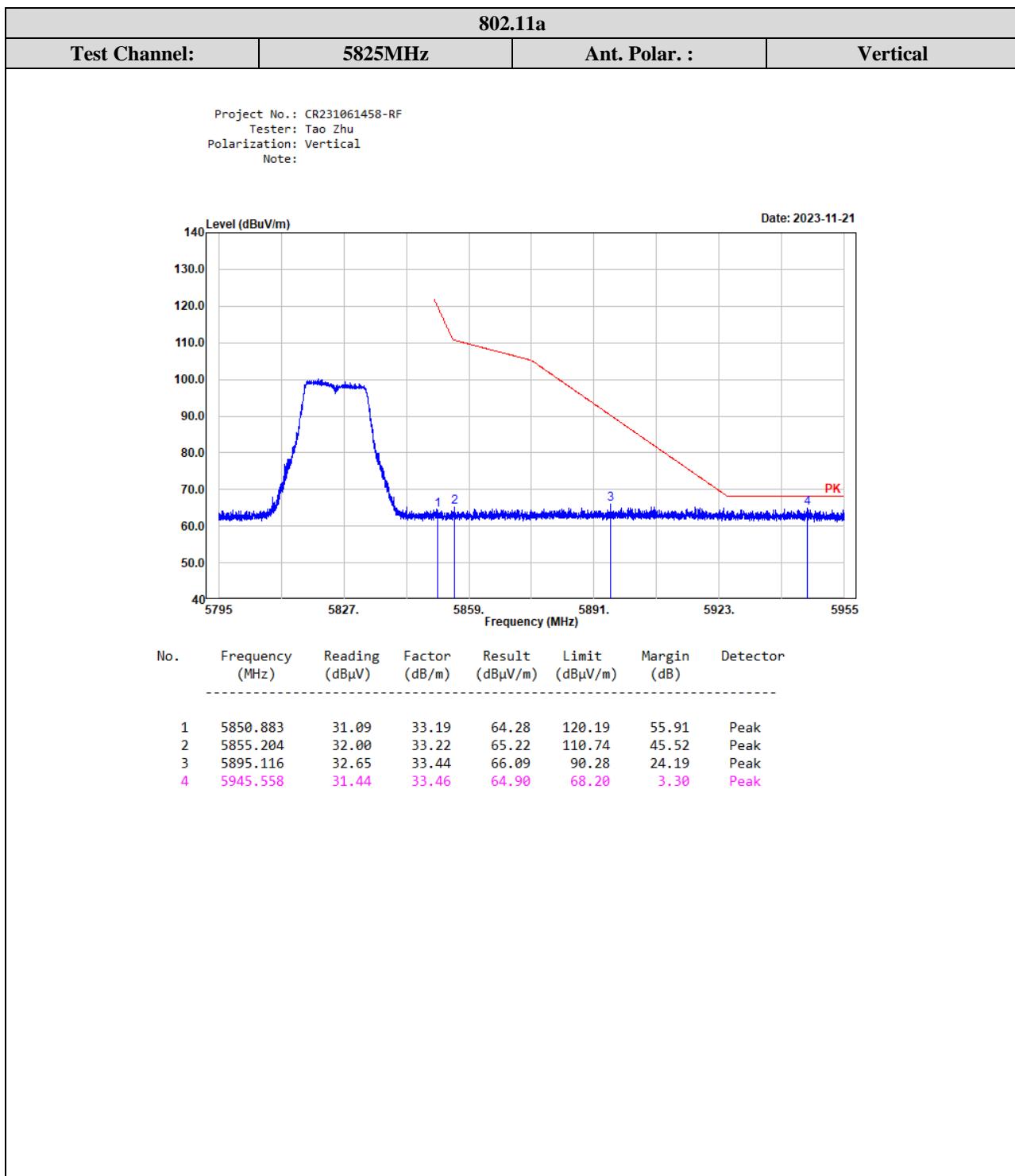
Project No.: CR231061458-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:

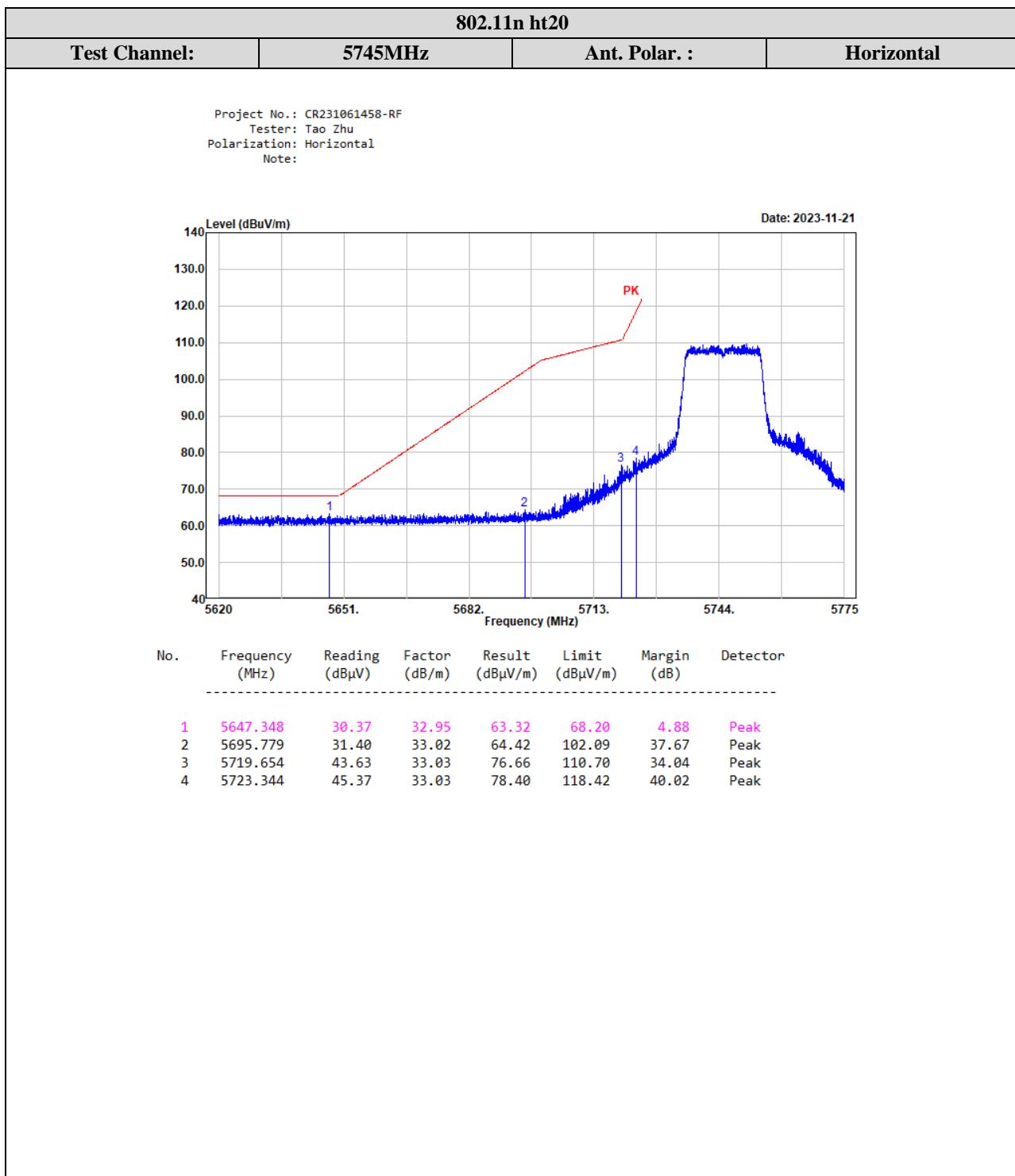


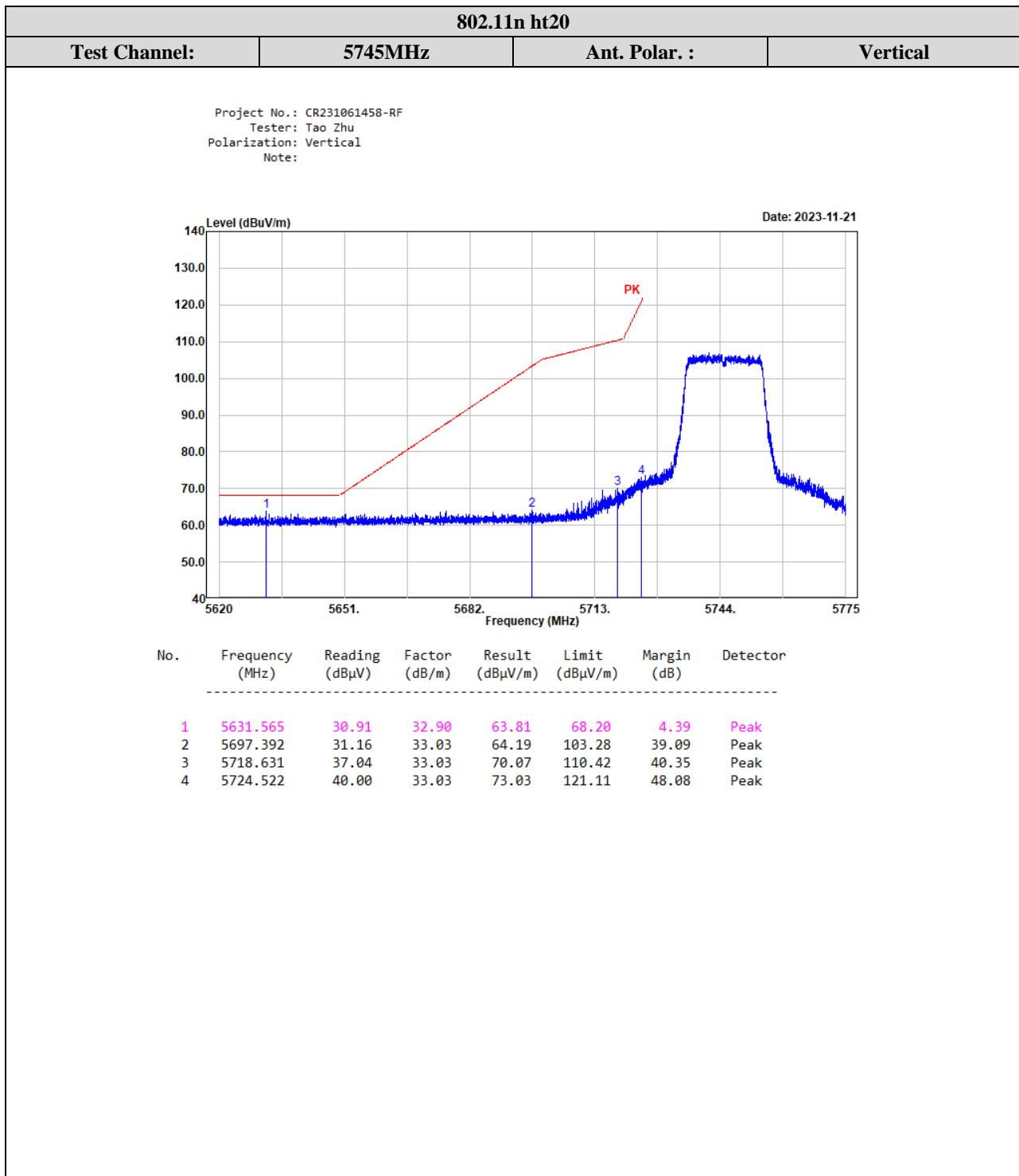
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	5646.262	30.29	32.94	63.23	68.20	4.97	Peak
2	5680.245	30.85	33.00	63.85	90.62	26.77	Peak
3	5718.724	31.45	33.03	64.48	110.44	45.96	Peak
4	5724.150	31.28	33.03	64.31	120.26	55.95	Peak

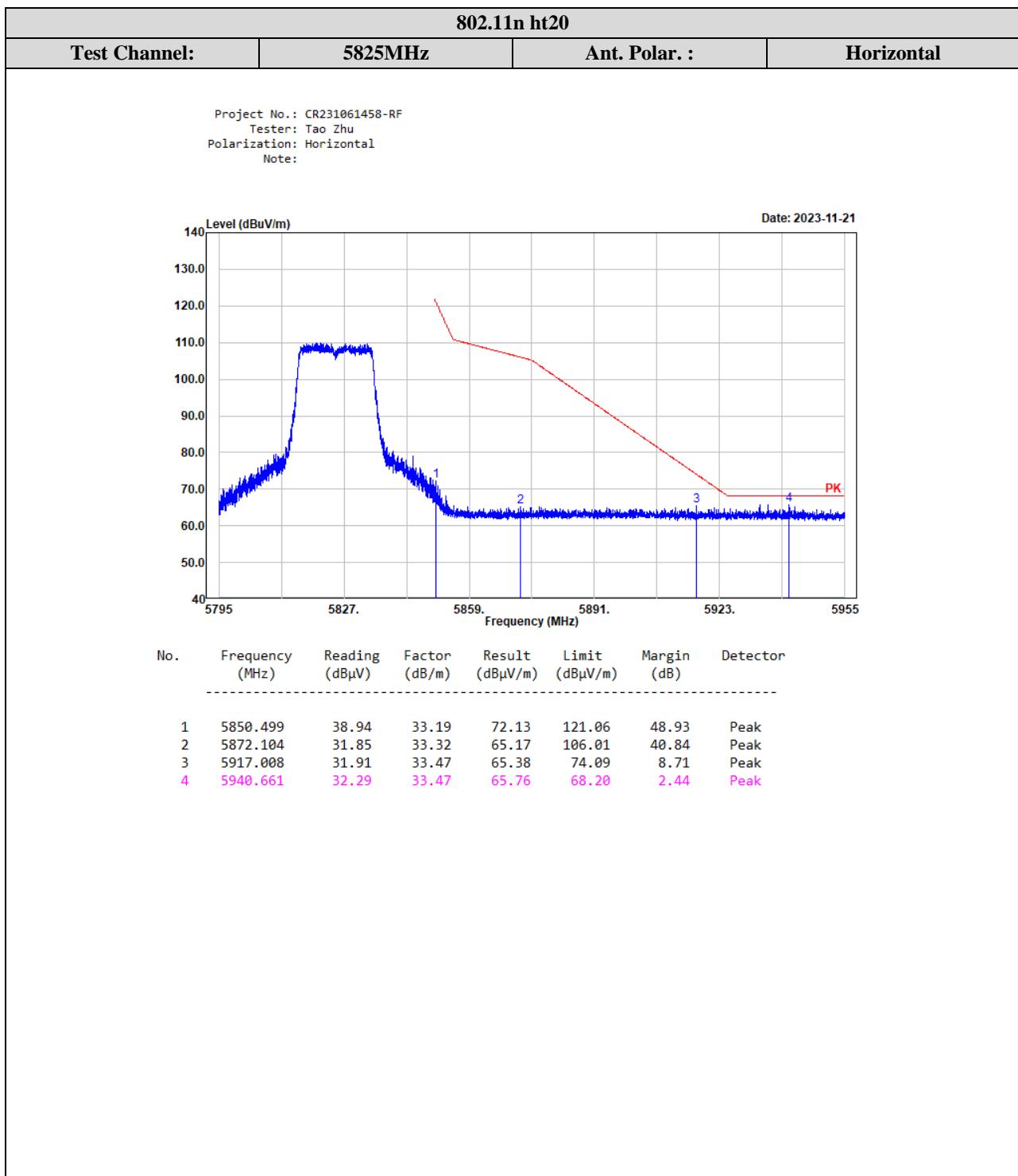


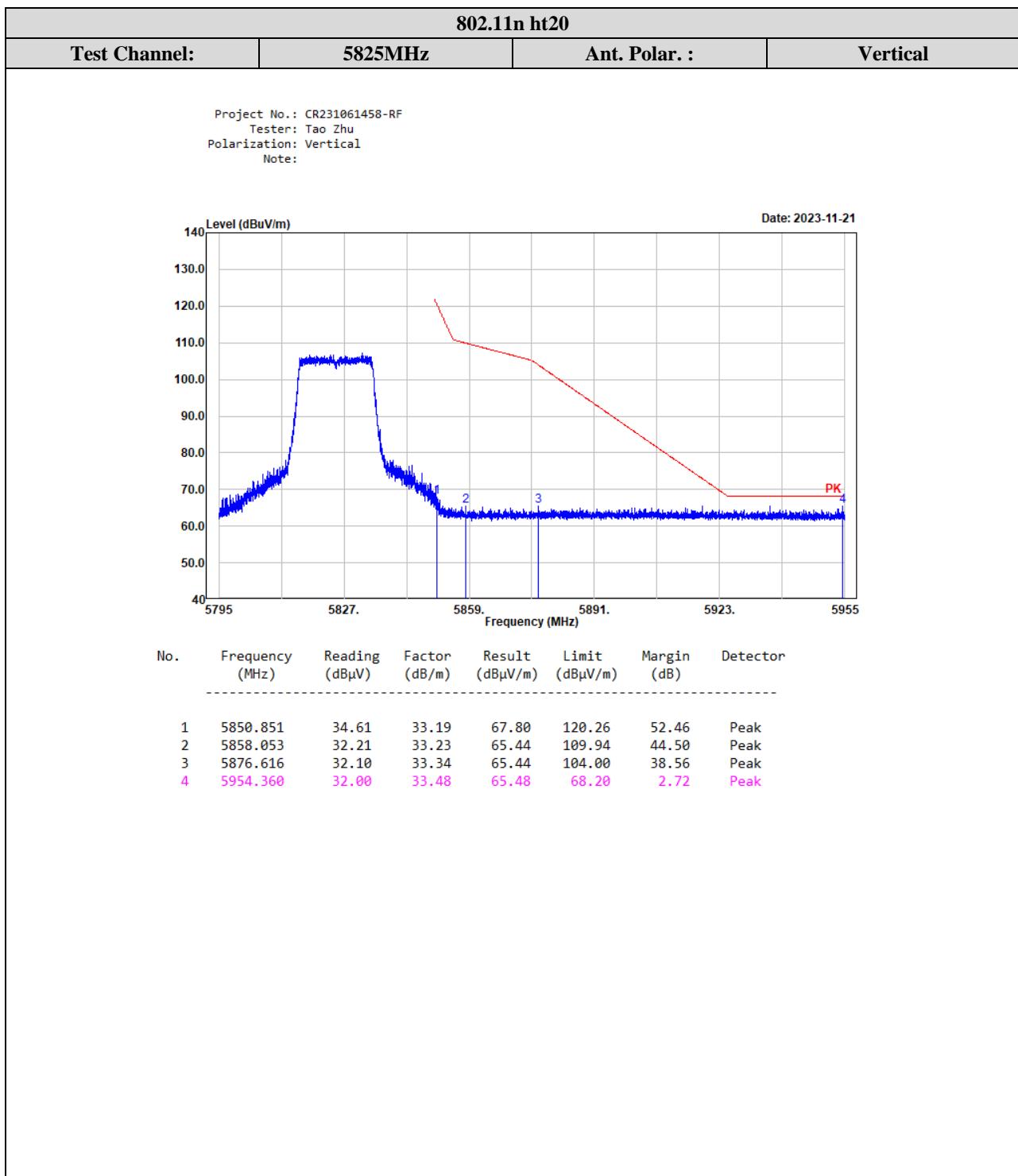


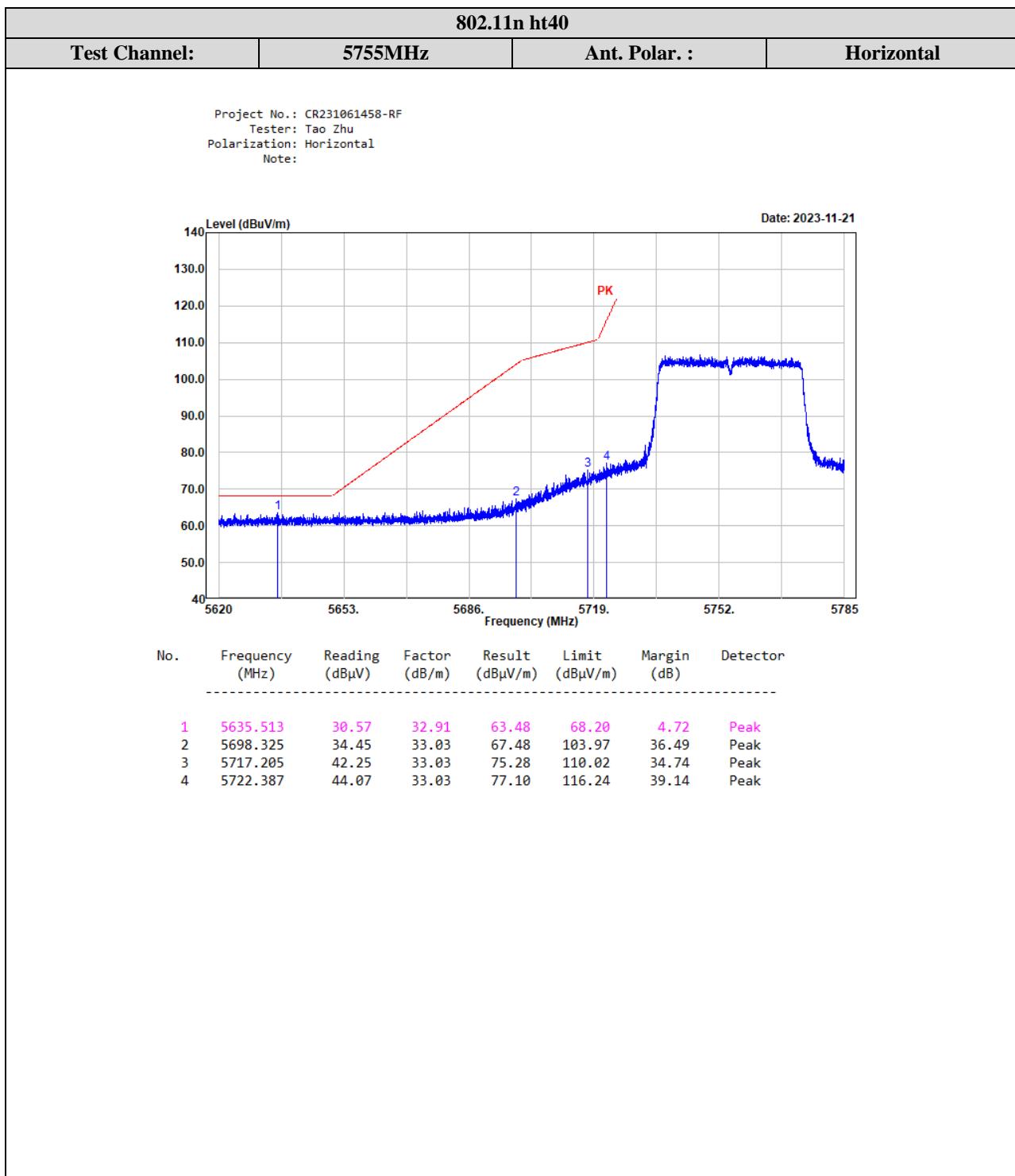


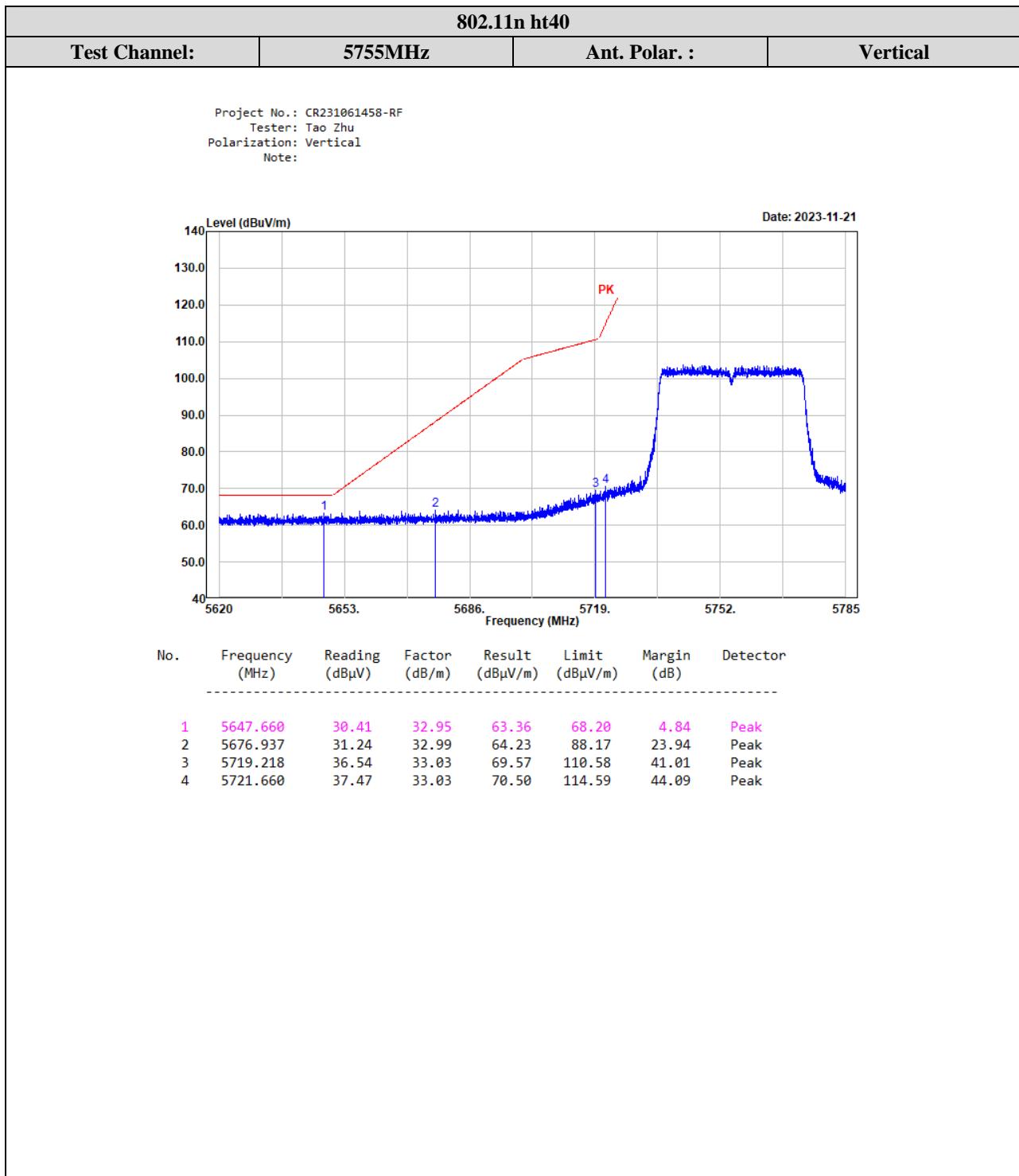


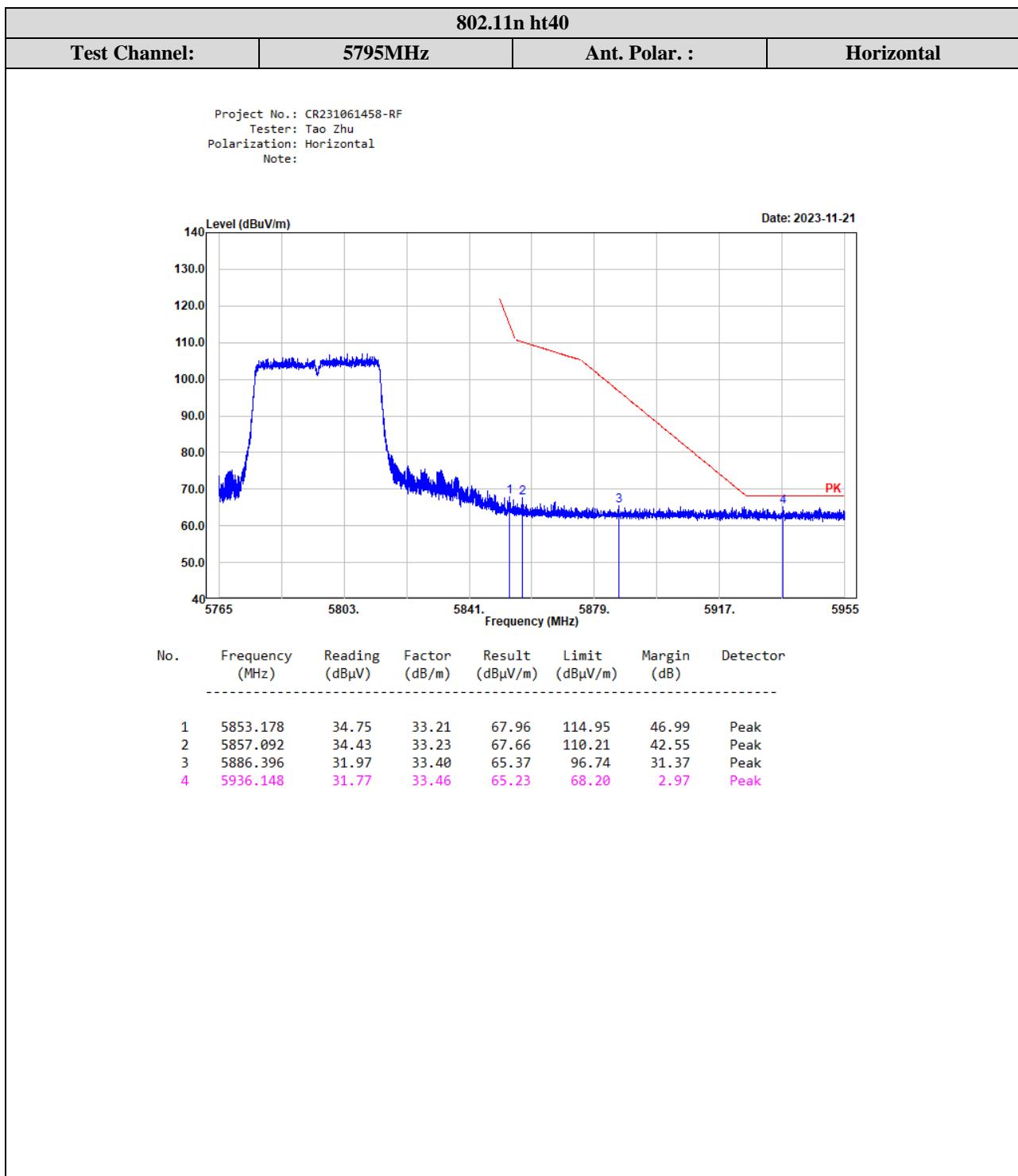


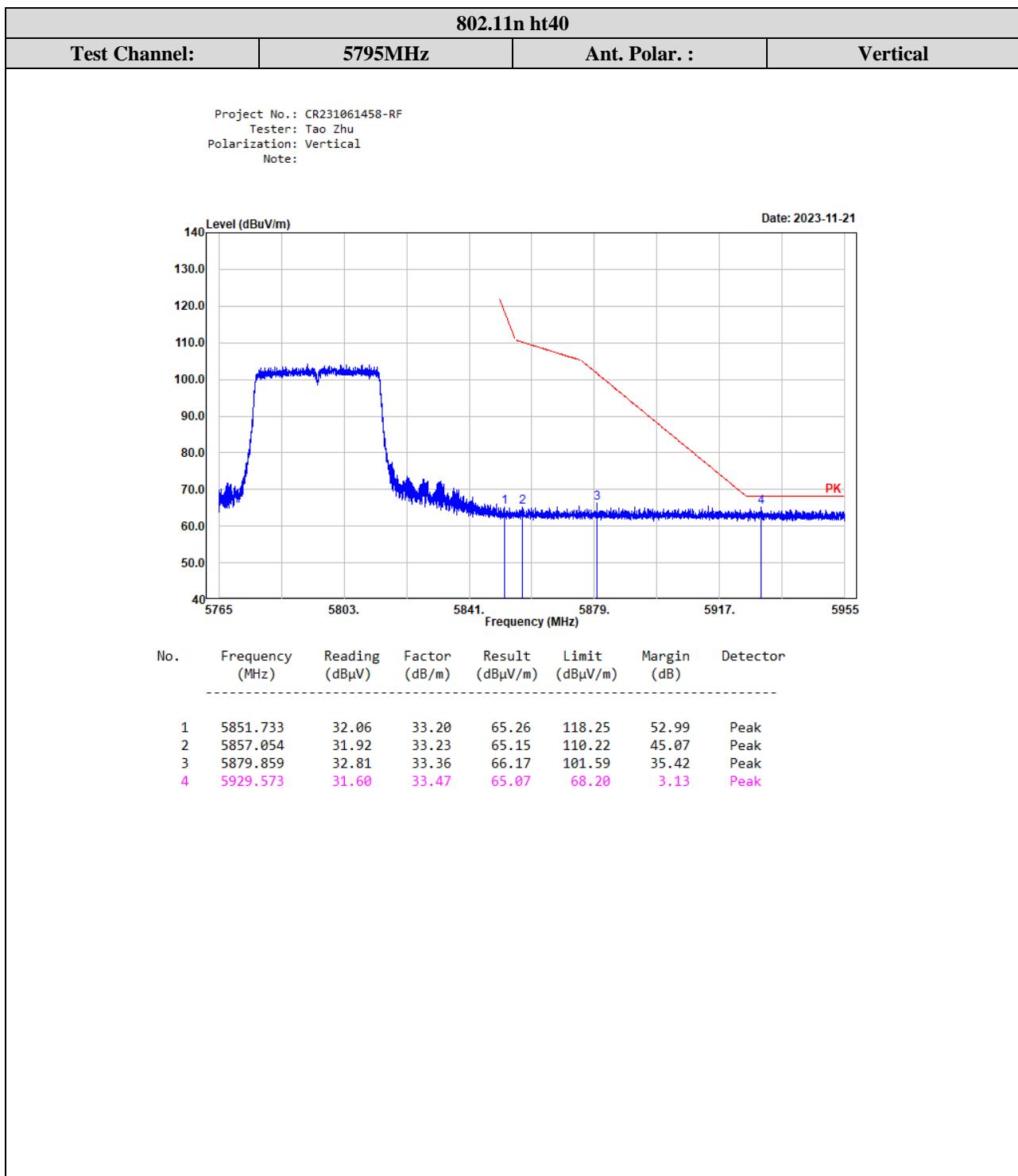








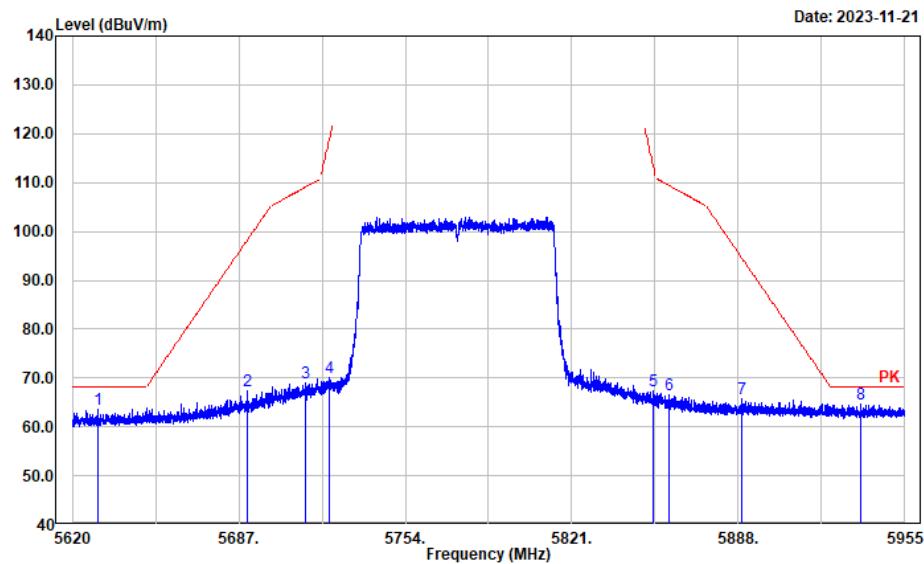




802.11ac vht80

Test Channel:	5775MHz	Ant. Polar. :	Horizontal
----------------------	----------------	----------------------	-------------------

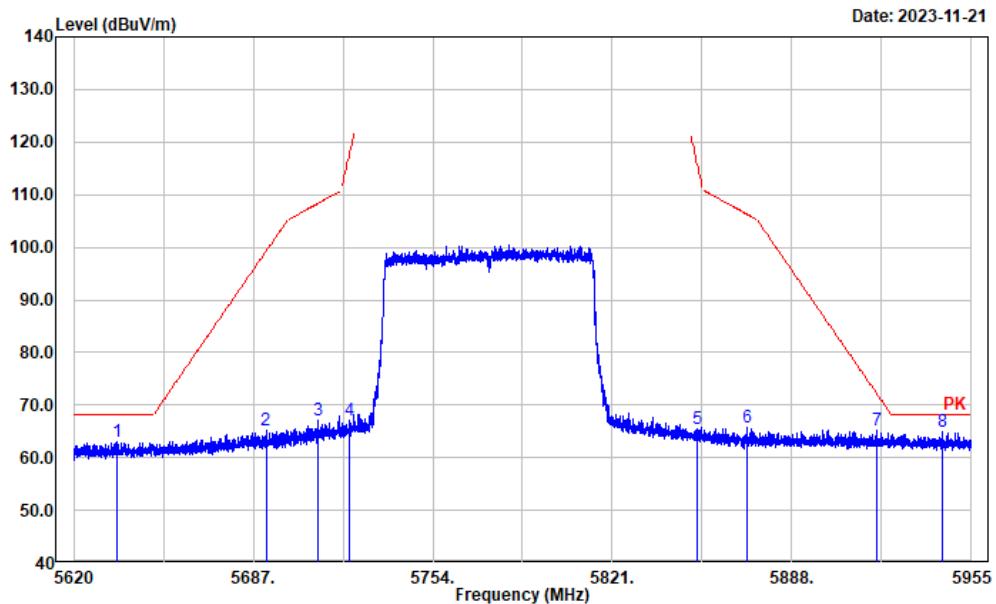
Project No.: CR231061458-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



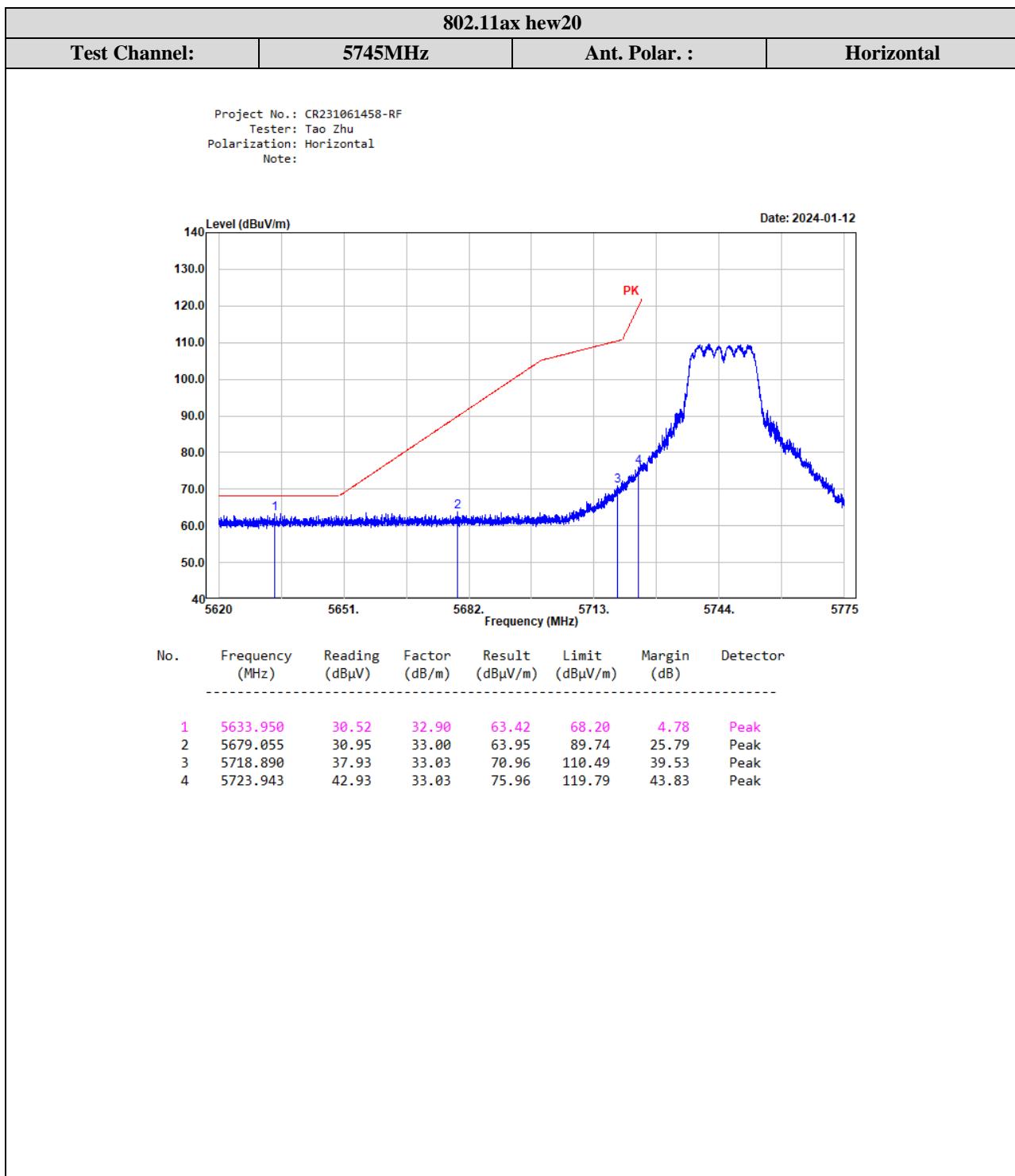
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	5630.253	30.76	32.90	63.66	68.20	4.54	Peak
2	5690.297	34.29	33.01	67.30	98.05	30.75	Peak
3	5713.752	35.99	33.03	69.02	109.05	40.03	Peak
4	5723.536	37.09	33.03	70.12	118.86	48.74	Peak
5	5853.676	34.05	33.21	67.26	113.82	46.56	Peak
6	5859.975	33.33	33.25	66.58	109.41	42.83	Peak
7	5889.394	32.26	33.41	65.67	94.52	28.85	Peak
8	5937.174	31.10	33.46	64.56	68.20	3.64	Peak

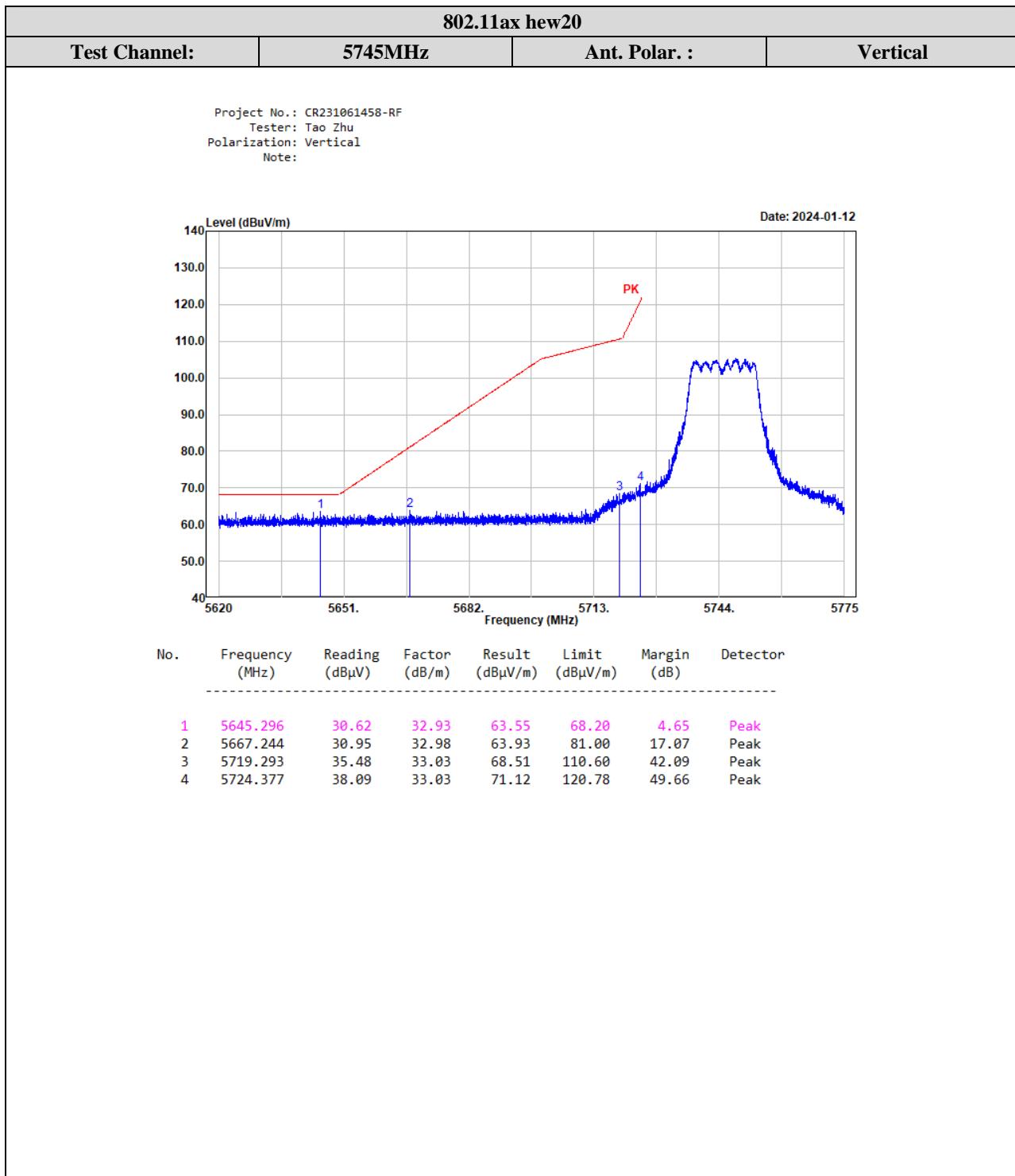
802.11ac vht80**Test Channel: 5775MHz Ant. Polar. : Vertical**

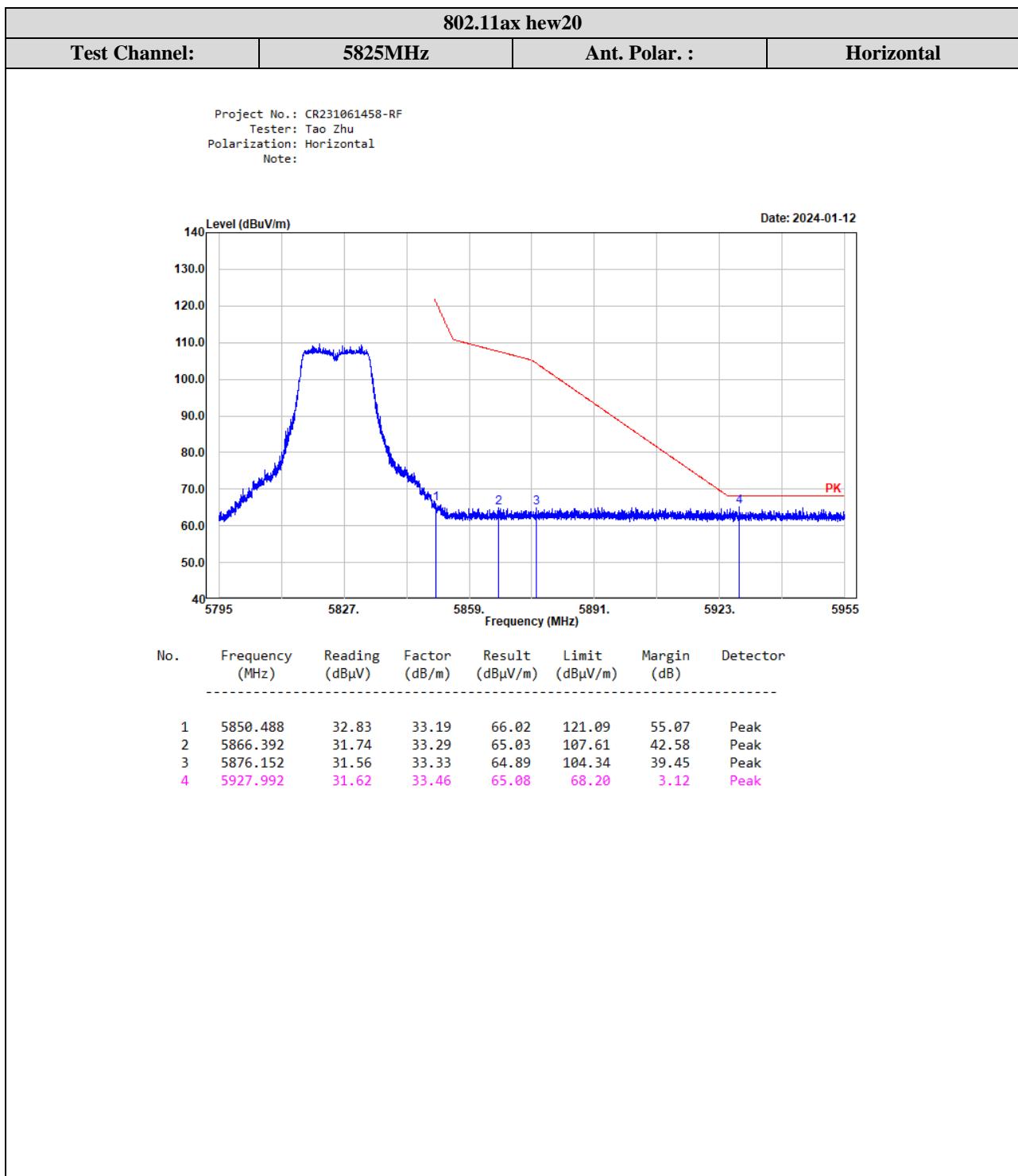
Project No.: CR231061458-RF
Tester: Tao Zhu
Polarization: Vertical
Note:

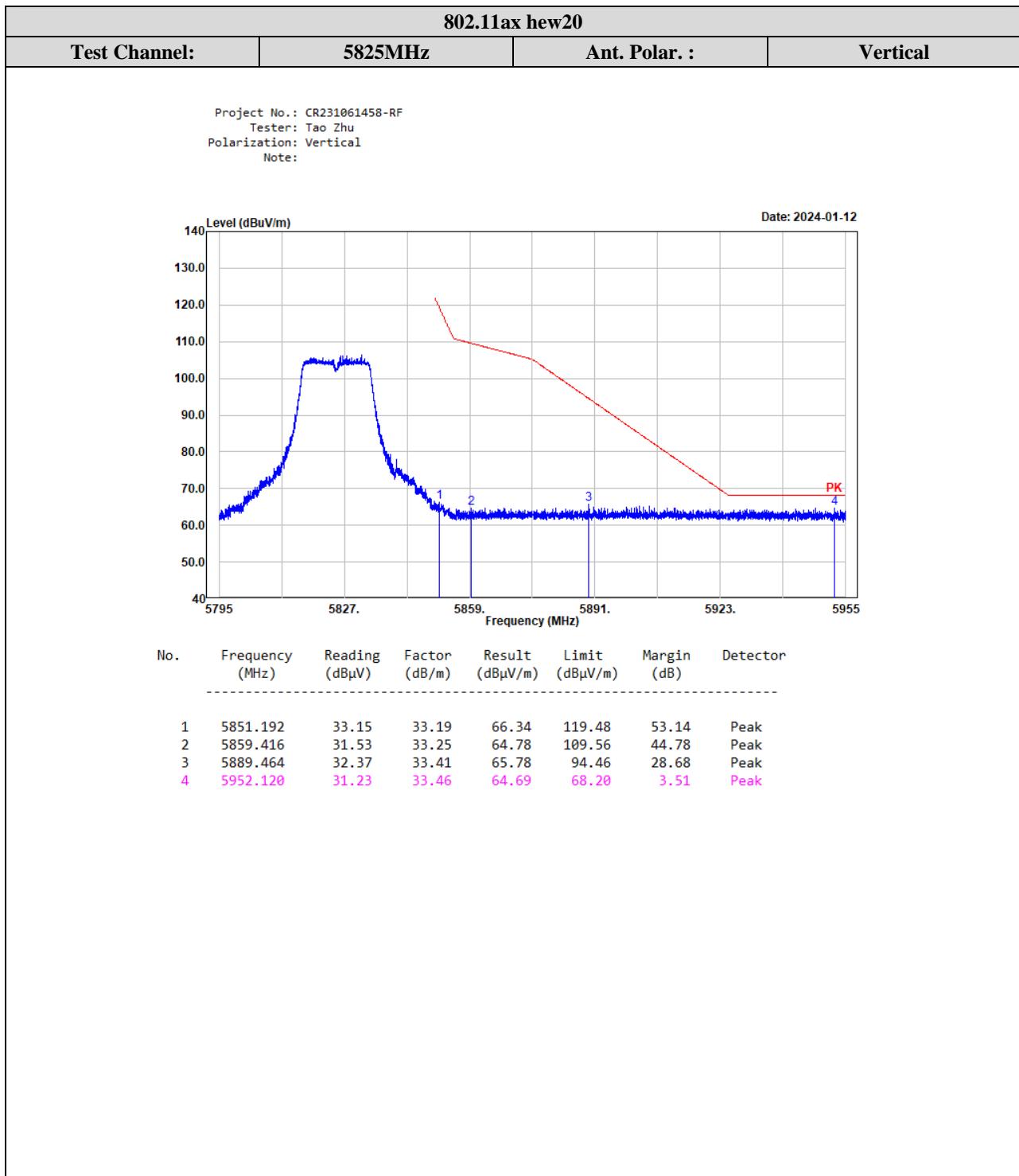


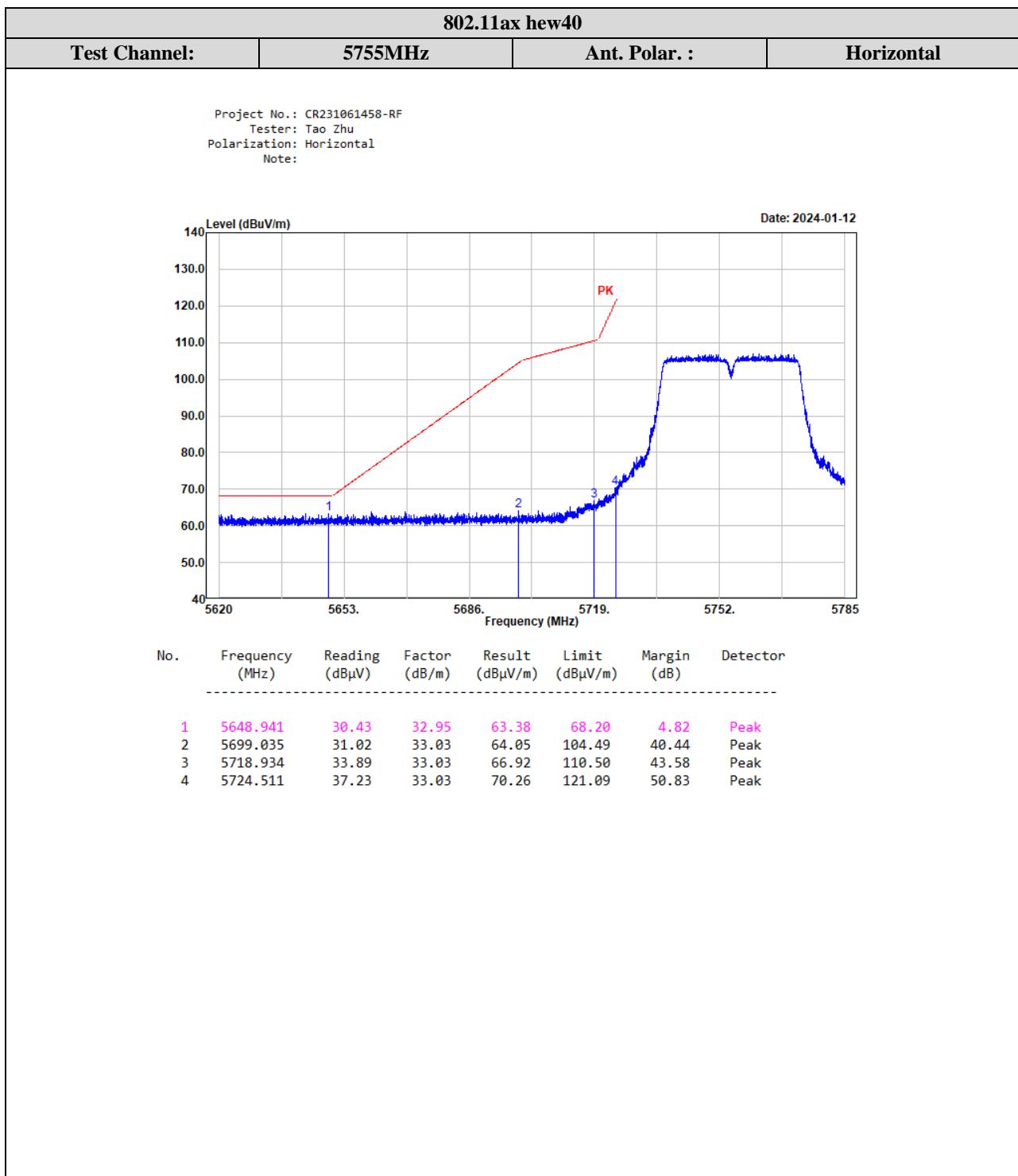
No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	5636.284	30.23	32.91	63.14	68.20	5.06	Peak
2	5691.771	32.06	33.02	65.08	99.13	34.05	Peak
3	5711.339	34.19	33.03	67.22	108.38	41.16	Peak
4	5723.066	34.09	33.03	67.12	117.79	50.67	Peak
5	5852.670	32.19	33.20	65.39	116.11	50.72	Peak
6	5871.166	32.36	33.30	65.66	106.27	40.61	Peak
7	5919.617	31.87	33.46	65.33	72.17	6.84	Peak
8	5944.010	31.54	33.46	65.00	68.20	3.20	Peak

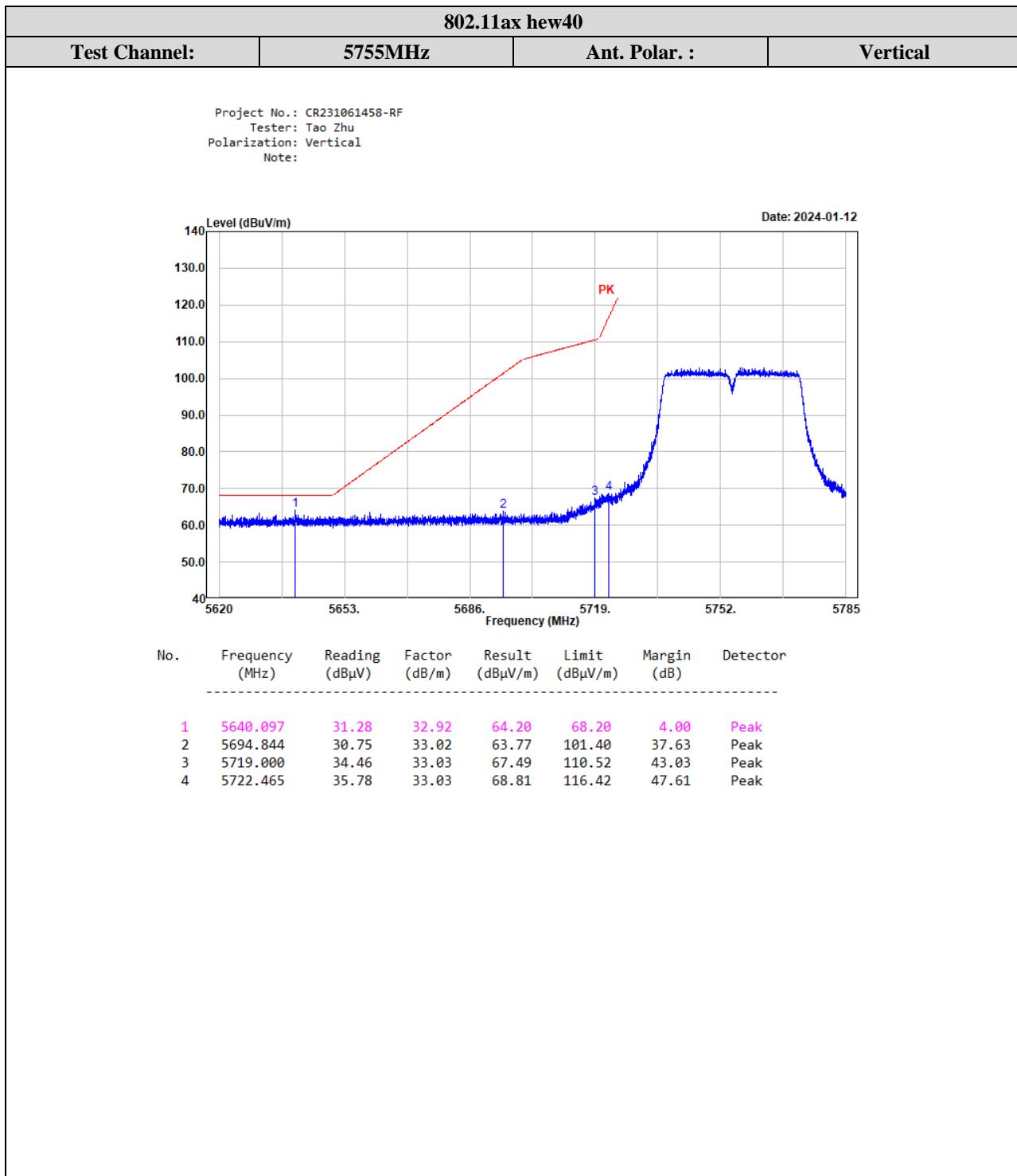


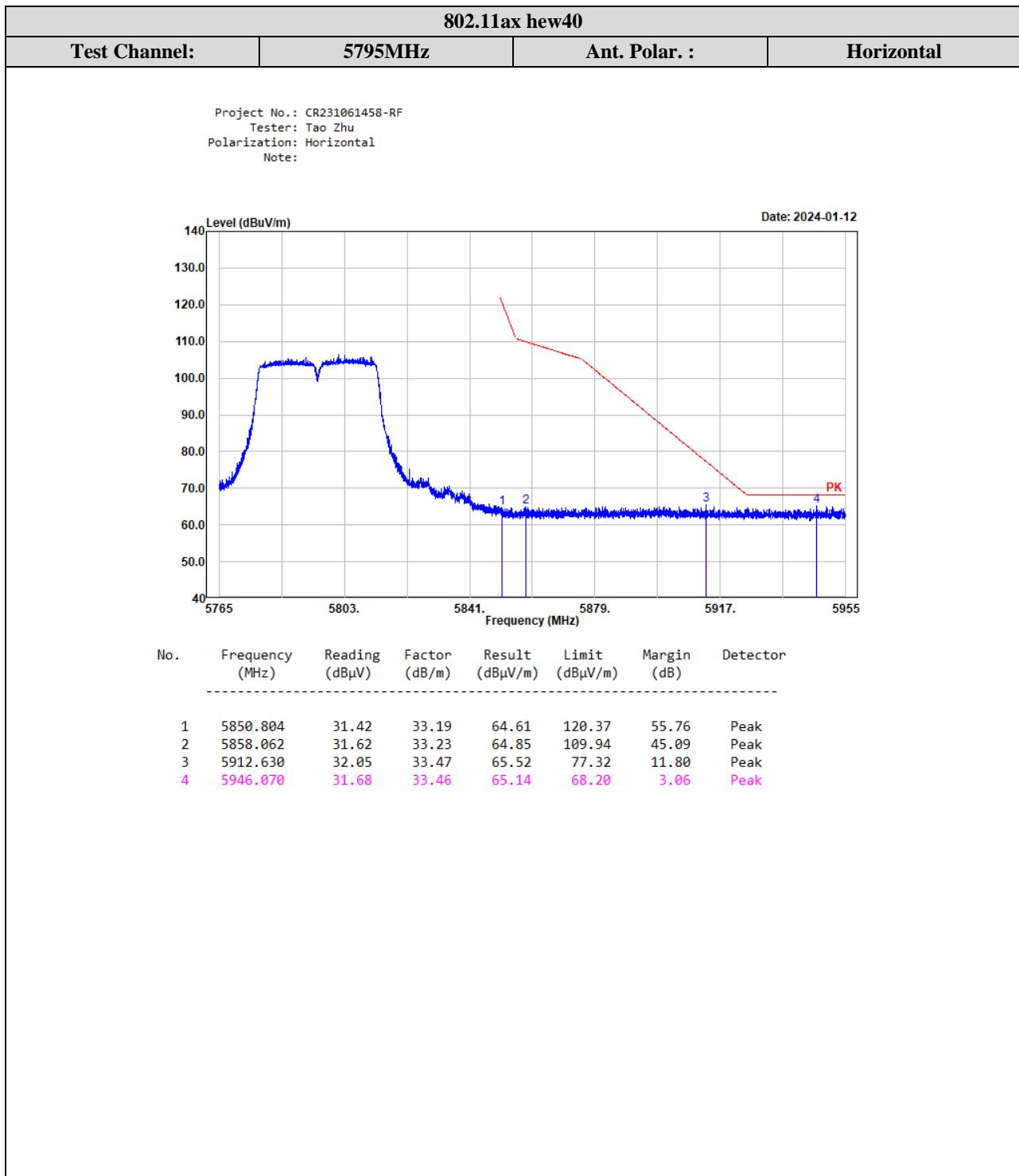


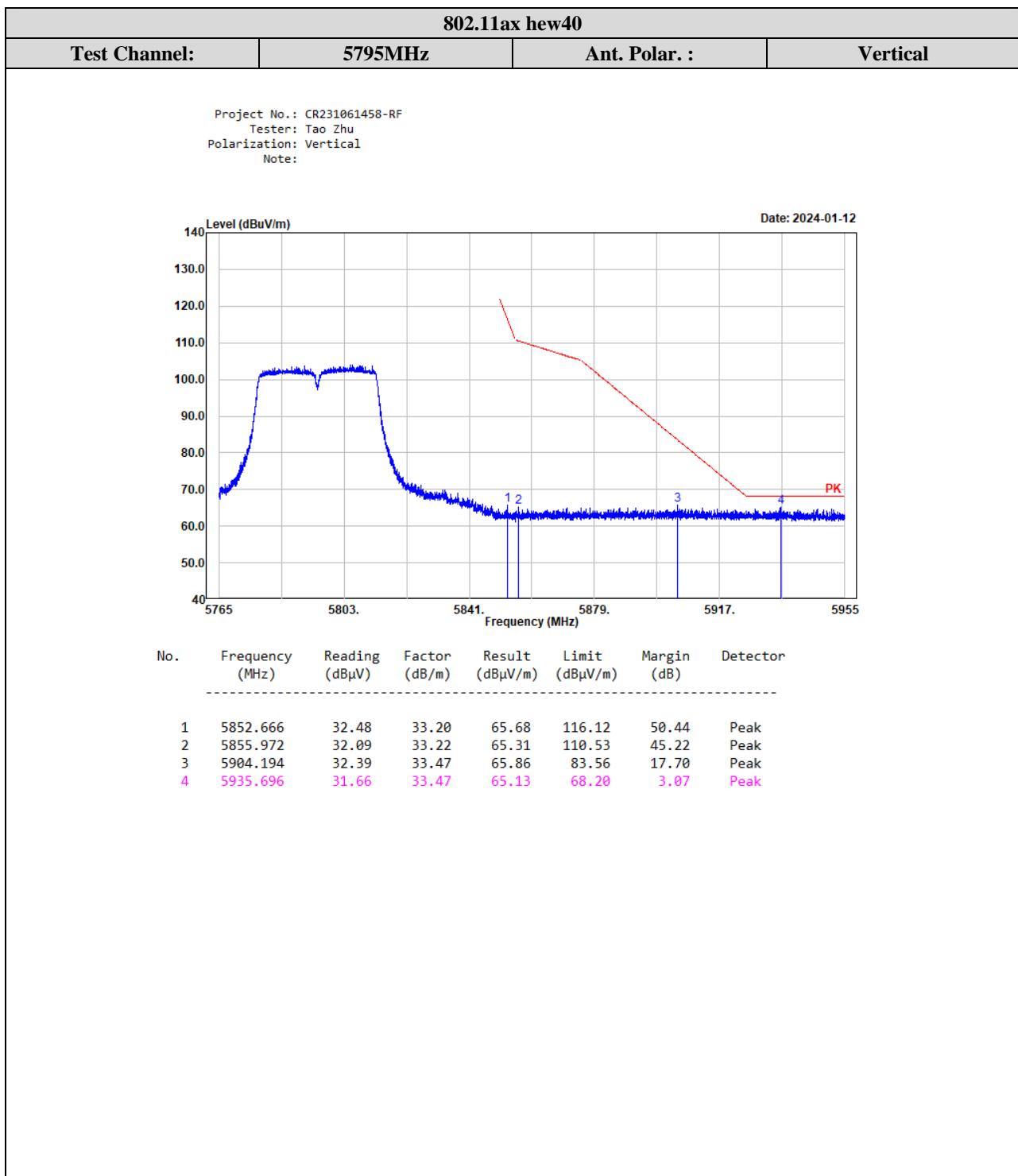


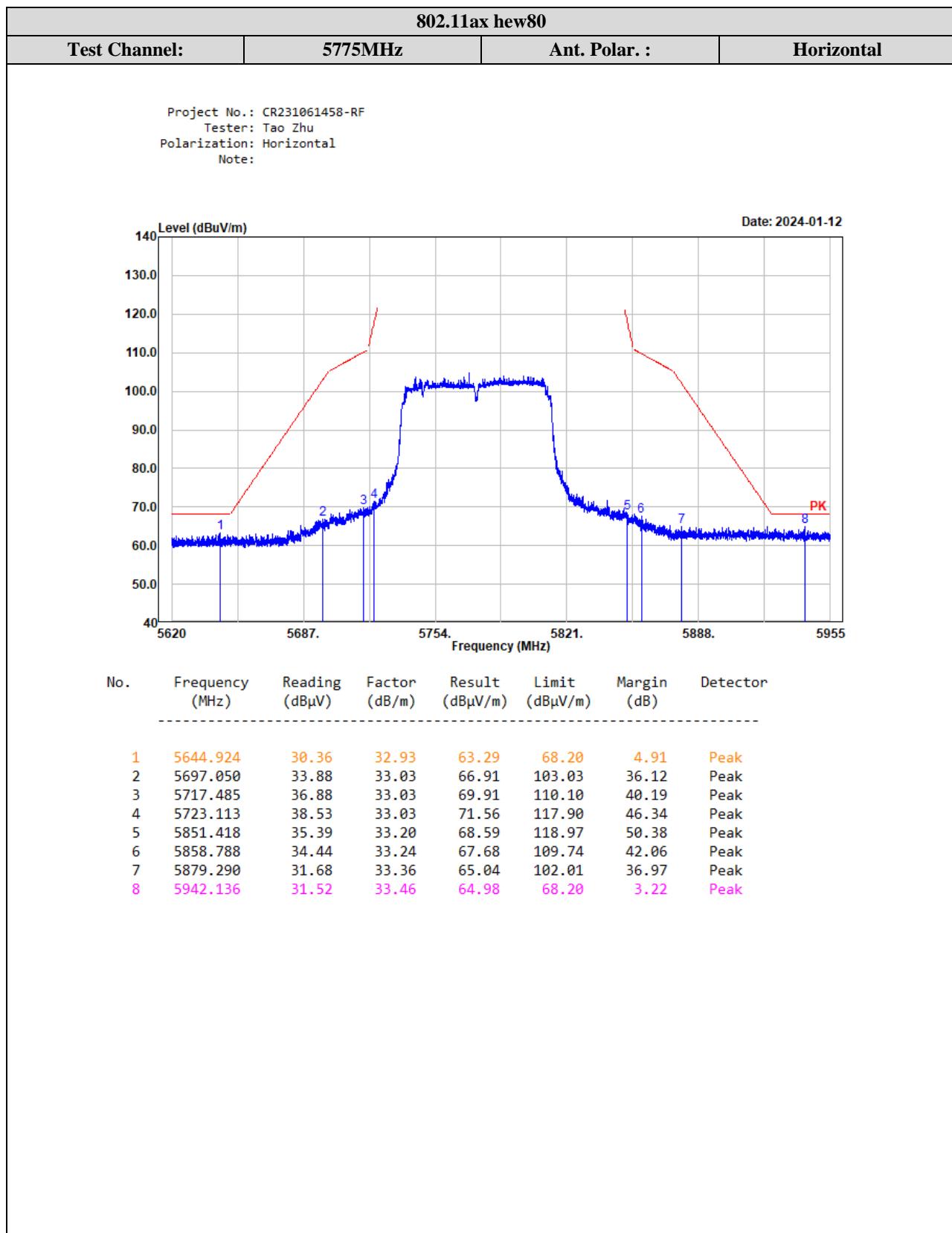


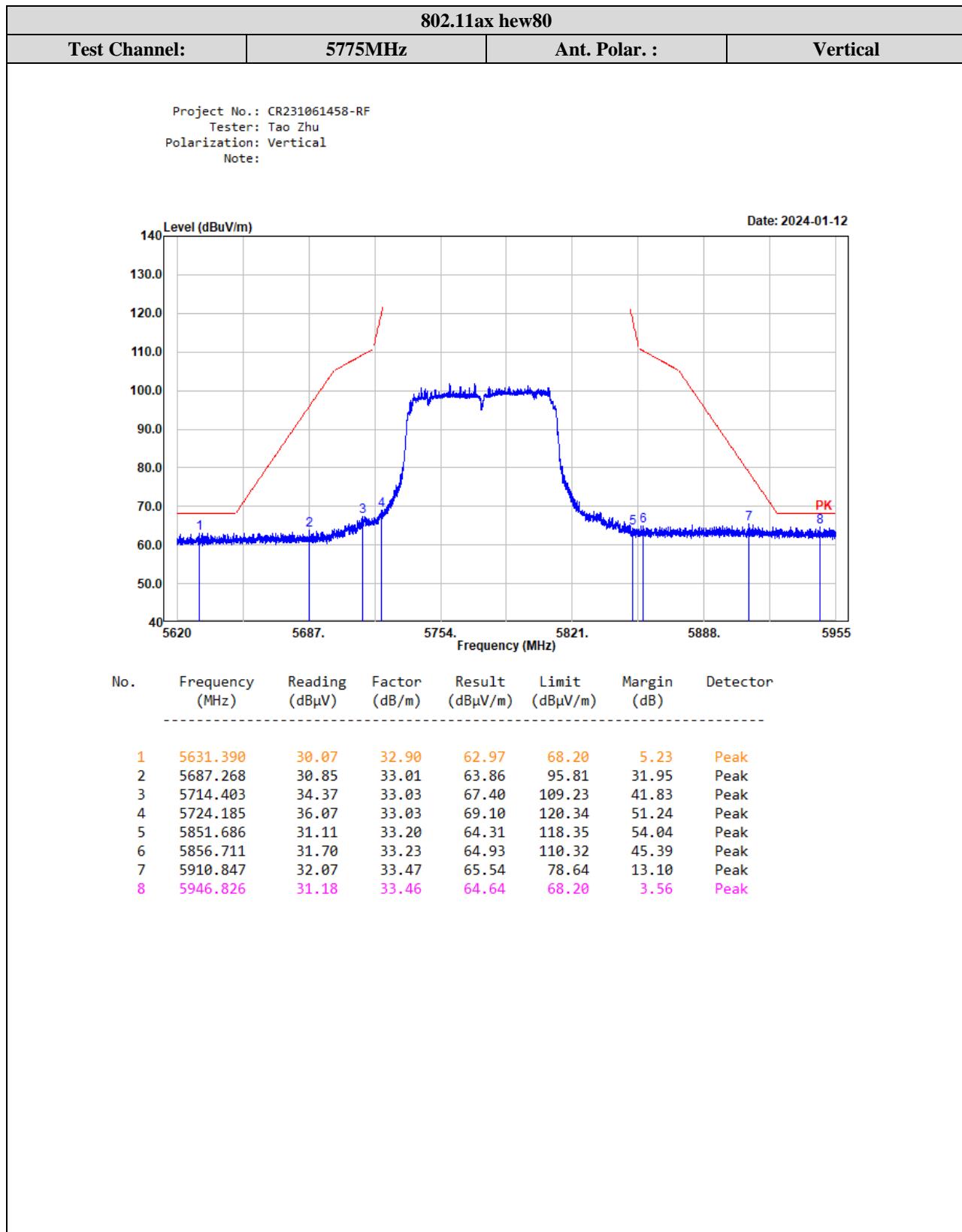




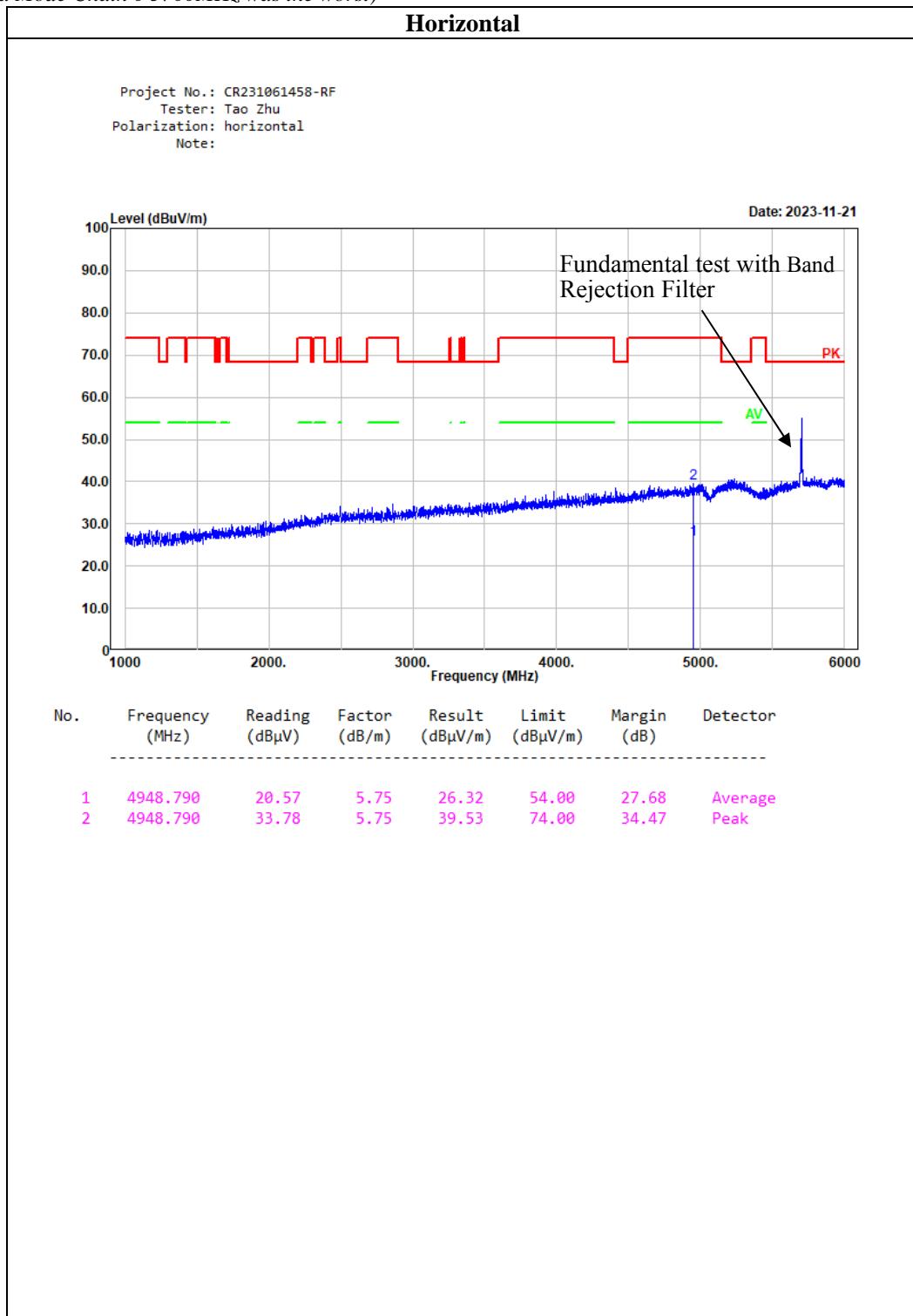


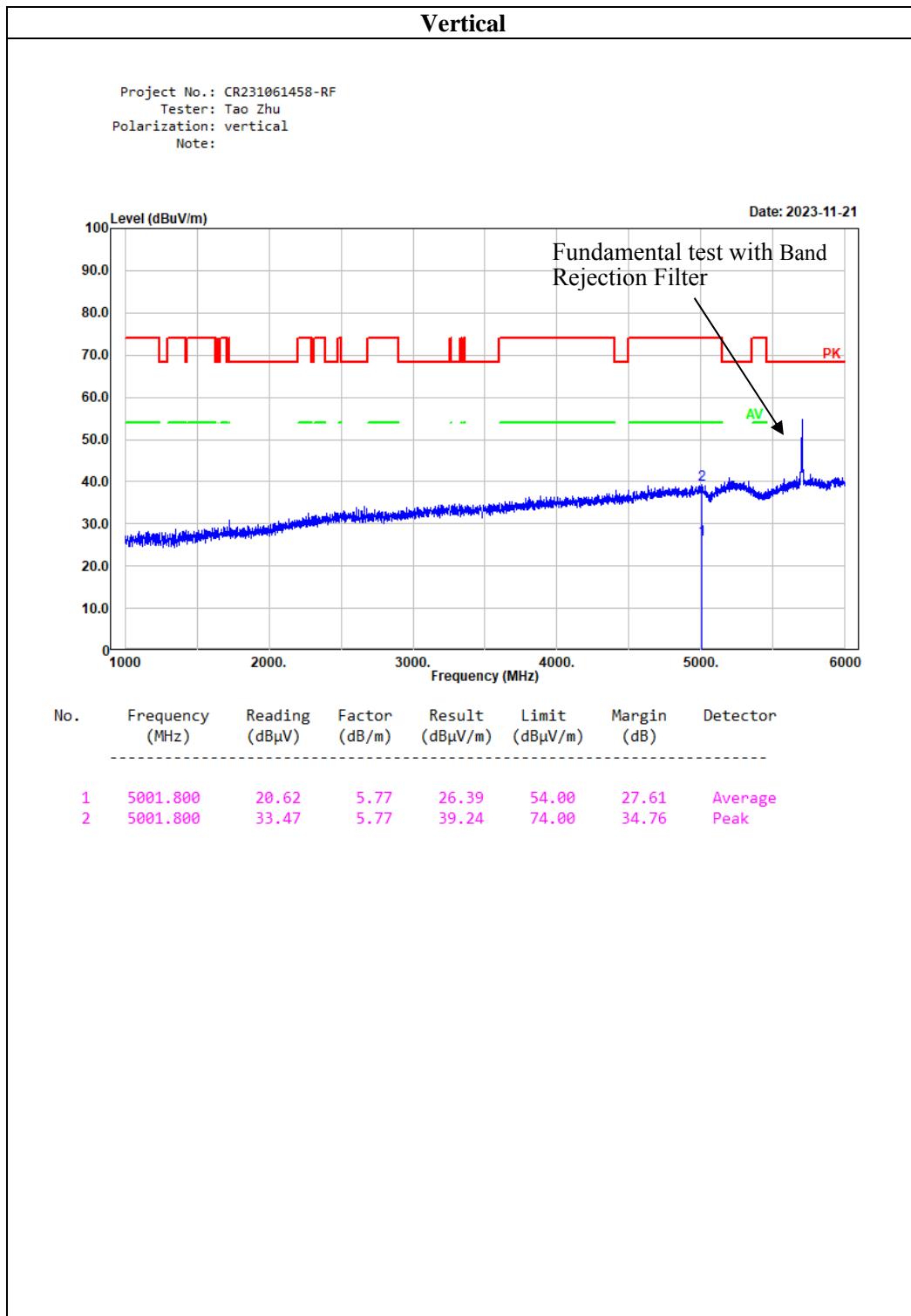


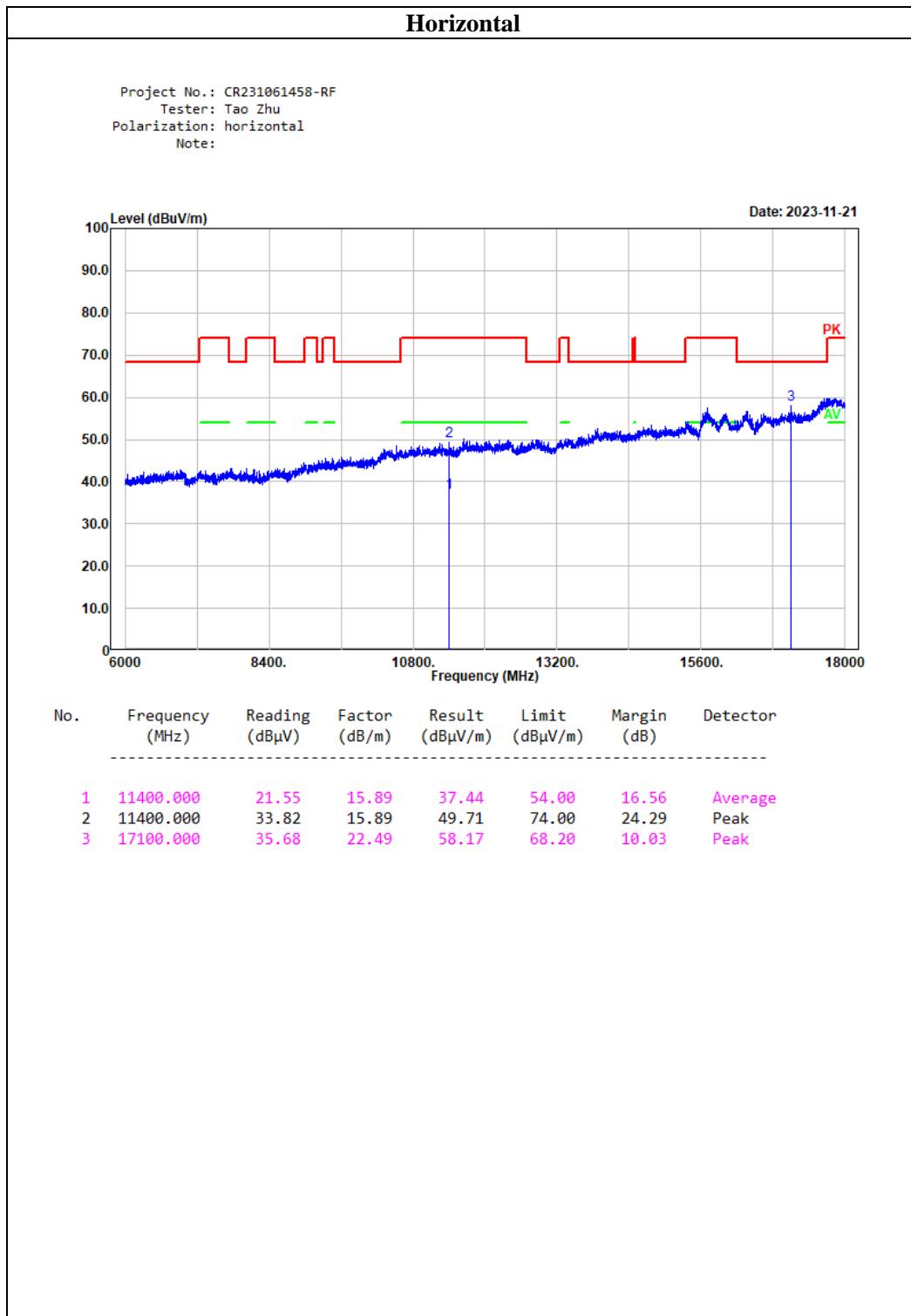


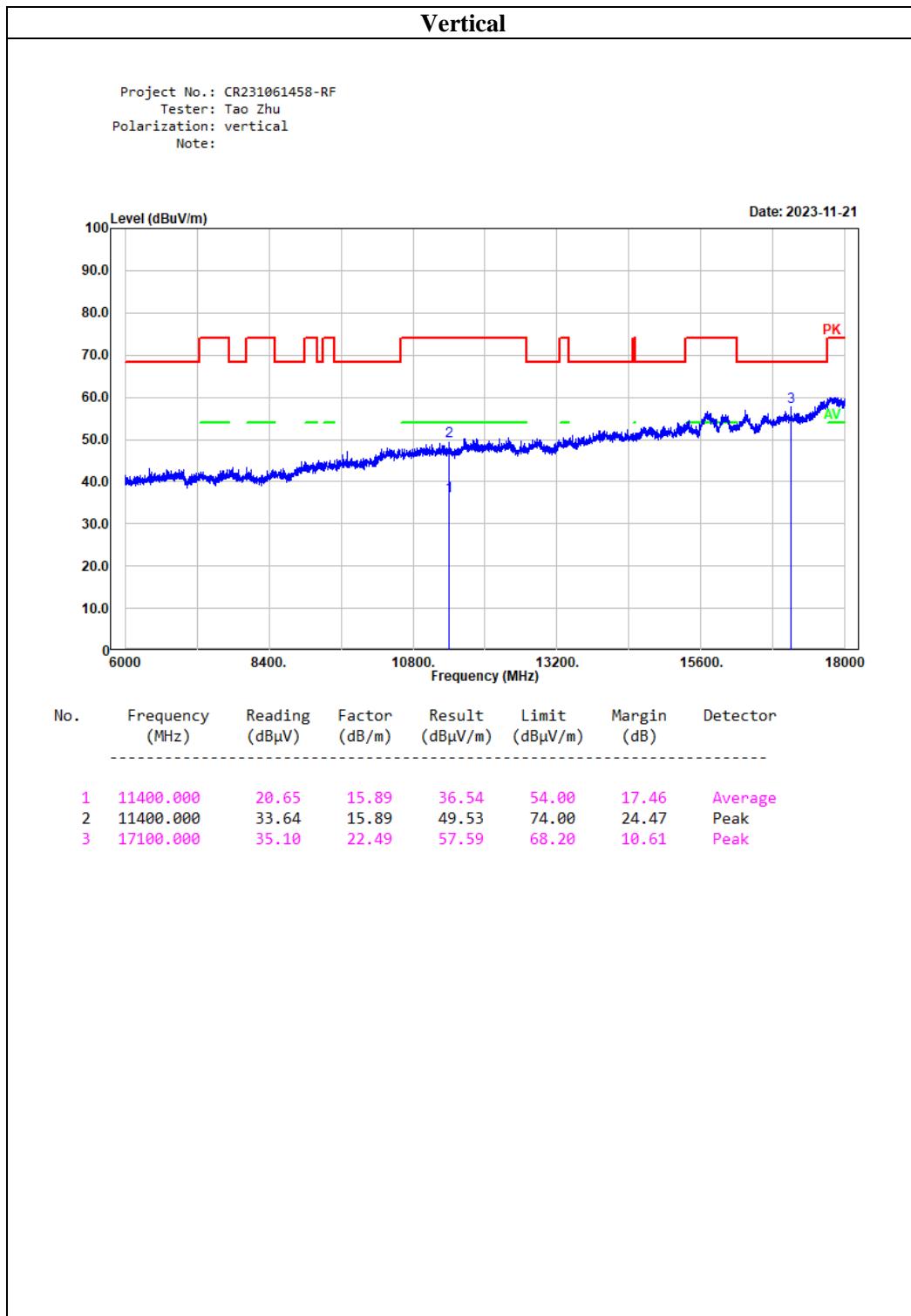


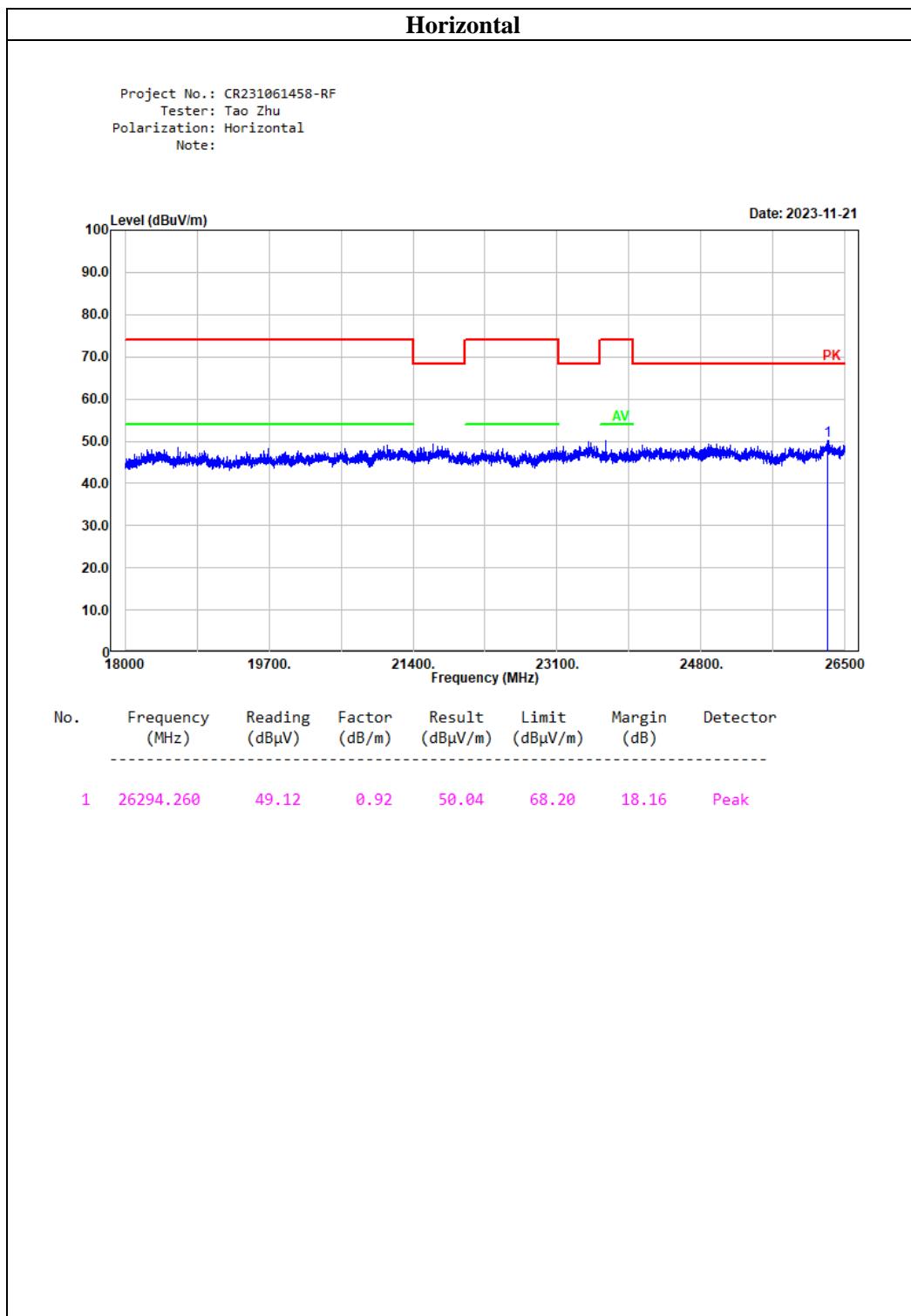
5) Listed with the worst radiation spurious emissions margin test plots
(802.11a Mode Chain 0 5700MHz was the worst)

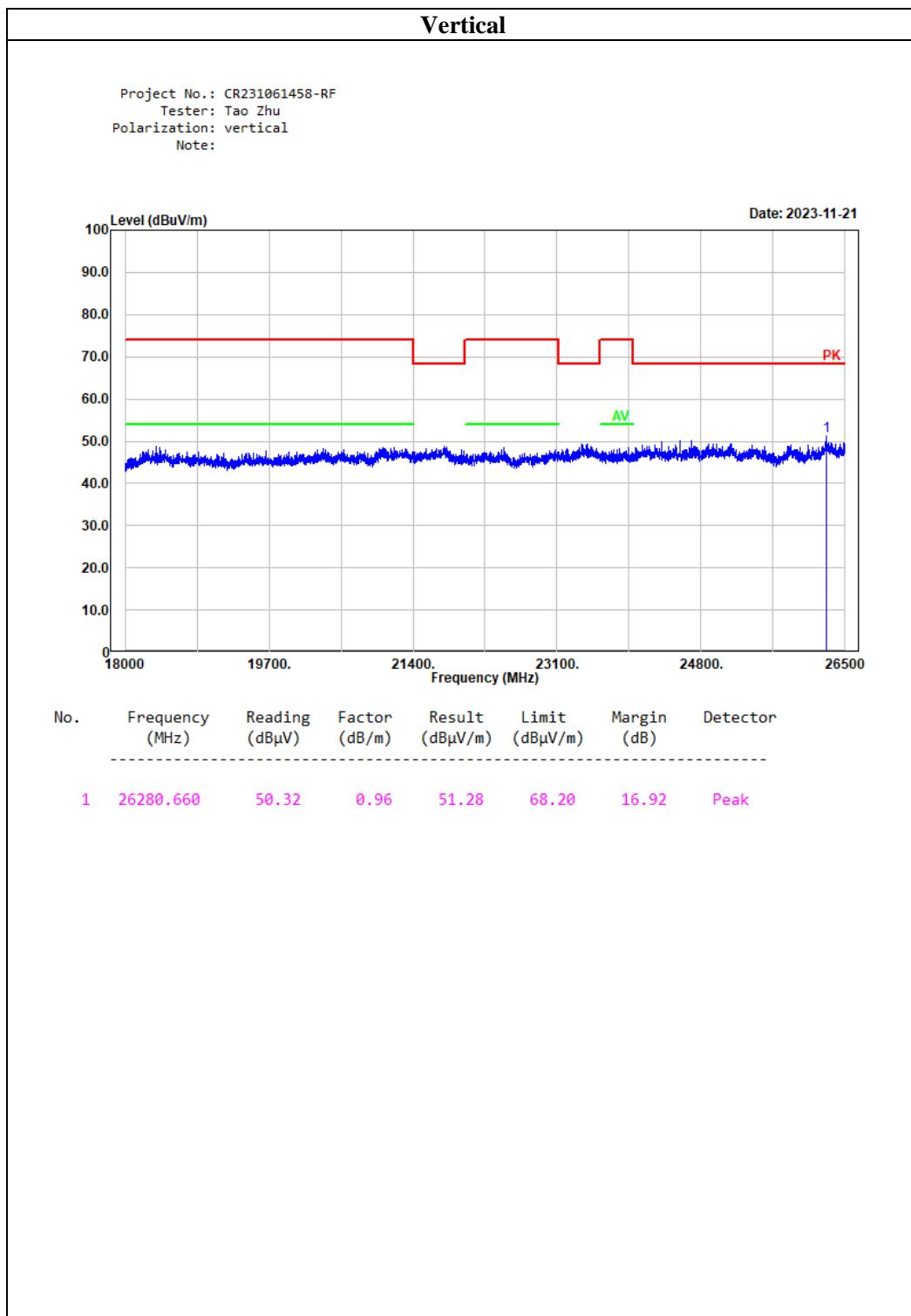






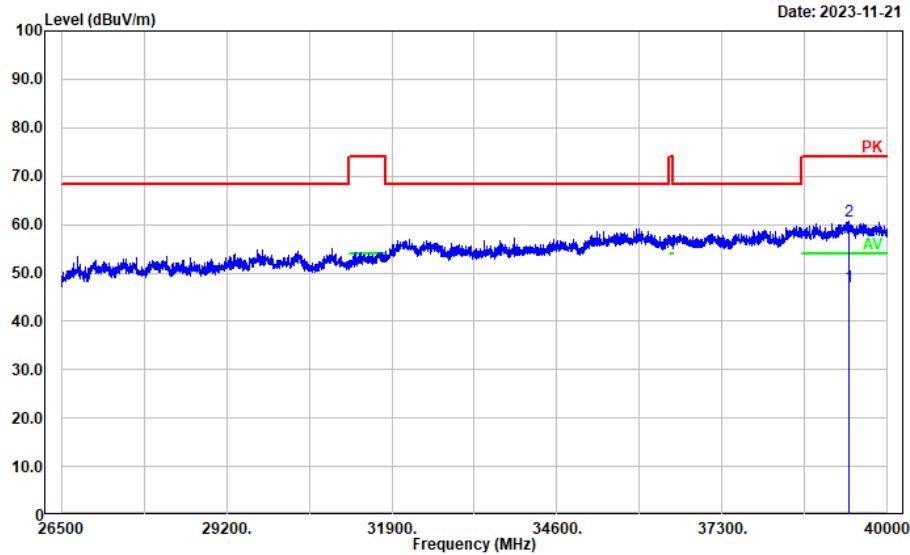


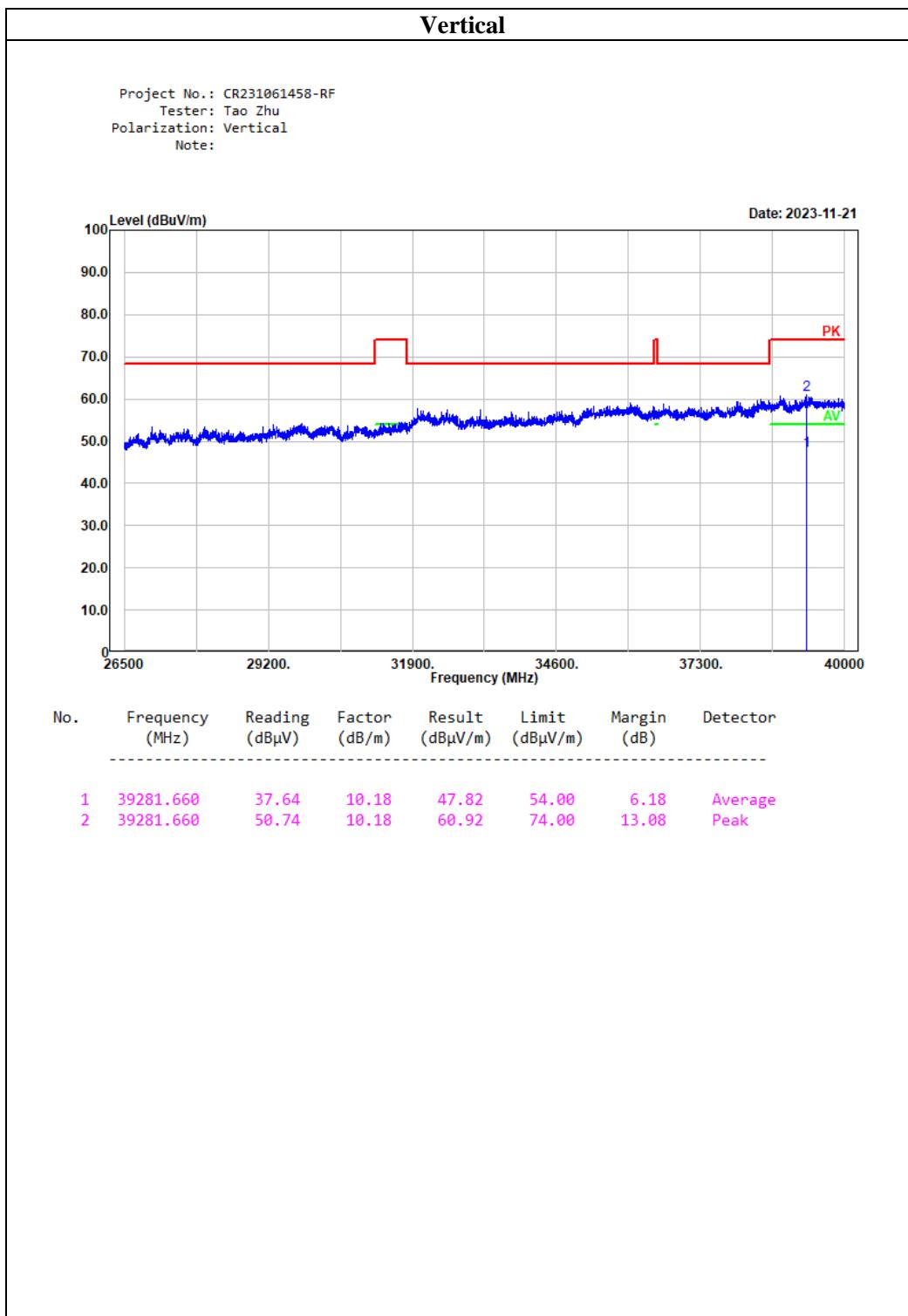




Horizontal

Project No.: CR231061458-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:





4.3 Emission Bandwidth

Serial Number:	2CHV-2	Test Date:	2023/11/13-2024/1/10
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su/Ling Ling Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	24.5-26.1	Relative Humidity: (%)	45-58	ATM Pressure: (kPa)	100.7-101.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180	23.600	16.880
	5200	23.760	16.960
	5240	23.920	16.960
802.11n ht20	5180	24.439	17.949
	5200	24.279	17.949
	5240	24.199	17.885
802.11n ht40	5190	43.910	36.282
	5230	43.750	36.282
802.11ac vht80	5210	84.936	76.410
802.11ax hew20	5180	22.800	19.120
	5200	22.480	19.120
	5240	22.320	19.120
802.11ax hew40	5190	41.440	38.080
	5230	41.280	38.080
802.11ax hew80	5210	84.480	77.760

Note:

1. Pre-scan all antennas, worst case (Chain 0) was reported.
2. The 99% Occupied Bandwidth have not fall into the band 5250-5350MHz, please refer to the test plots of 99% Occupied Bandwidth

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260	23.760	16.960
	5280	23.680	16.960
	5320	23.680	16.960
802.11n ht20	5260	24.198	17.949
	5280	24.359	17.949
	5320	24.359	17.949
802.11n ht40	5270	44.231	36.282
	5310	43.269	36.154
802.11ac vht80	5290	85.256	76.154
802.11ax hew20	5260	22.400	19.120
	5280	22.400	19.120
	5320	22.560	19.120
802.11ax hew40	5270	41.600	38.080
	5310	41.600	38.080
802.11ax hew80	5290	84.480	77.440

Note:

1. Pre-scan all antennas, worst case (Chain 0) was reported.
2. the 99% Occupied Bandwidth have not fall into the band 5150-5250MHz, please refer to the test plots of 99% Occupied Bandwidth.

5470-5725 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5500	23.200	16.880
	5580	23.280	16.960
	5700	23.600	16.880
	5720	24.207	16.880
802.11n ht20	5500	24.119	17.949
	5580	24.519	17.949
	5700	24.199	17.949
	5720	24.119	17.949
802.11n ht40	5510	44.071	36.282
	5550	44.071	36.282
	5670	44.551	36.154
	5710	43.590	36.280
802.11ac vht80	5530	84.615	76.154
	5610	85.256	76.154
	5690	85.897	76.154
802.11ax hew20	5500	22.400	19.120
	5580	22.560	19.120
	5700	22.560	19.120
	5720	22.580	19.120

802.11ax hew40	5510	41.920	37.920
	5550	41.440	38.080
	5670	41.440	38.080
	5710	41.700	37.920
802.11ax hew80	5530	84.800	77.760
	5610	85.040	77.760
	5690	85.120	77.760

Note:

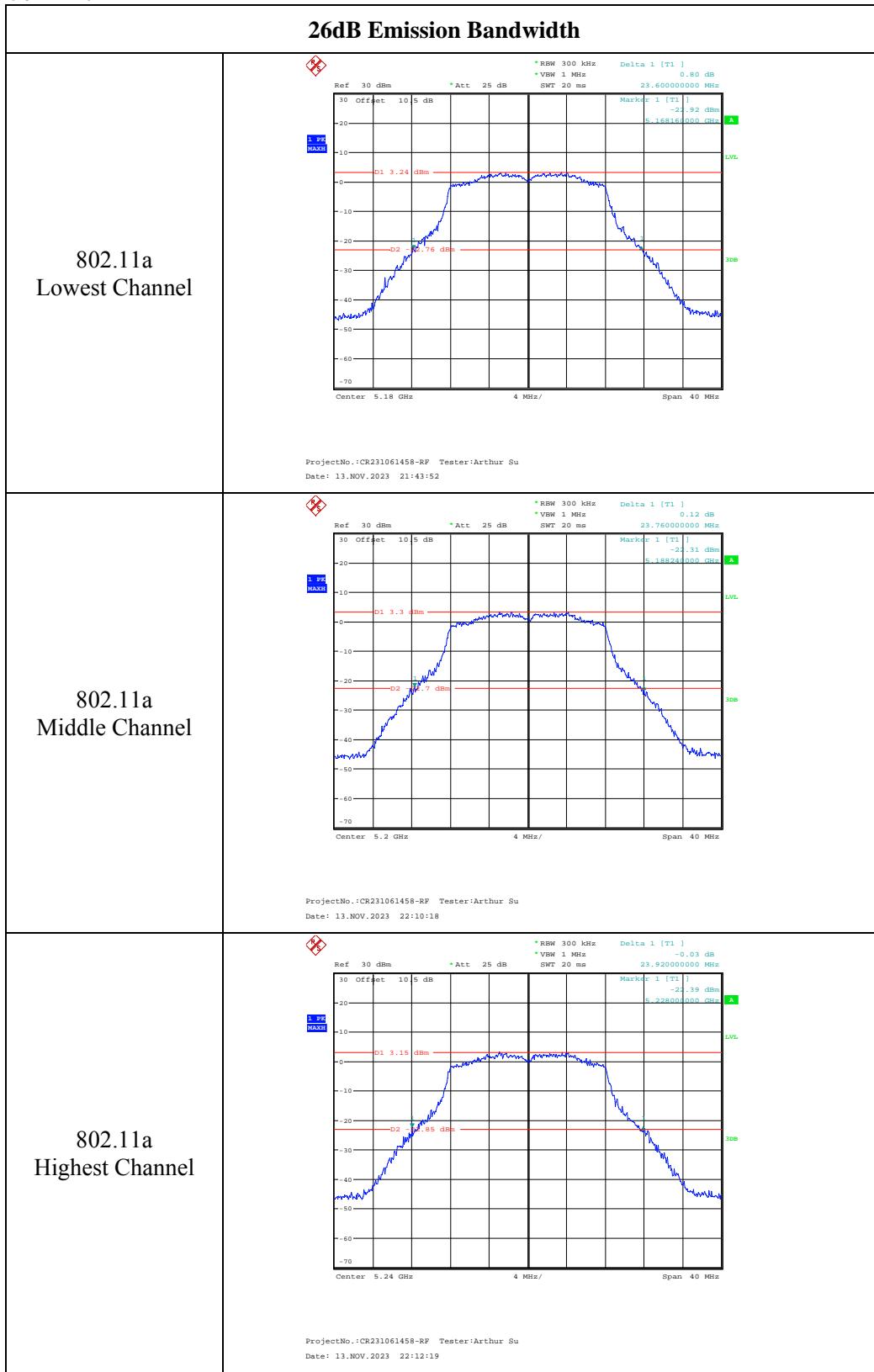
1. Pre-scan all antennas, worst case (Chain 0) was reported.
2. the 99% Occupied Bandwidth have not fall into the band 5725-5850MHz, please refer to the test plots of 99% Occupied Bandwidth.

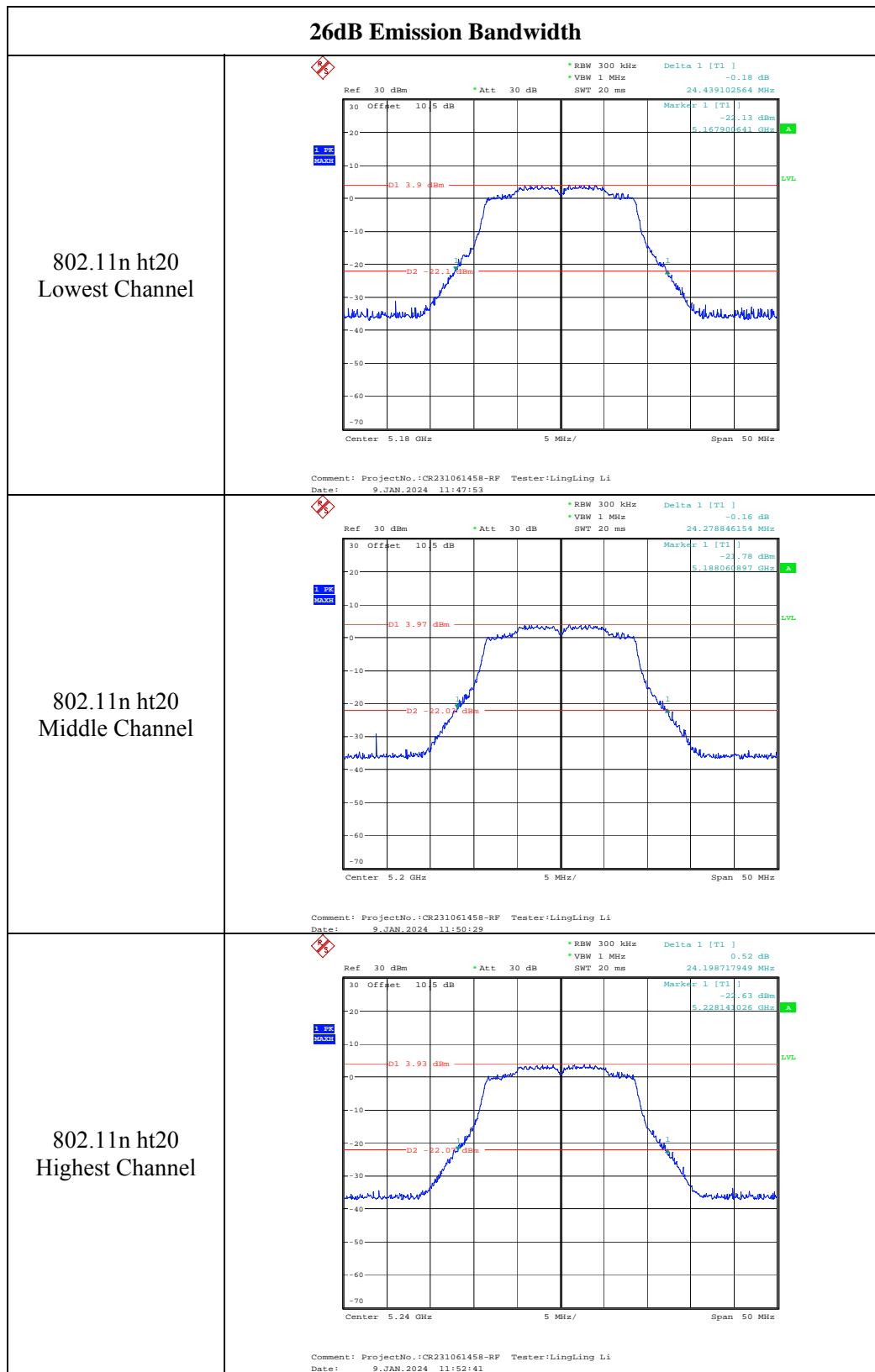
5725-5850 MHz:

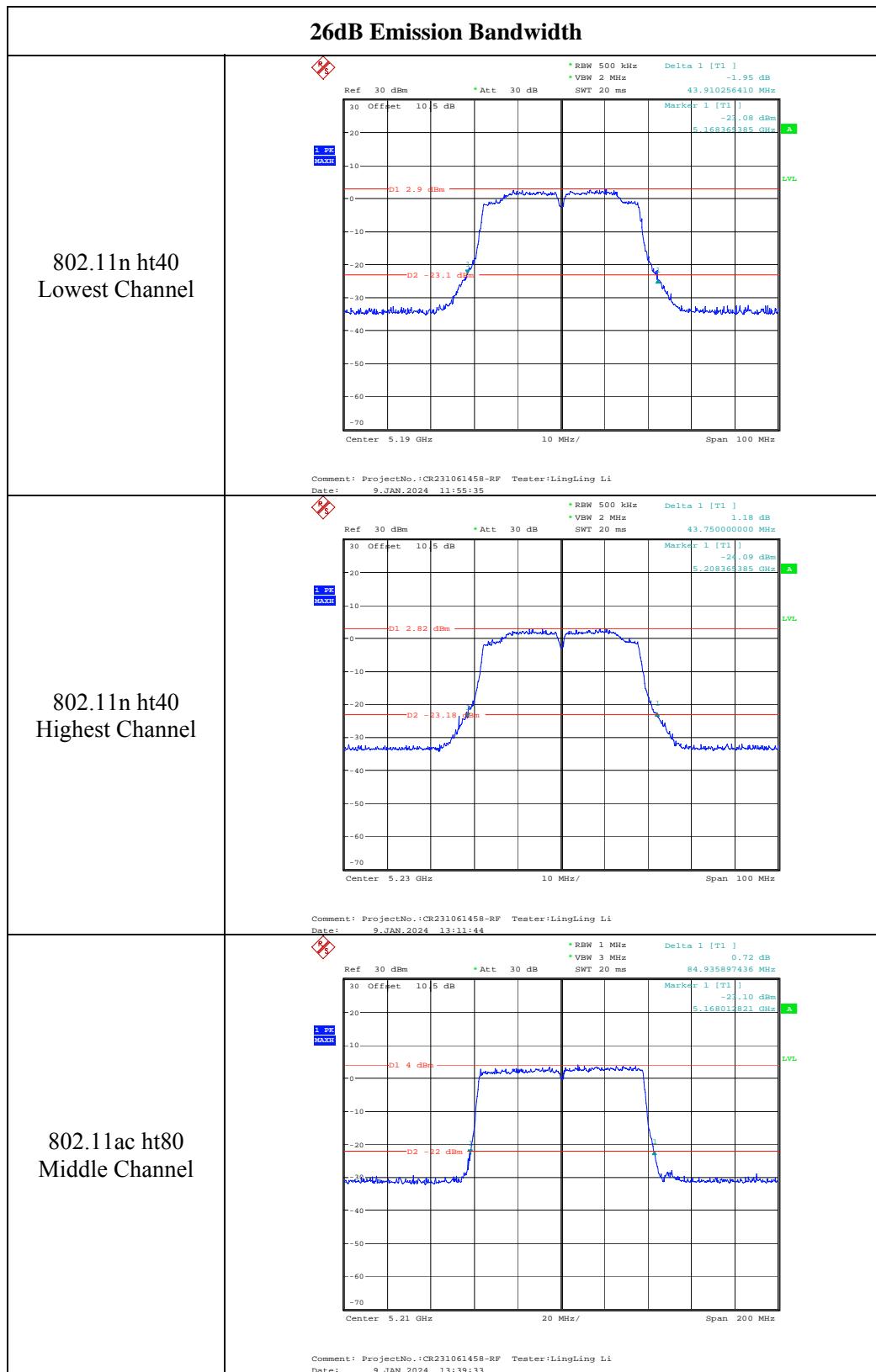
Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5745	16.400	17.200
	5785	16.400	17.120
	5825	16.400	17.200
802.11n ht20	5745	17.628	18.269
	5785	17.628	18.333
	5825	17.628	18.269
802.11n ht40	5755	36.282	36.795
	5795	36.538	36.667
802.11ac vht80	5775	76.923	76.410
802.11ax hew20	5745	19.120	19.120
	5785	19.120	19.200
	5825	19.120	19.200
802.11ax hew40	5755	38.080	37.920
	5795	38.240	38.080
802.11ax hew80	5775	77.760	77.760

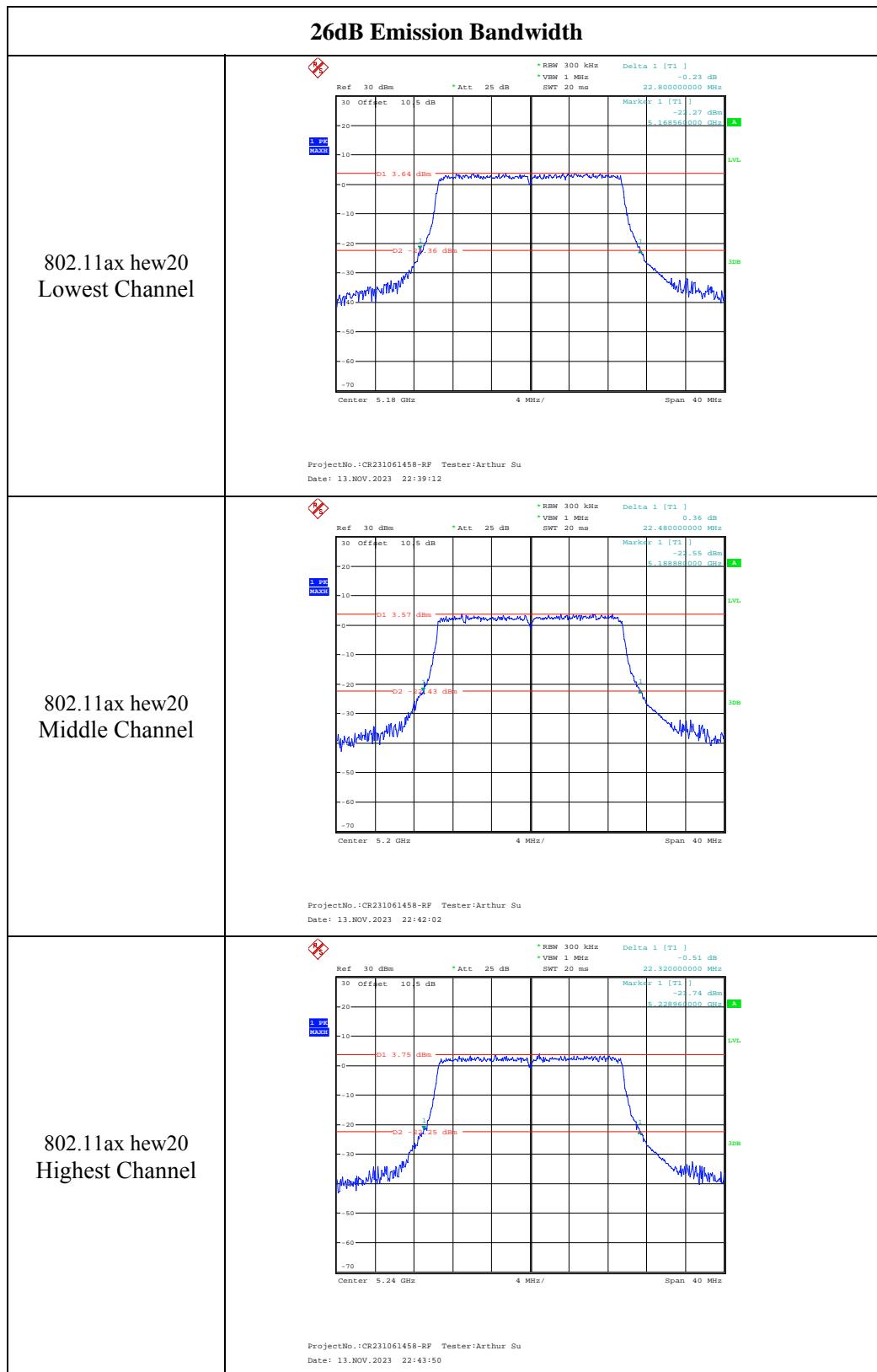
Note:

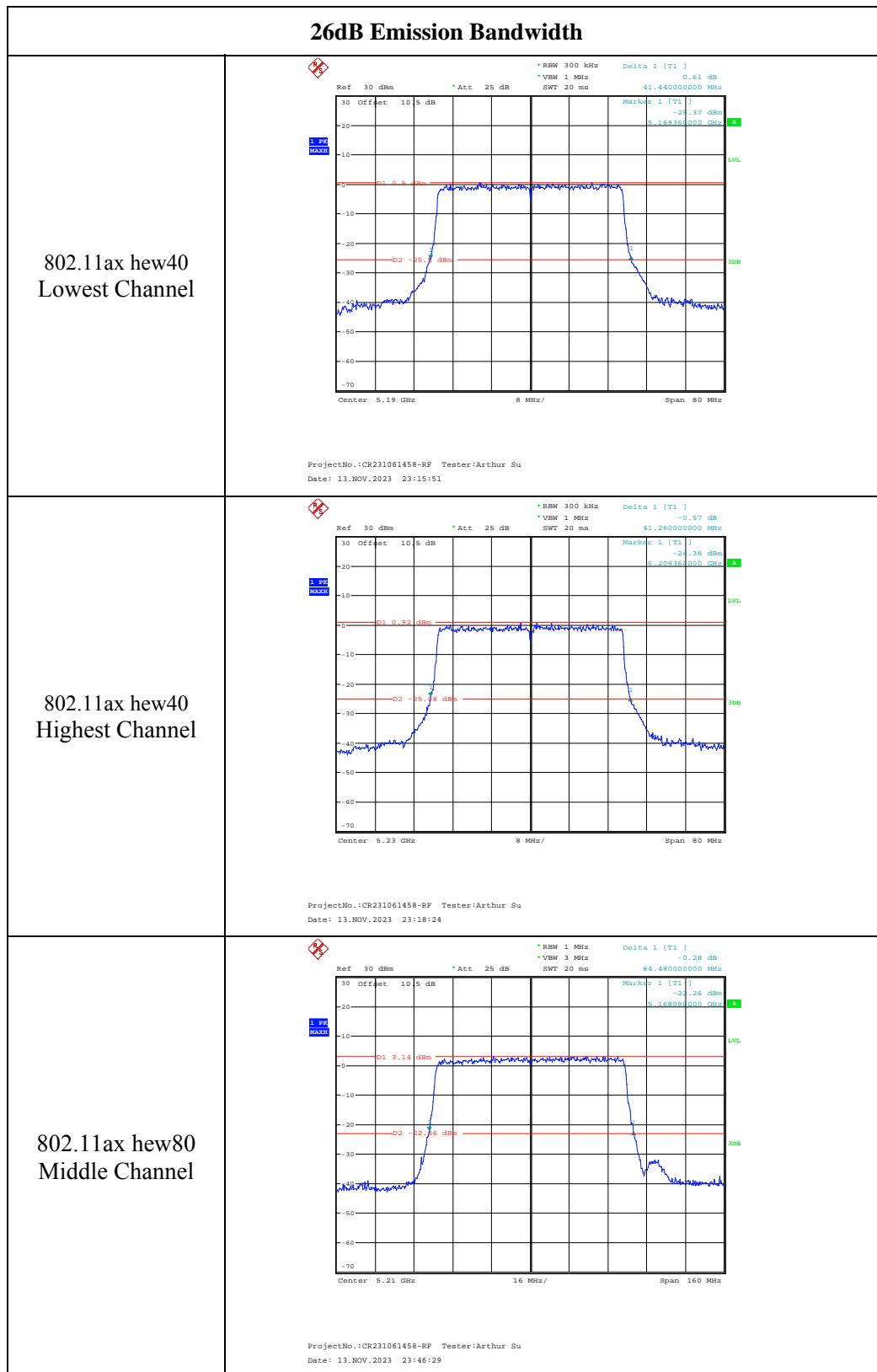
1. 6dB Emission Bandwidth Limit: ≥ 0.5 MHz
2. Pre-scan all antennas, worst case (Chain 0) was reported.
3. the 99% Occupied Bandwidth have not fall into the band 5470-5725MHz, please refer to the test plots of 99% Occupied Bandwidth.

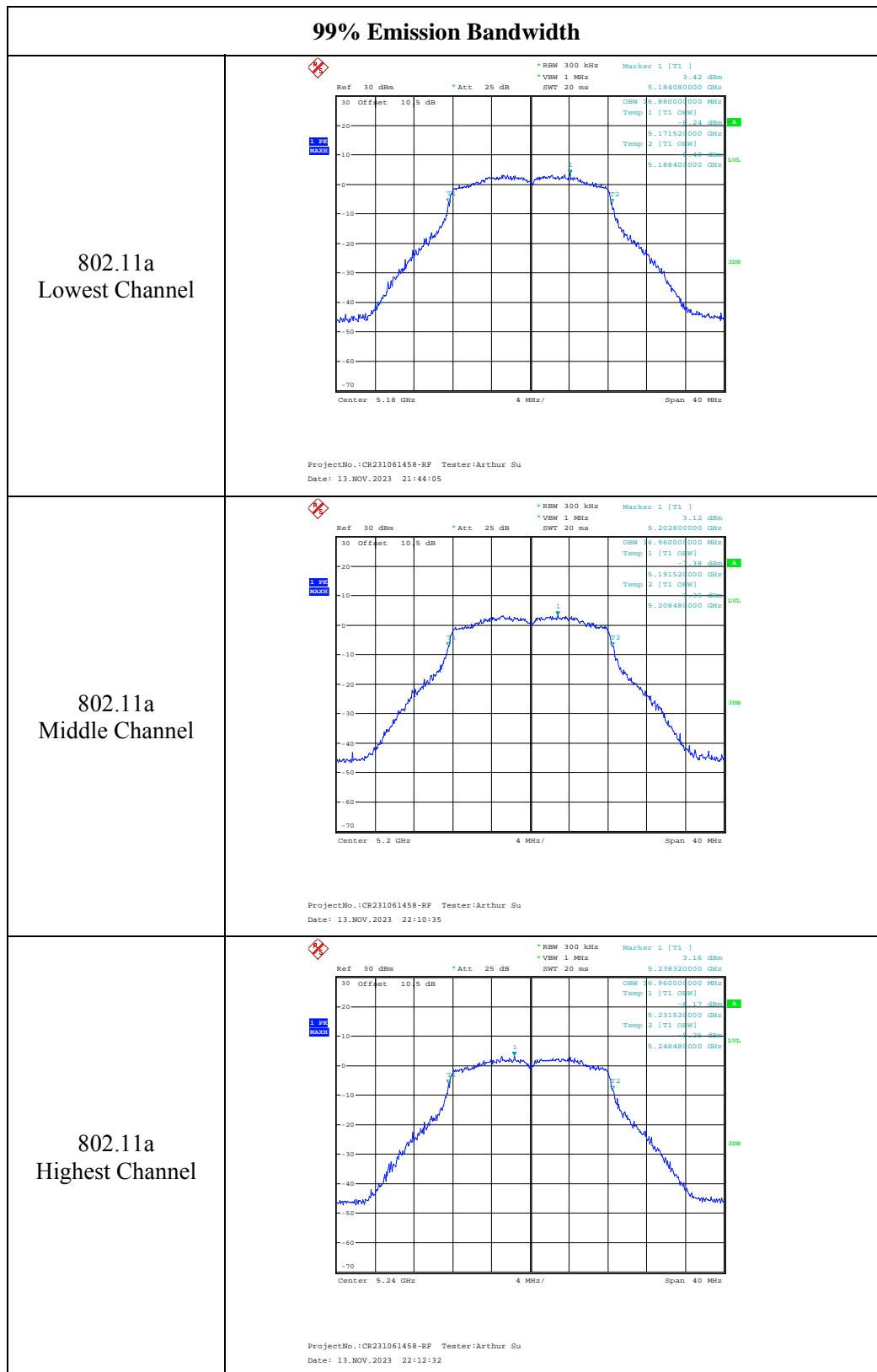
5150-5250MHz:

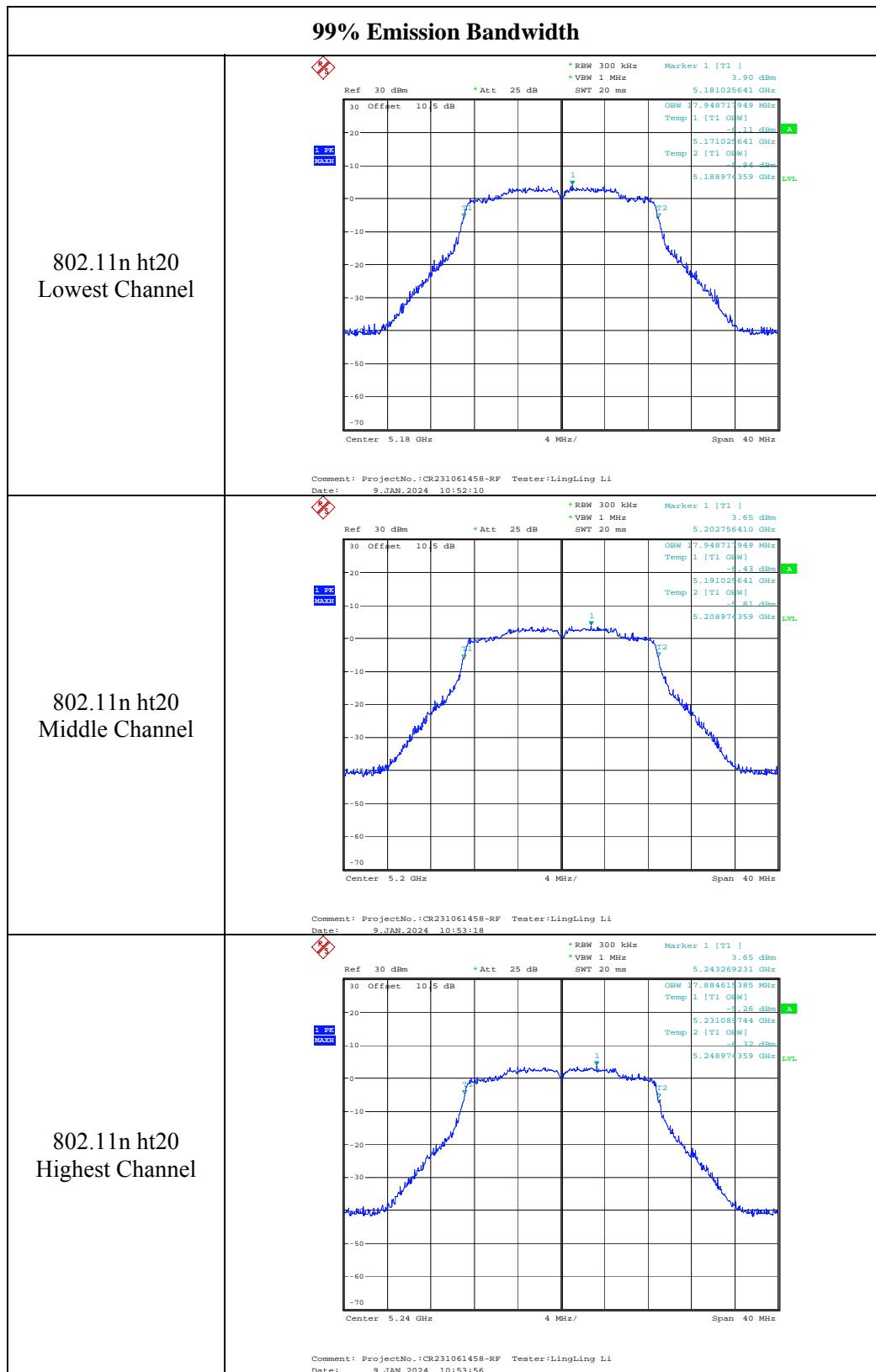


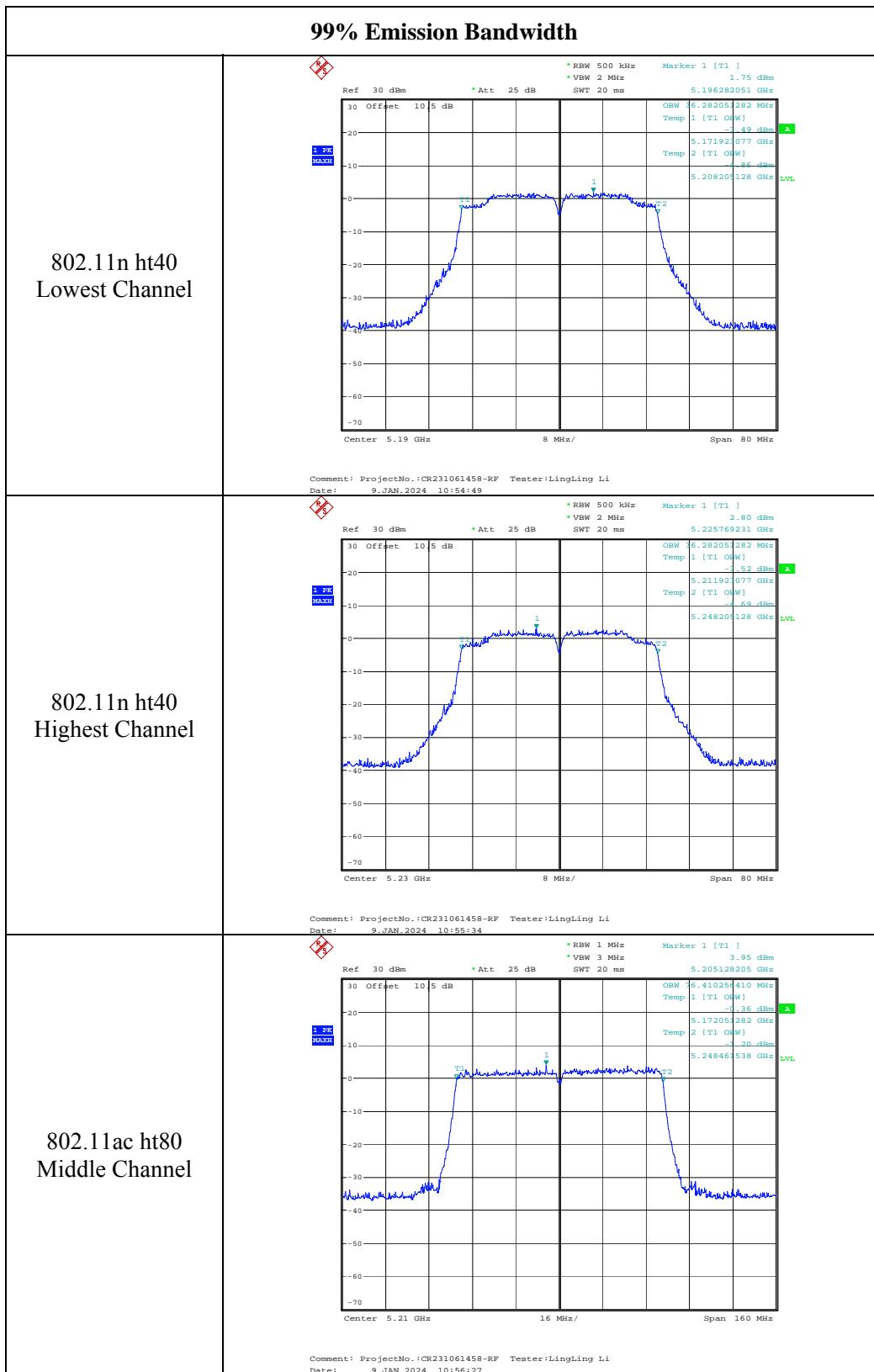


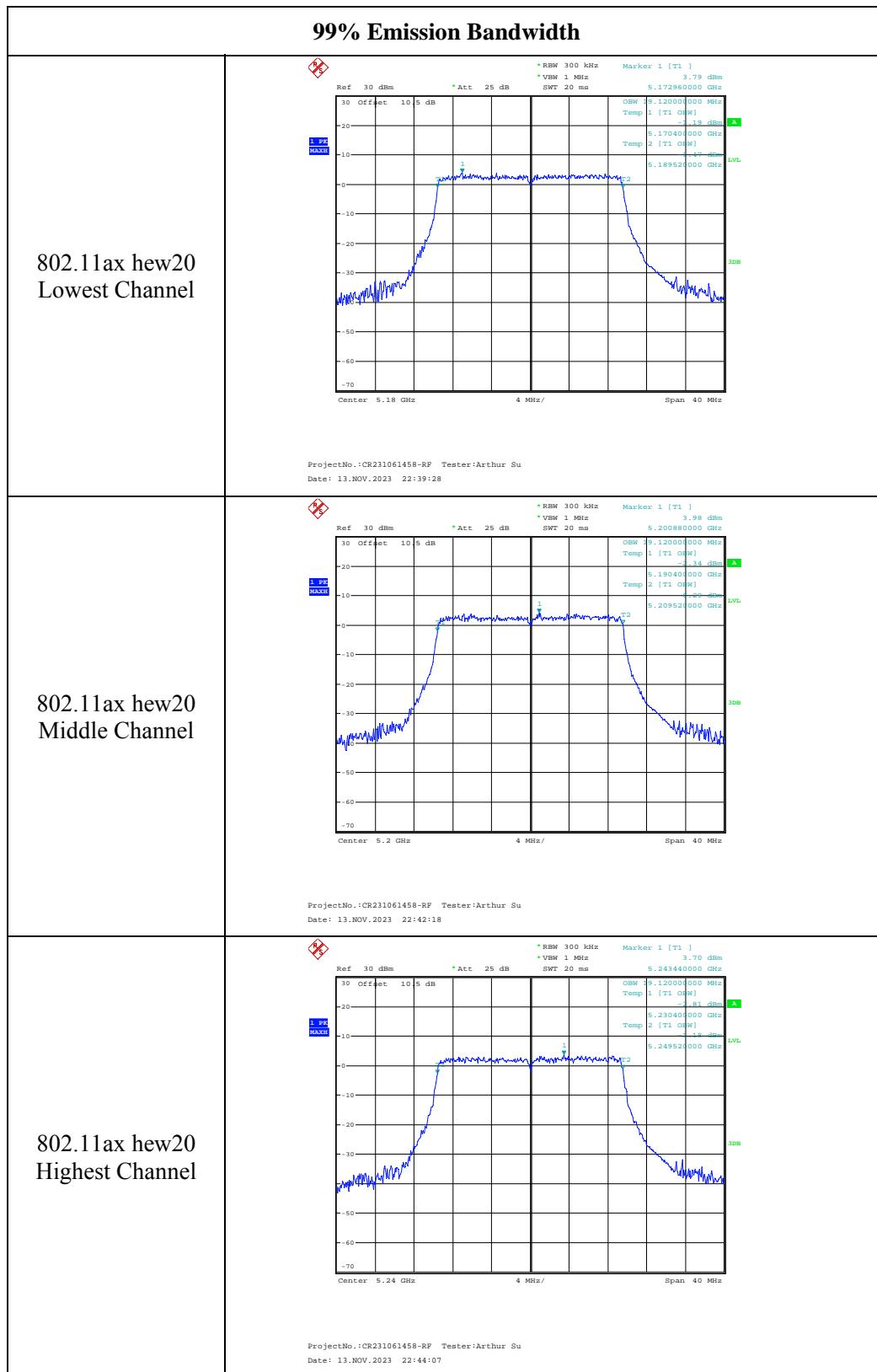


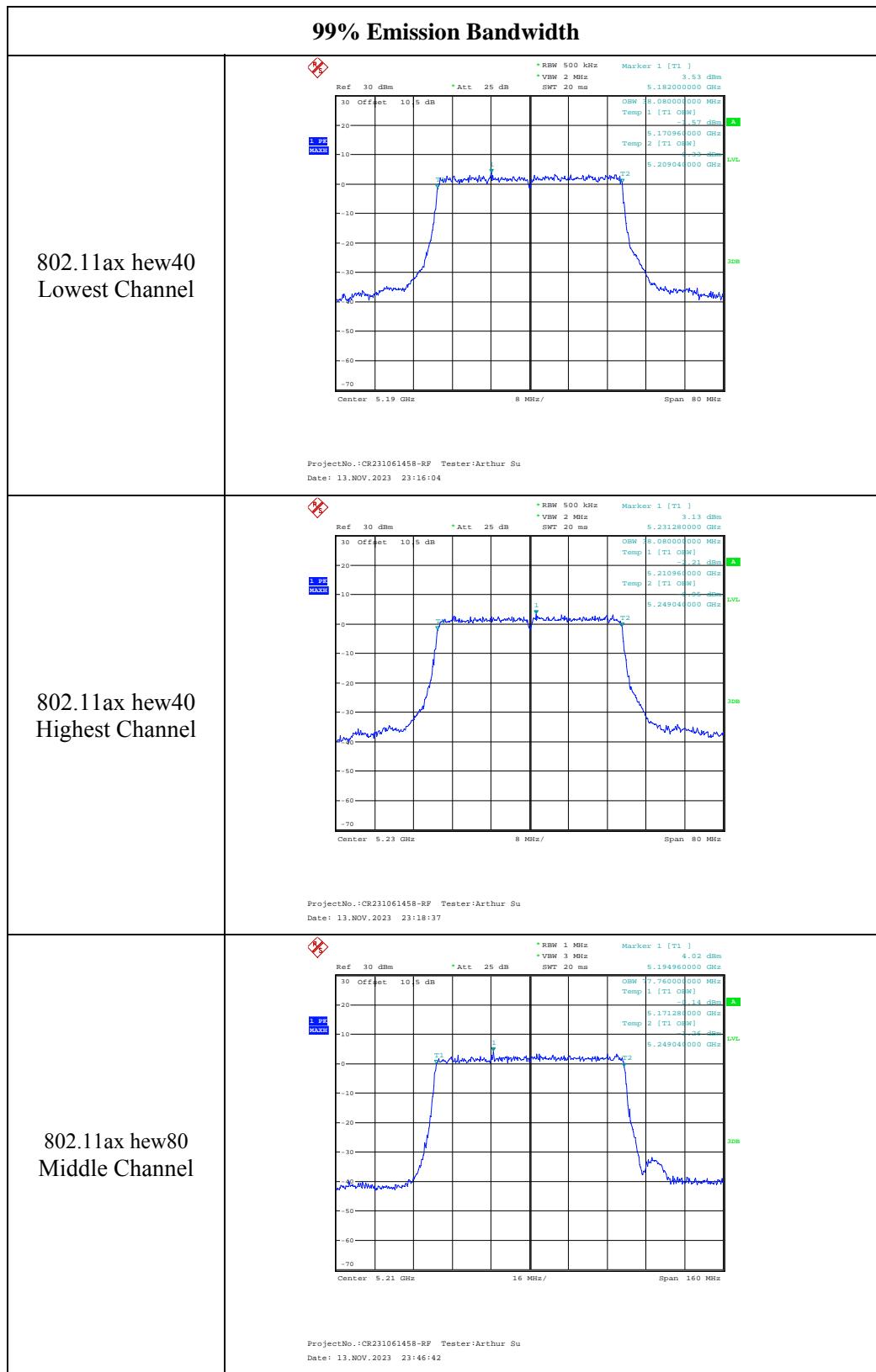


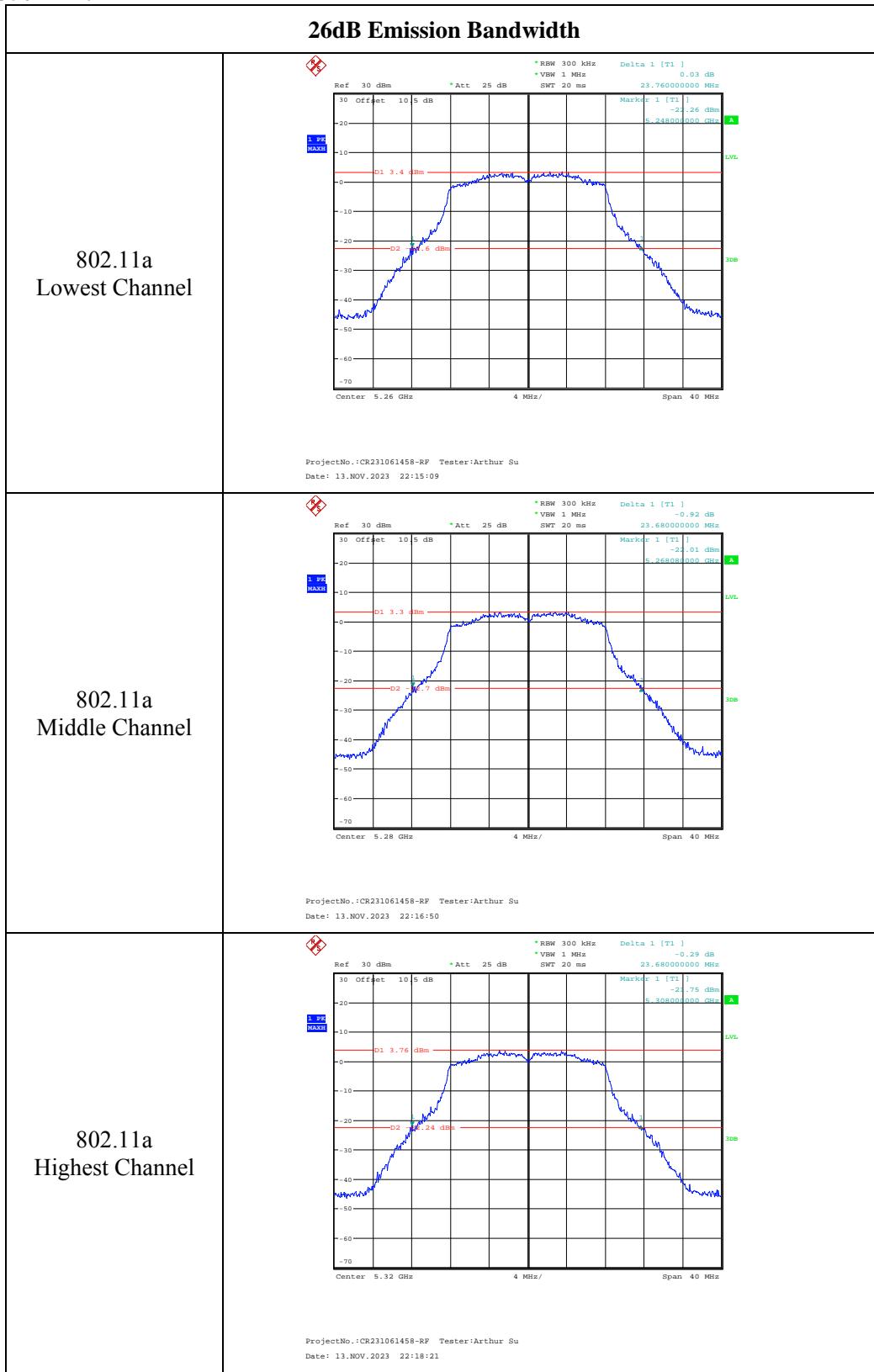


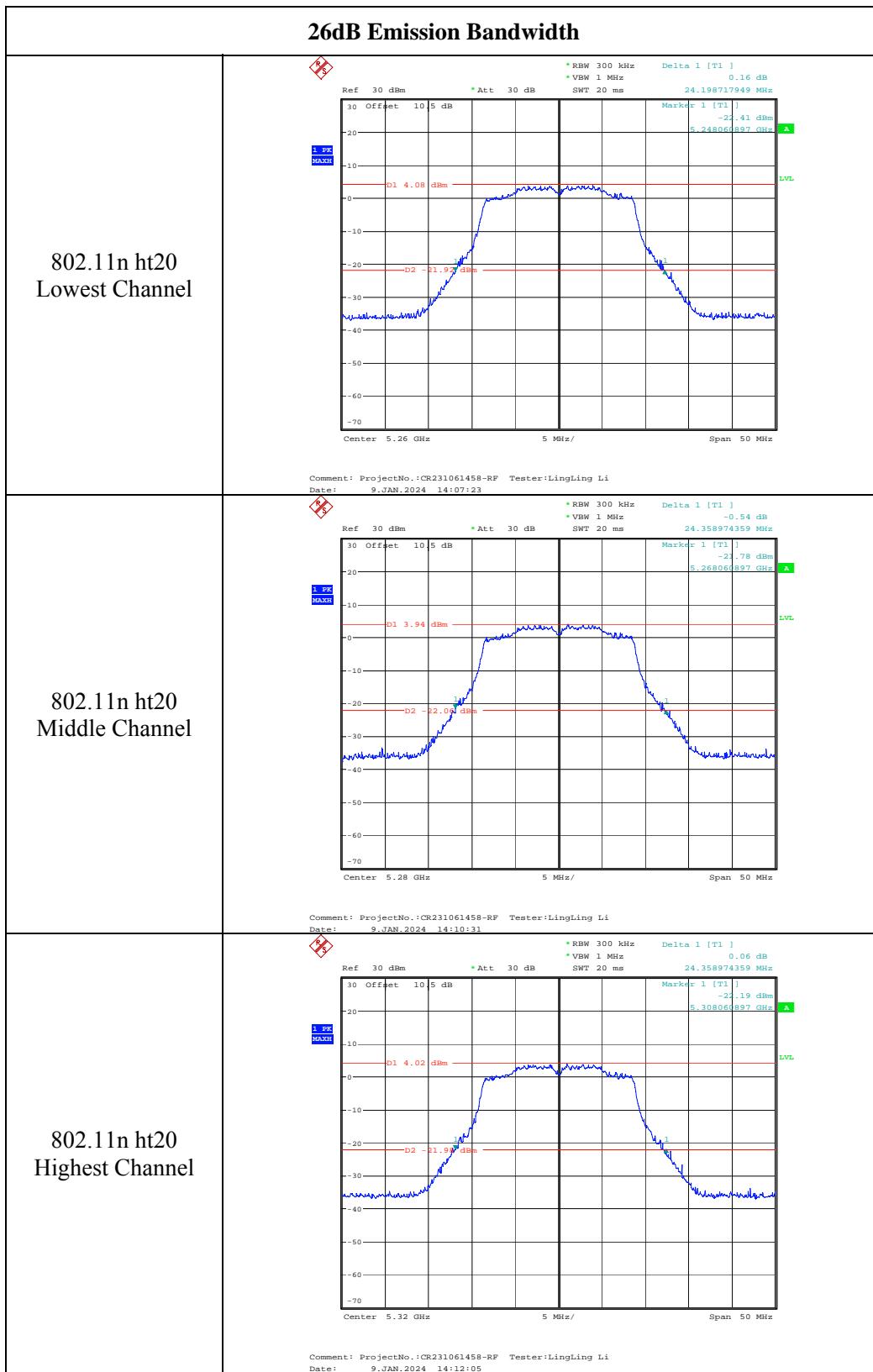


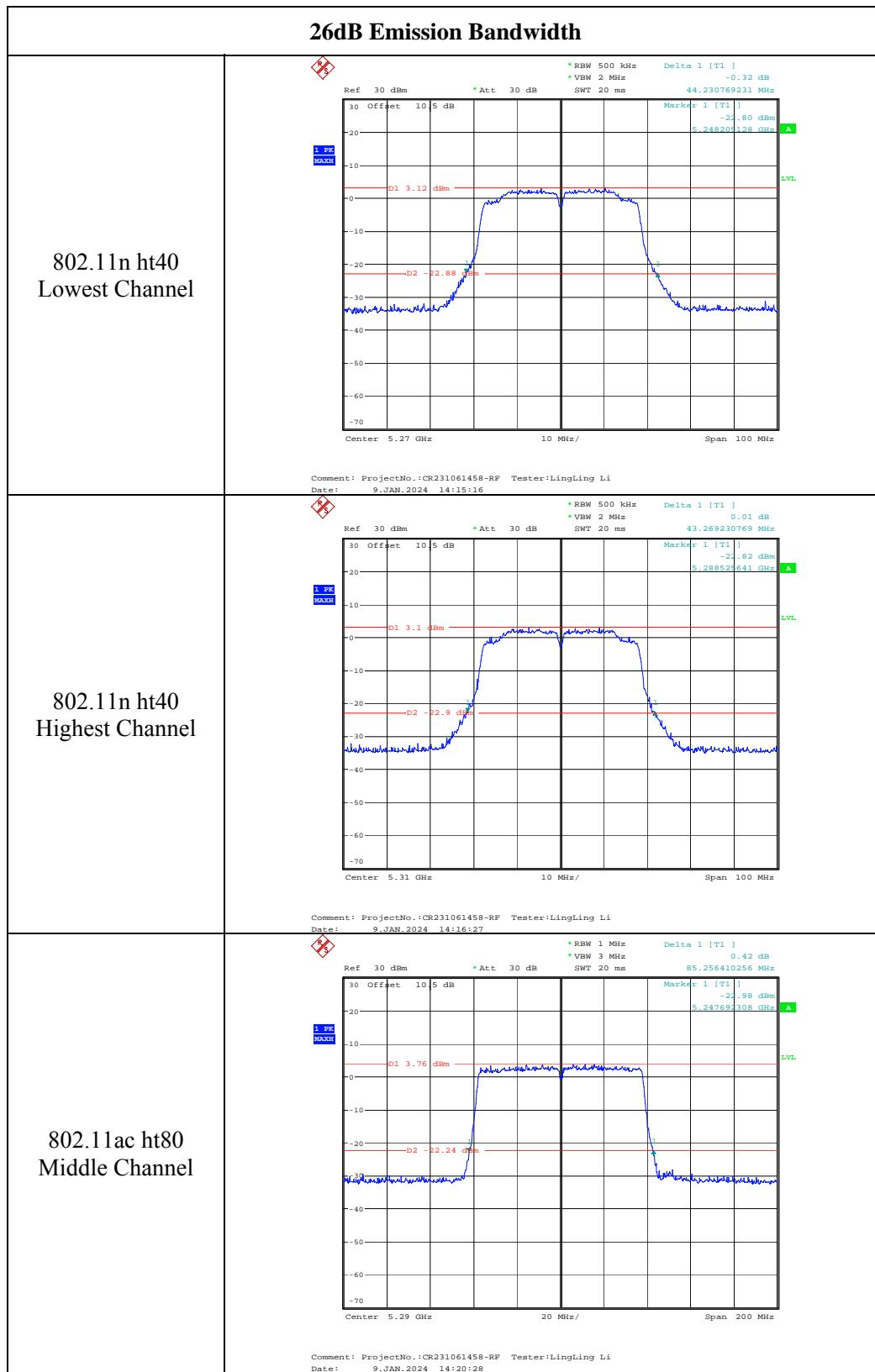


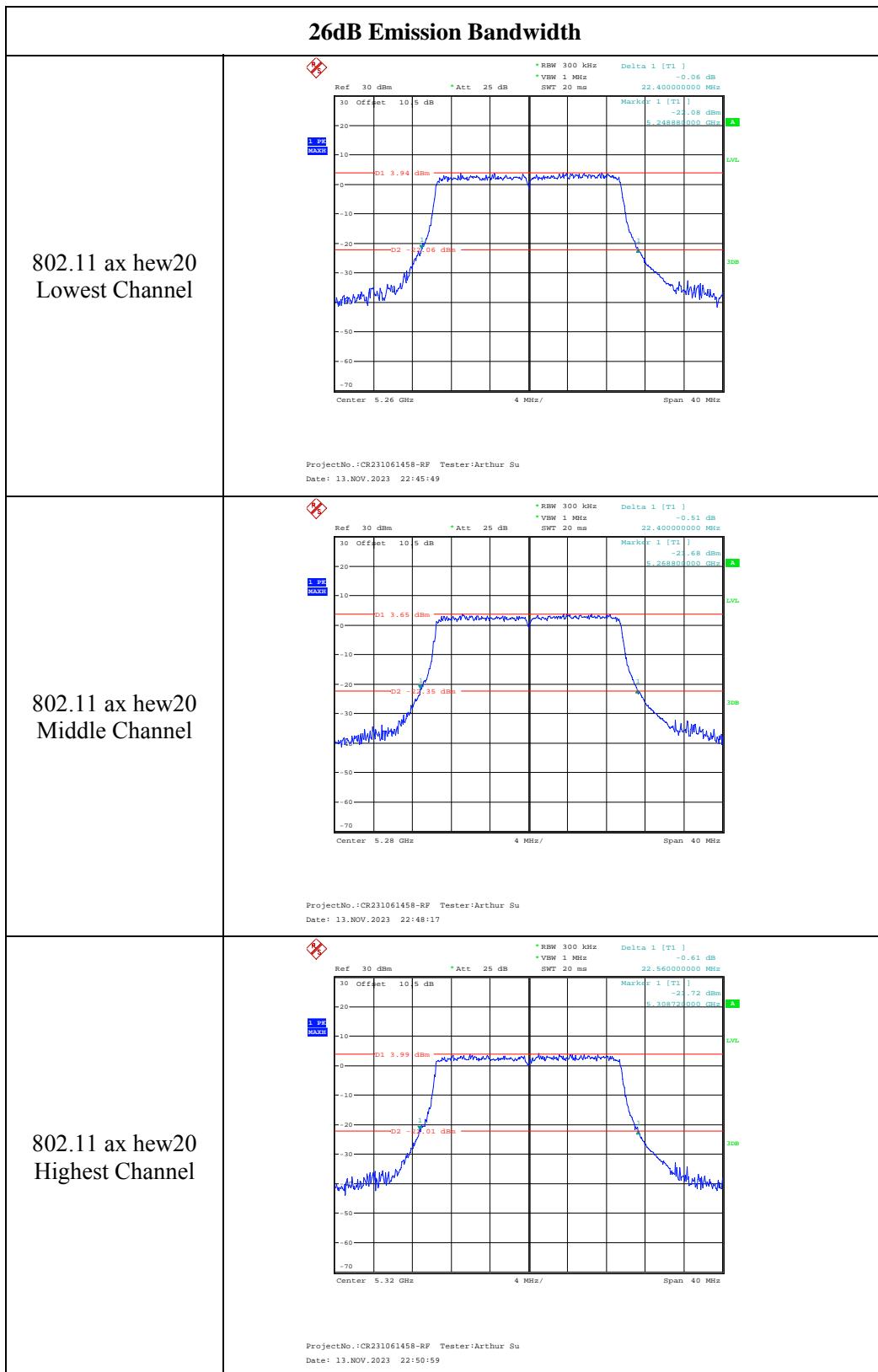


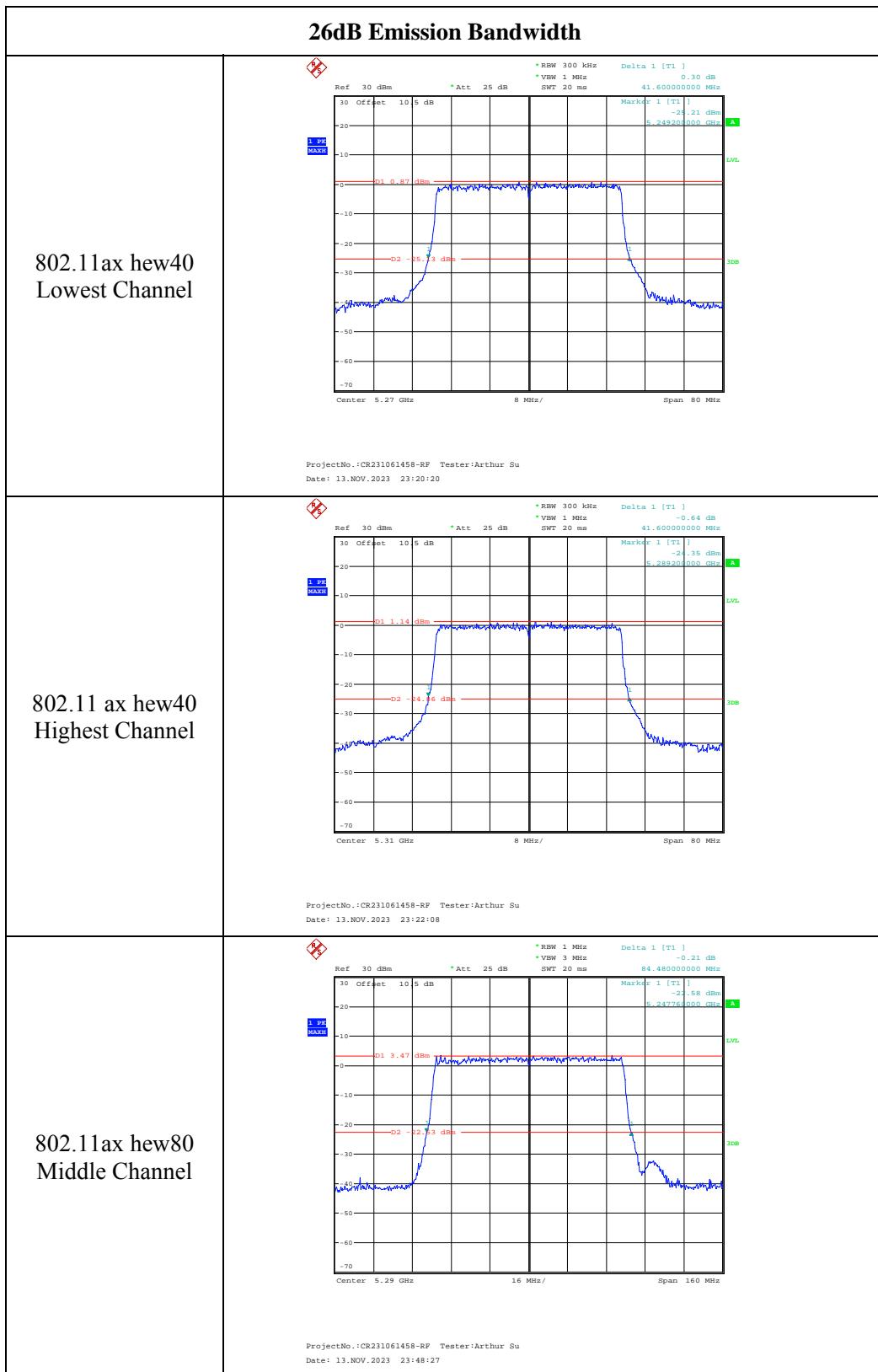


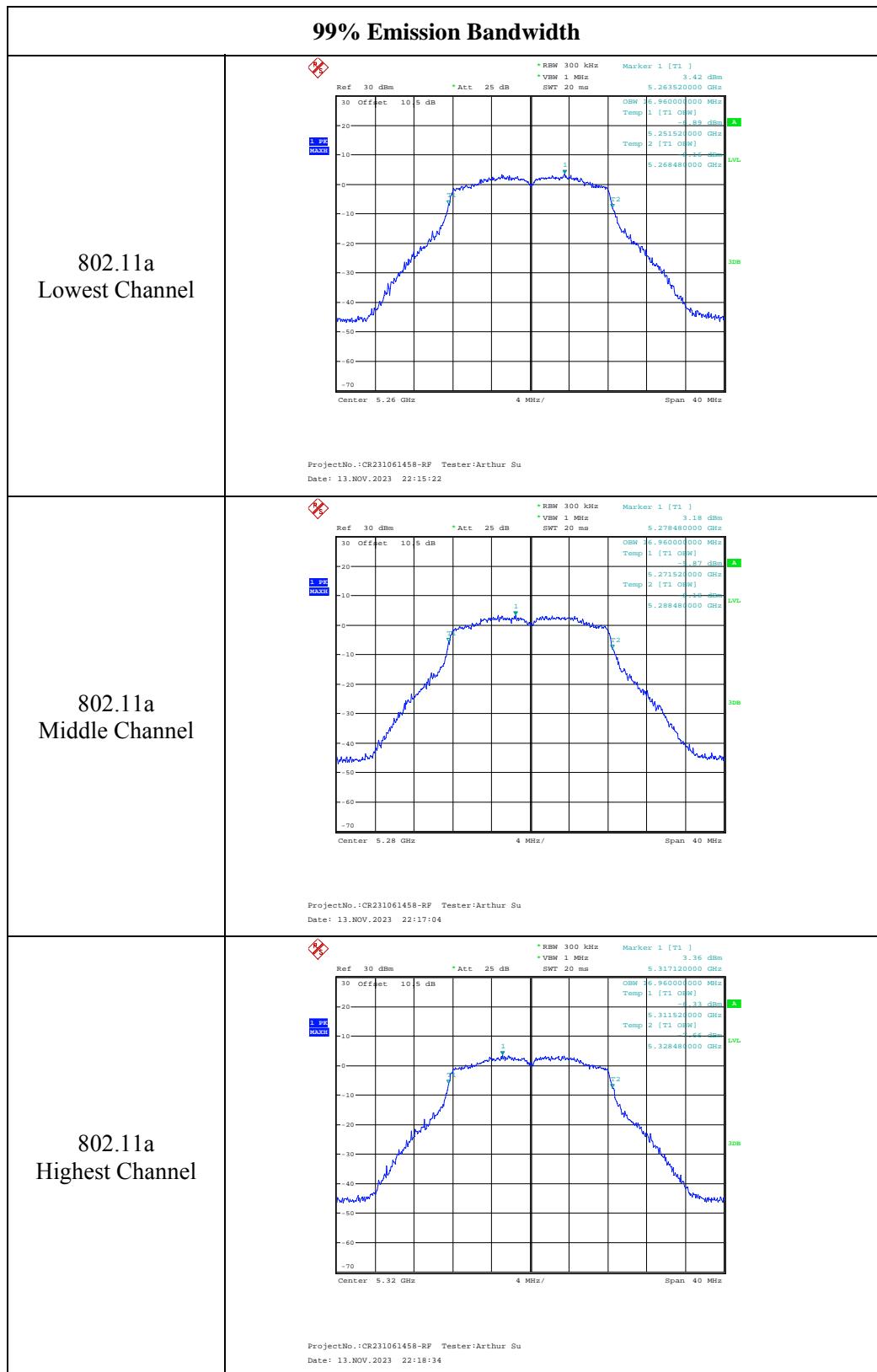
5250-5350MHz:

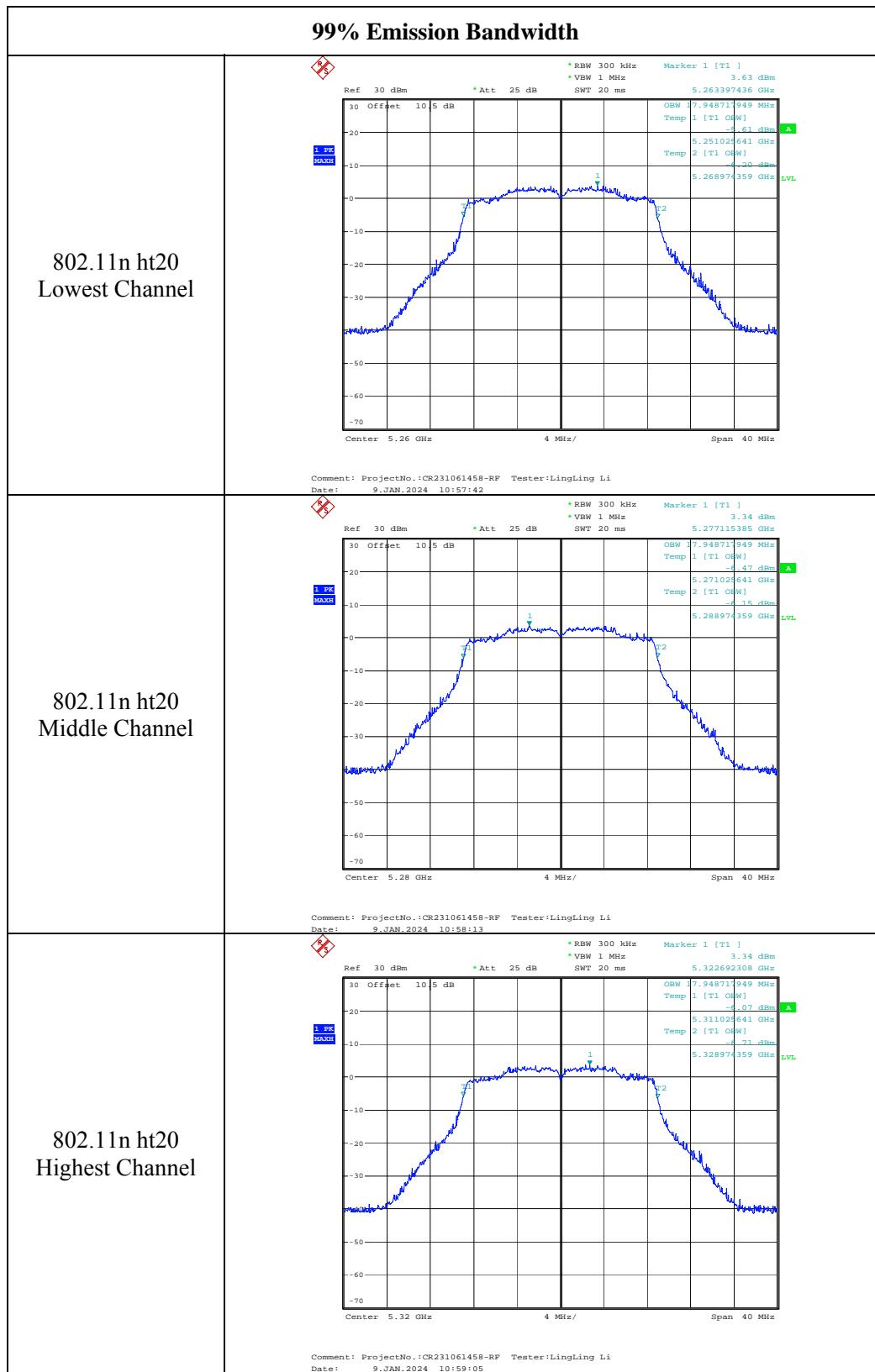


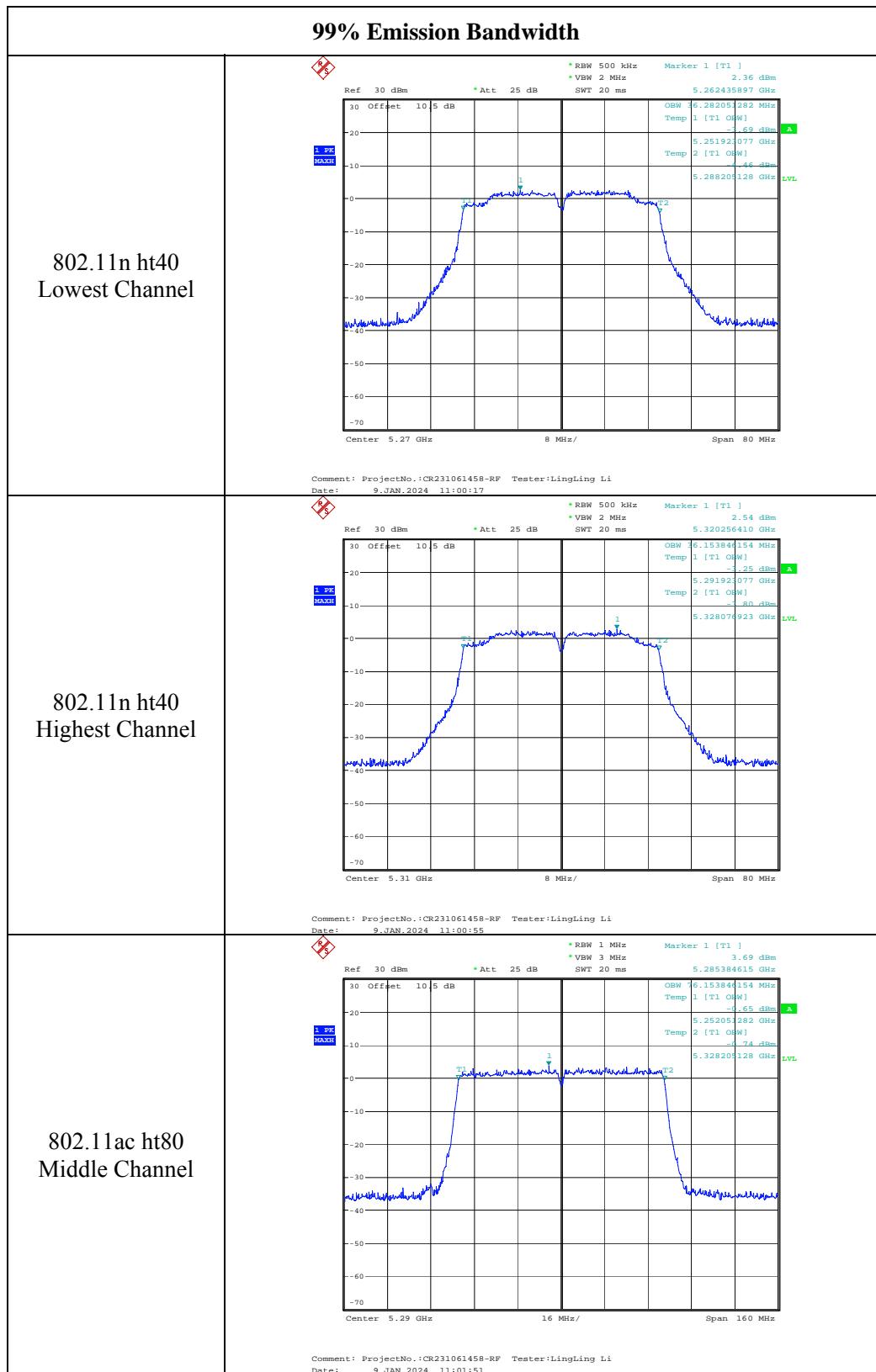


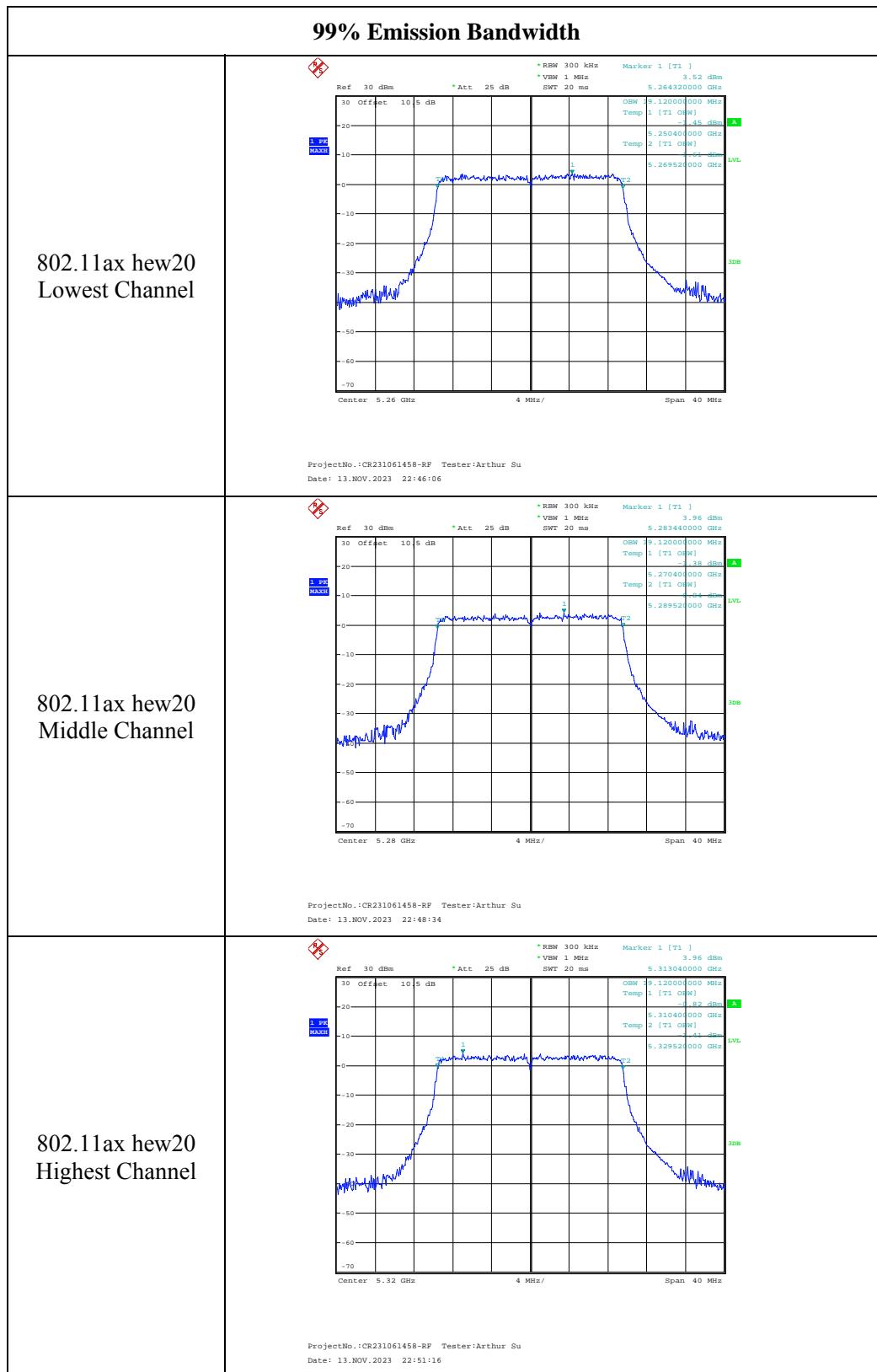


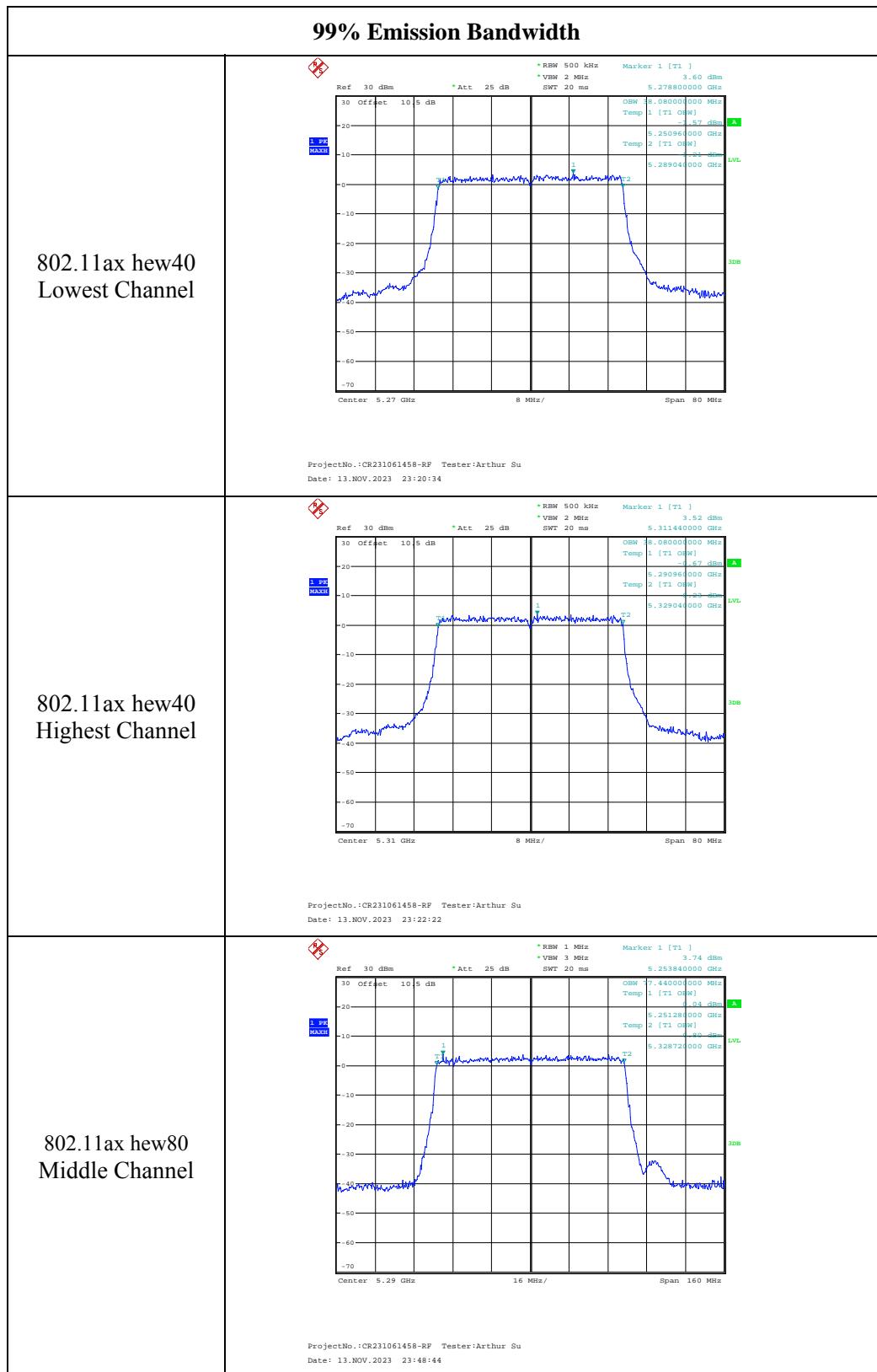


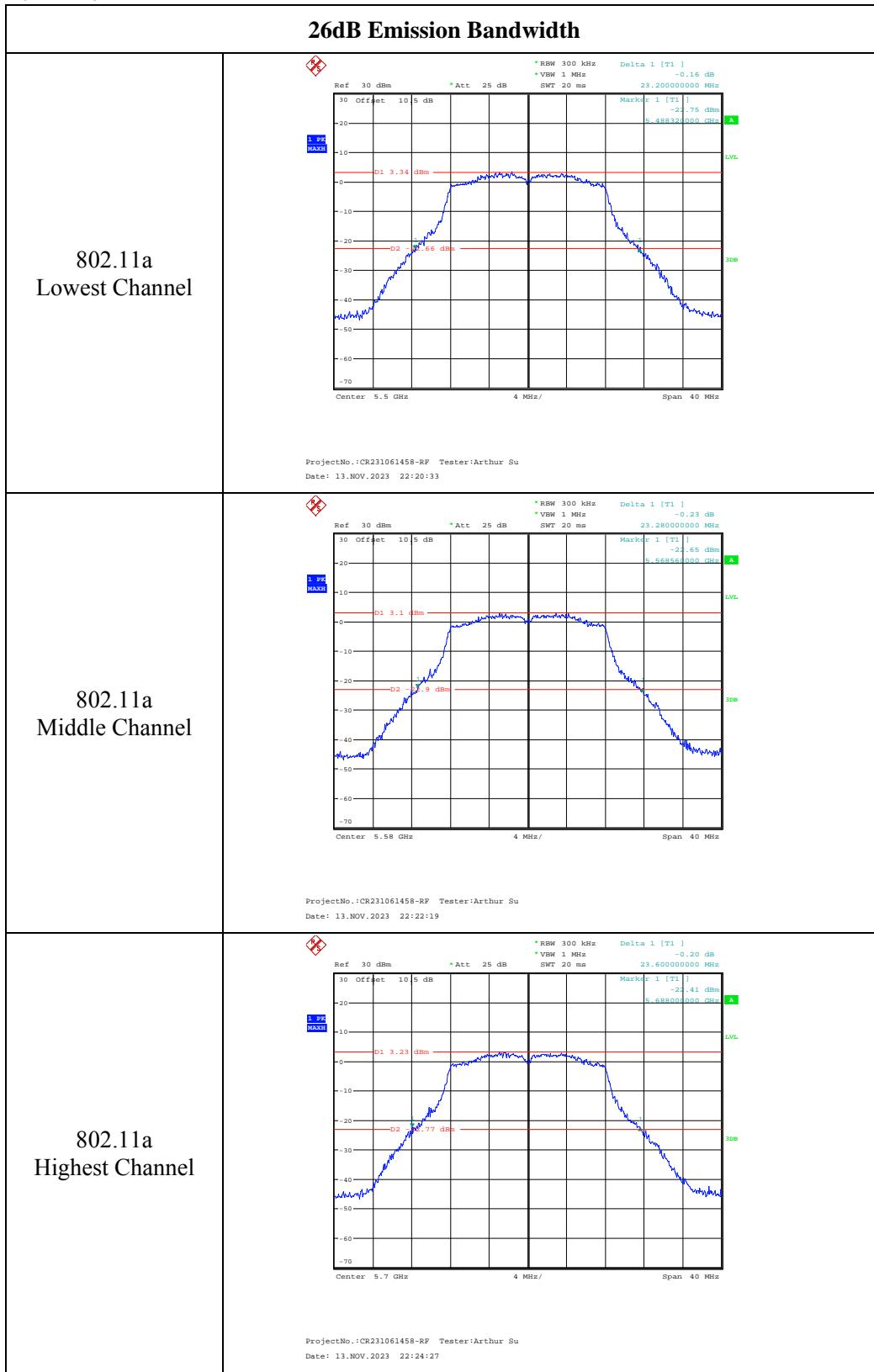




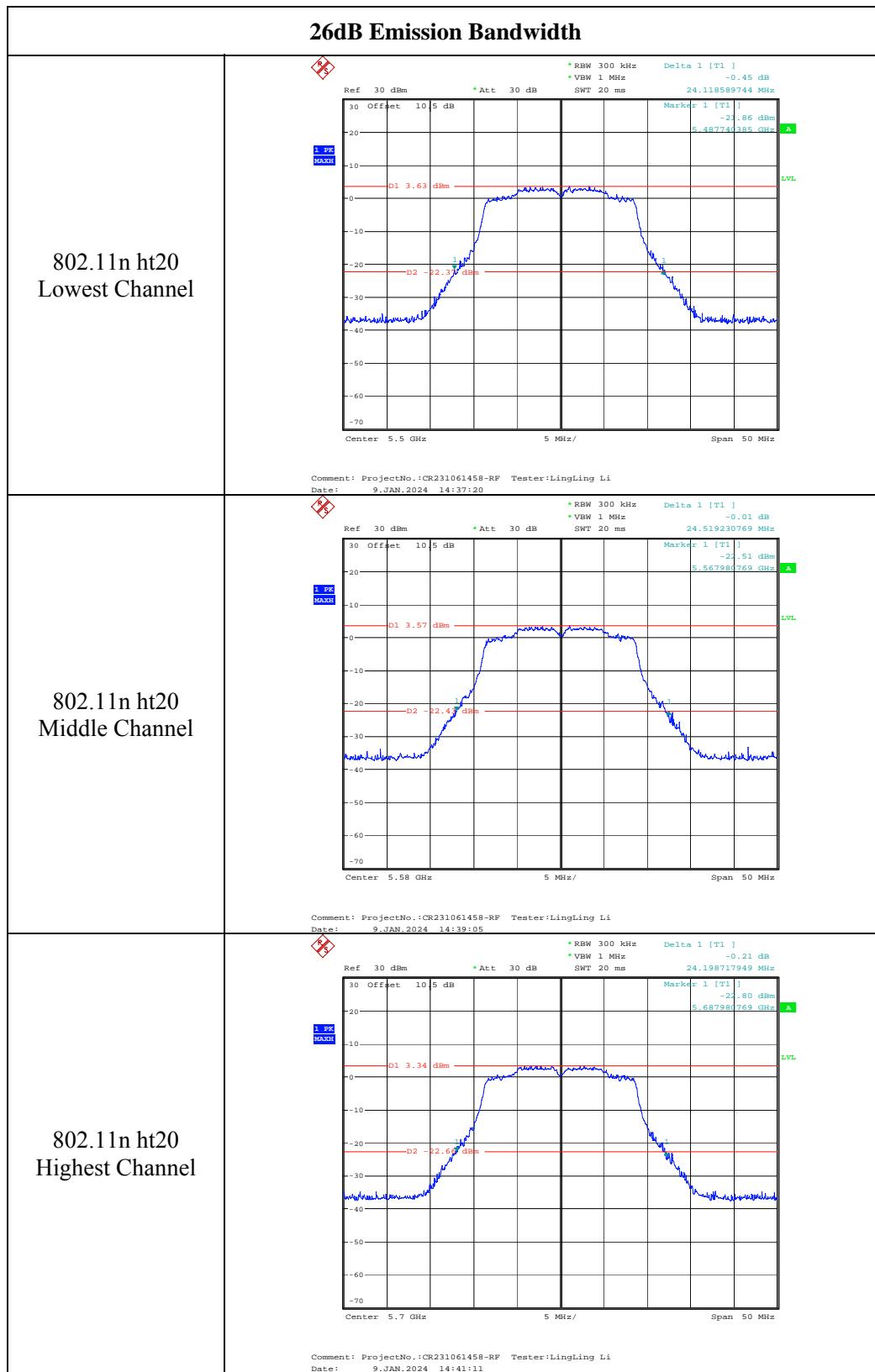


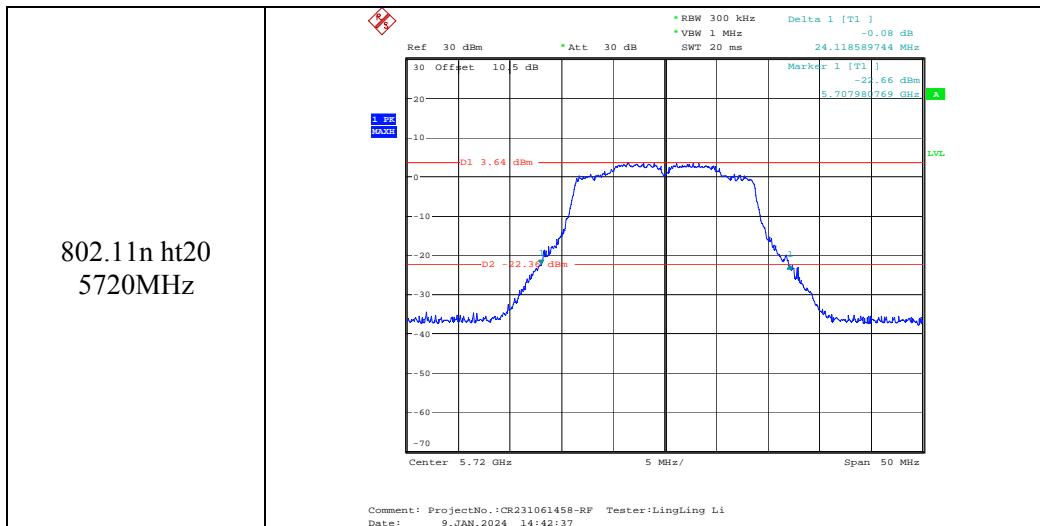


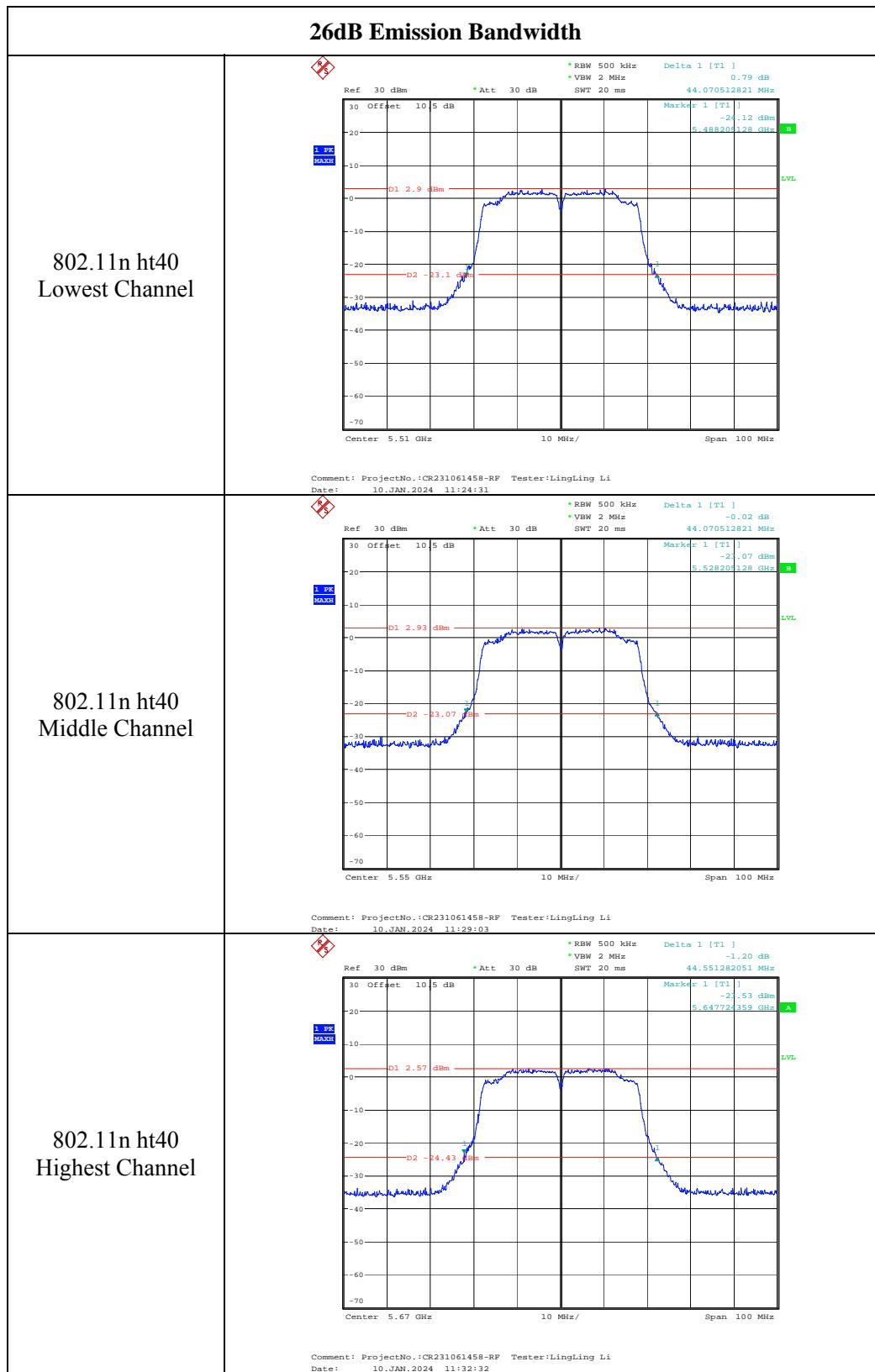


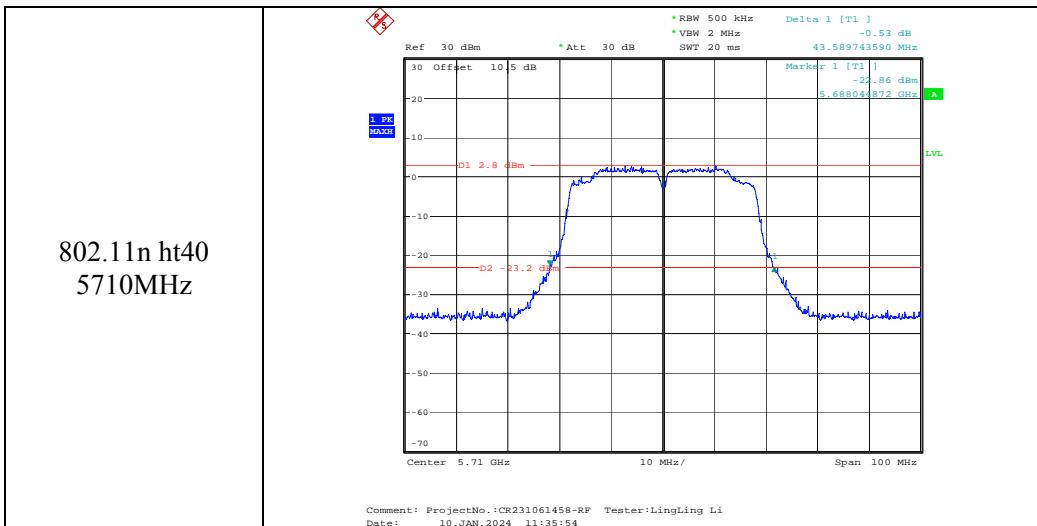
5470-5725 MHz:

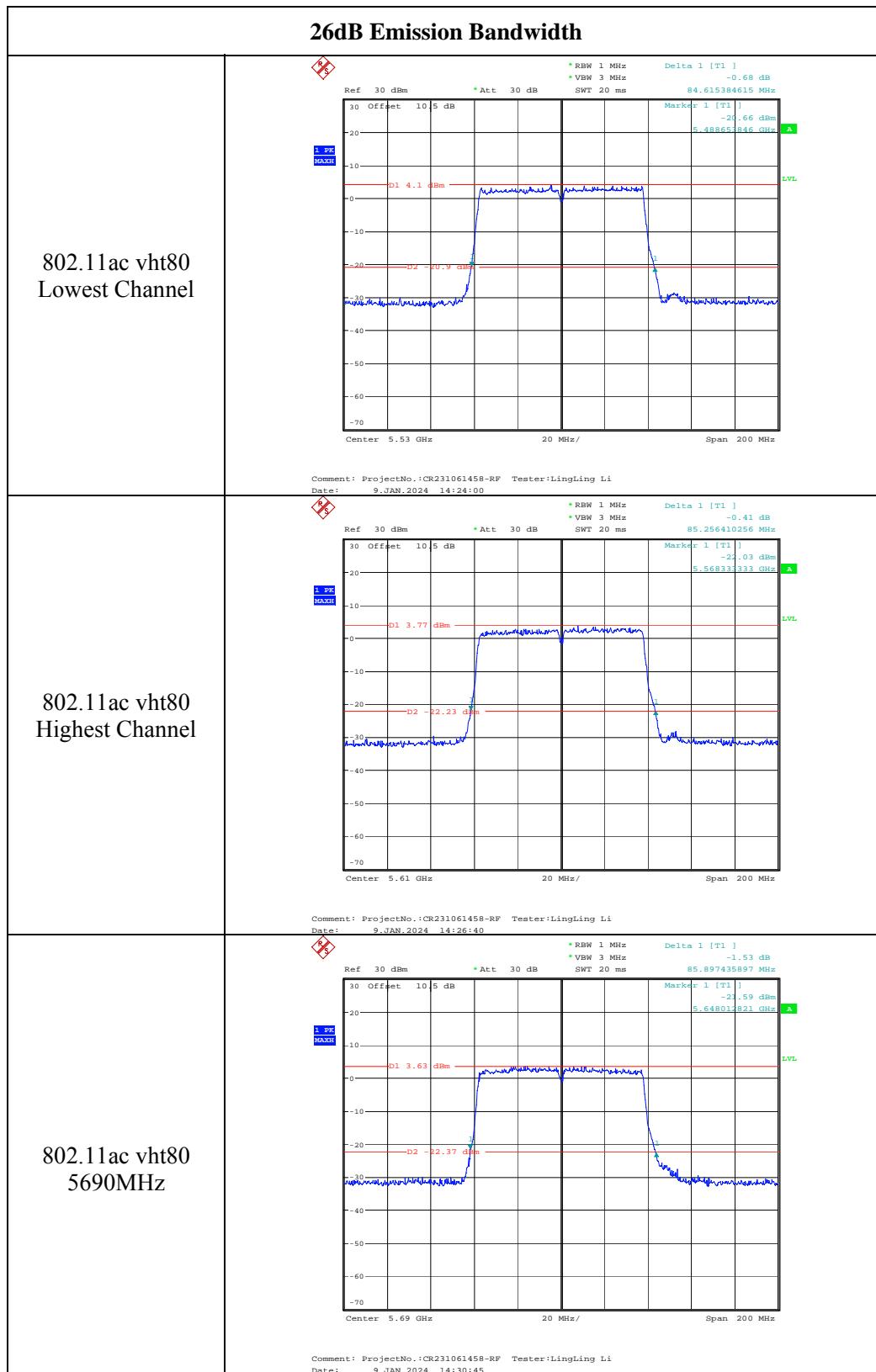


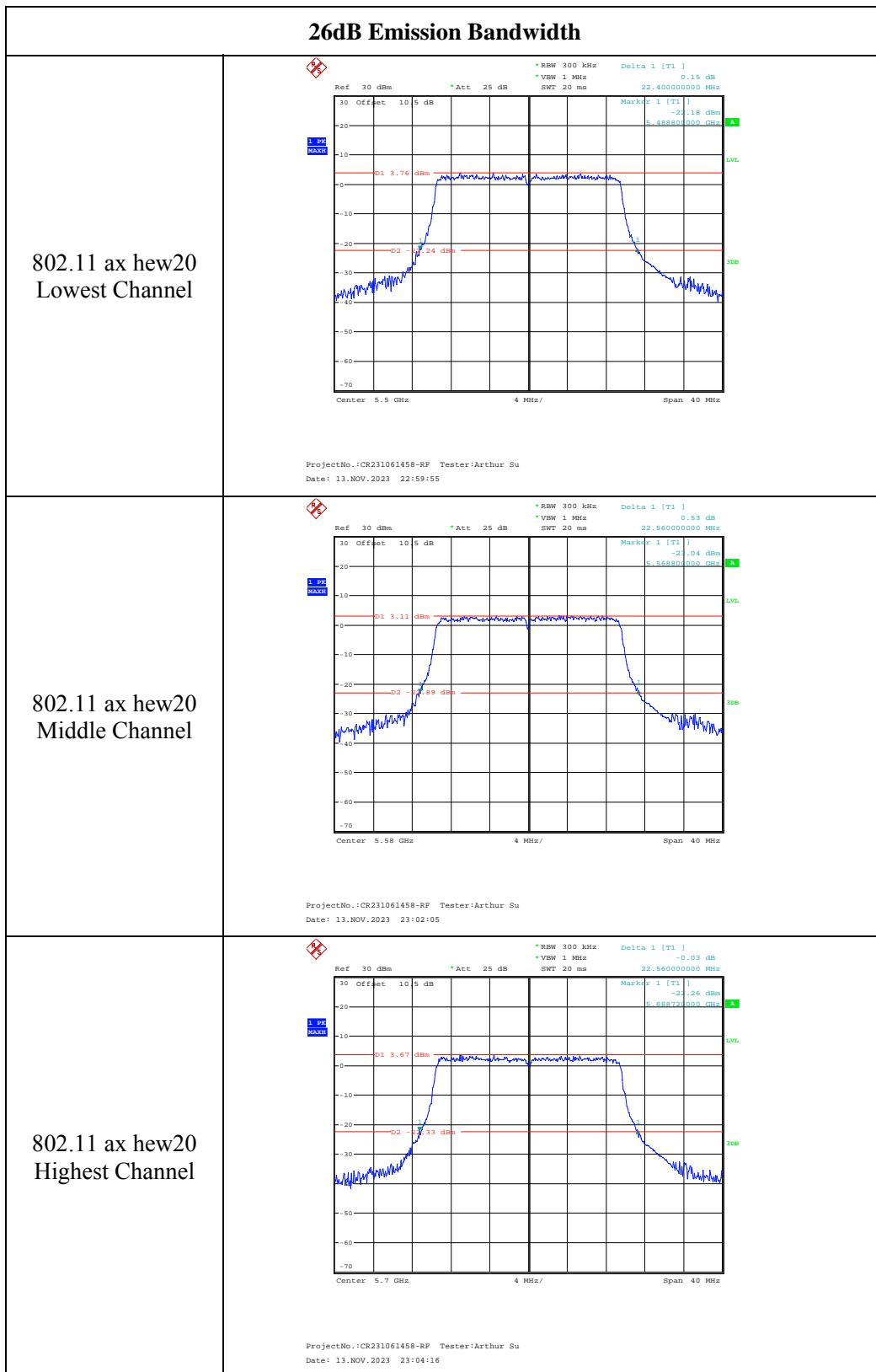




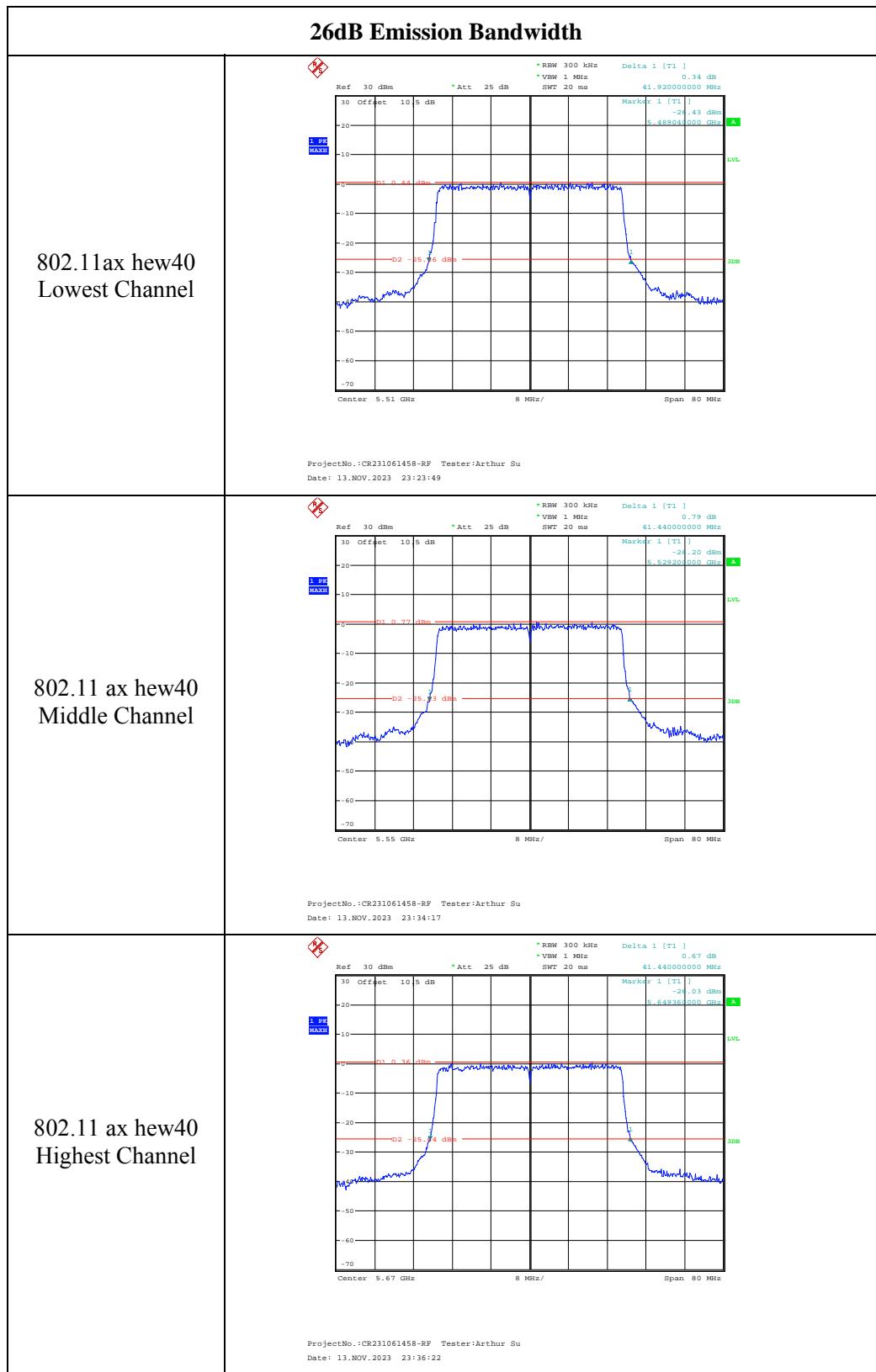




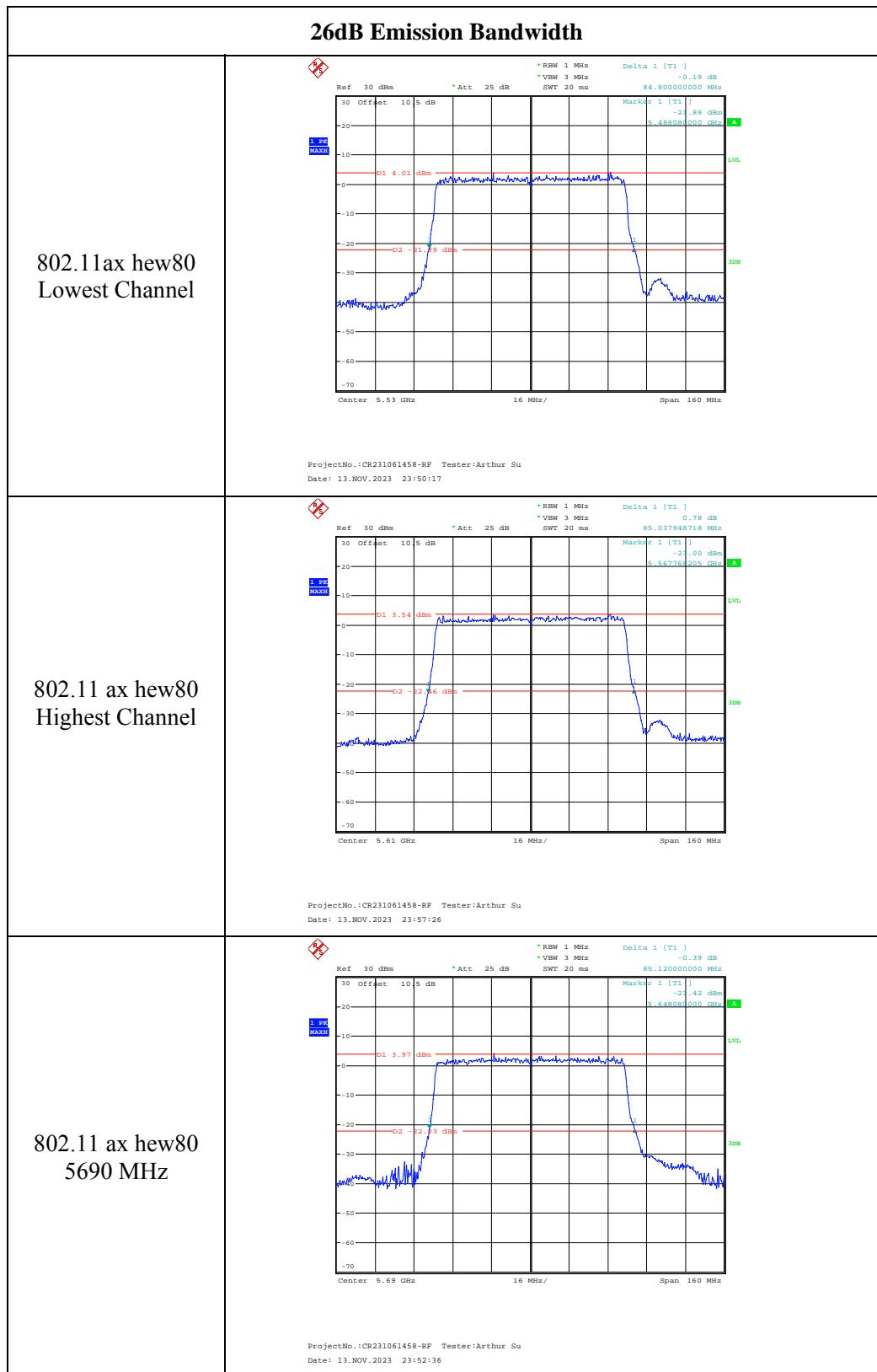


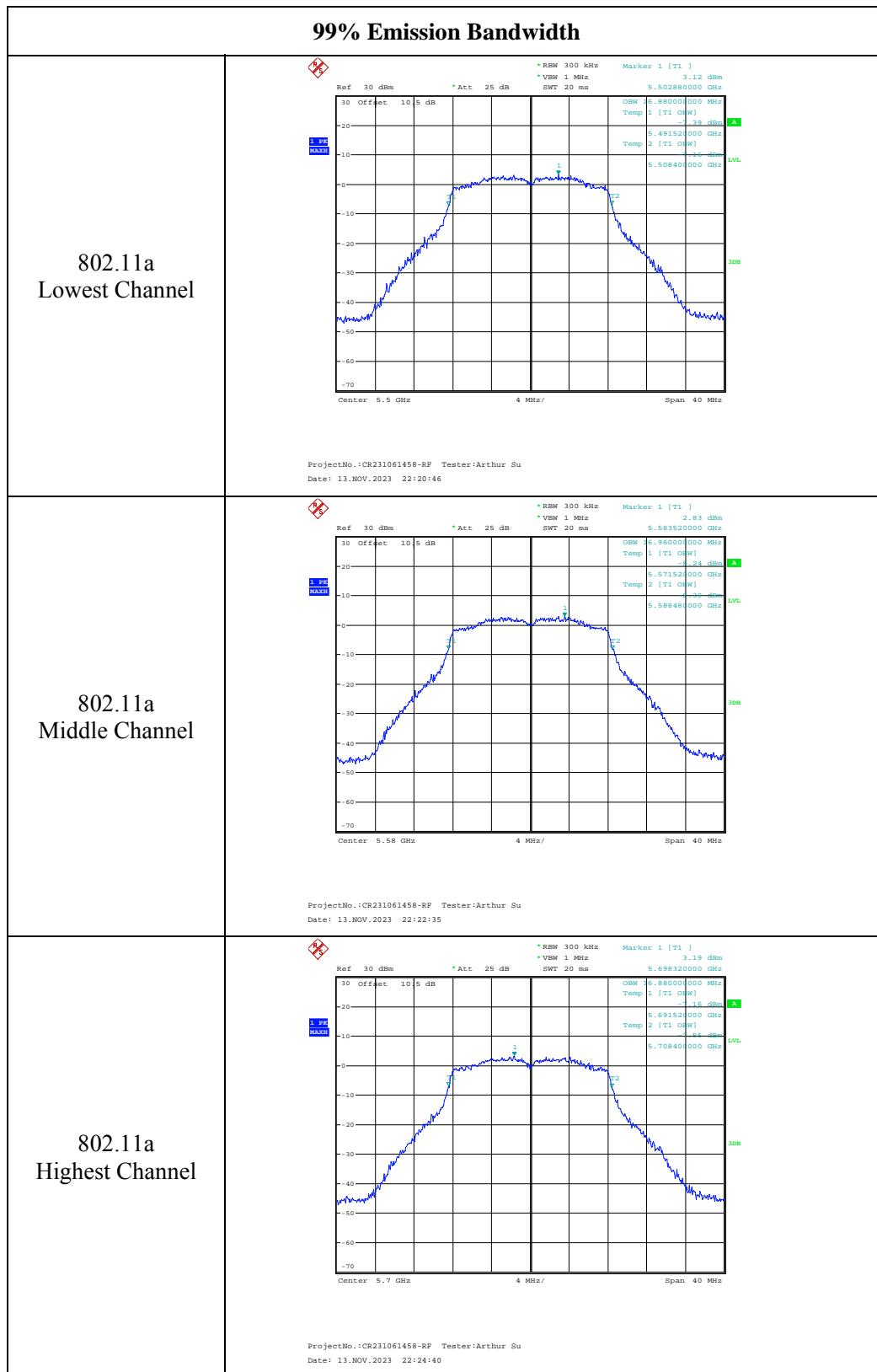




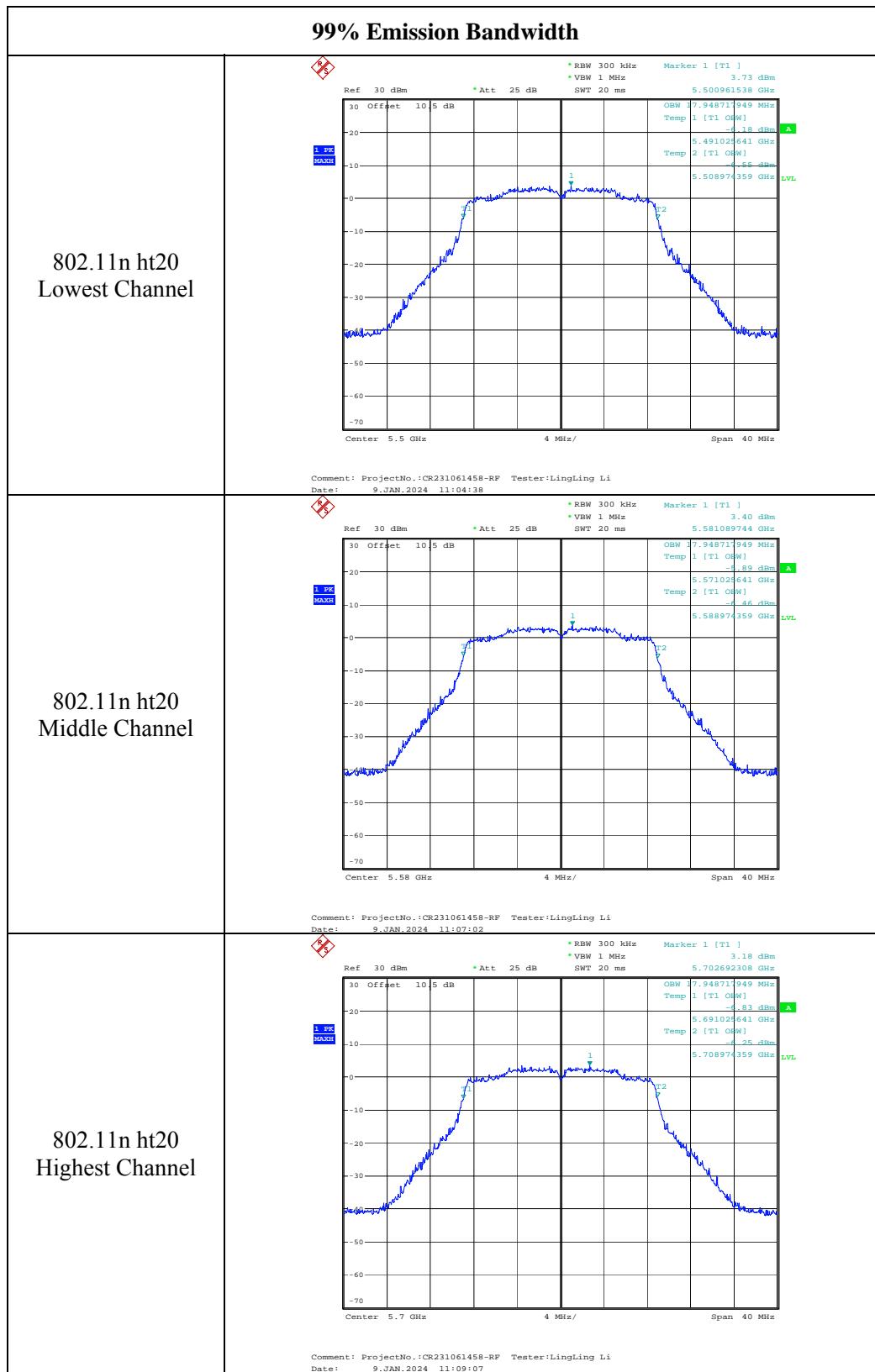


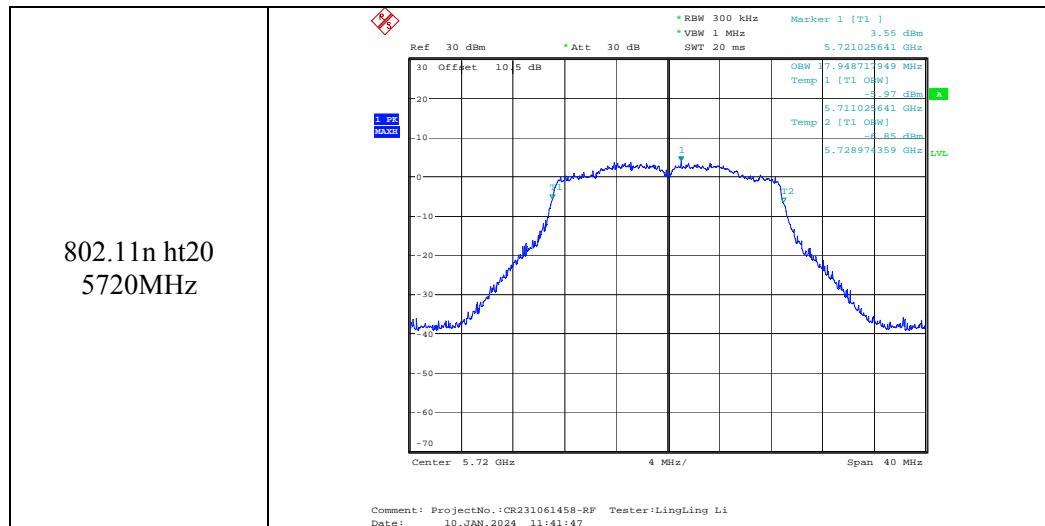


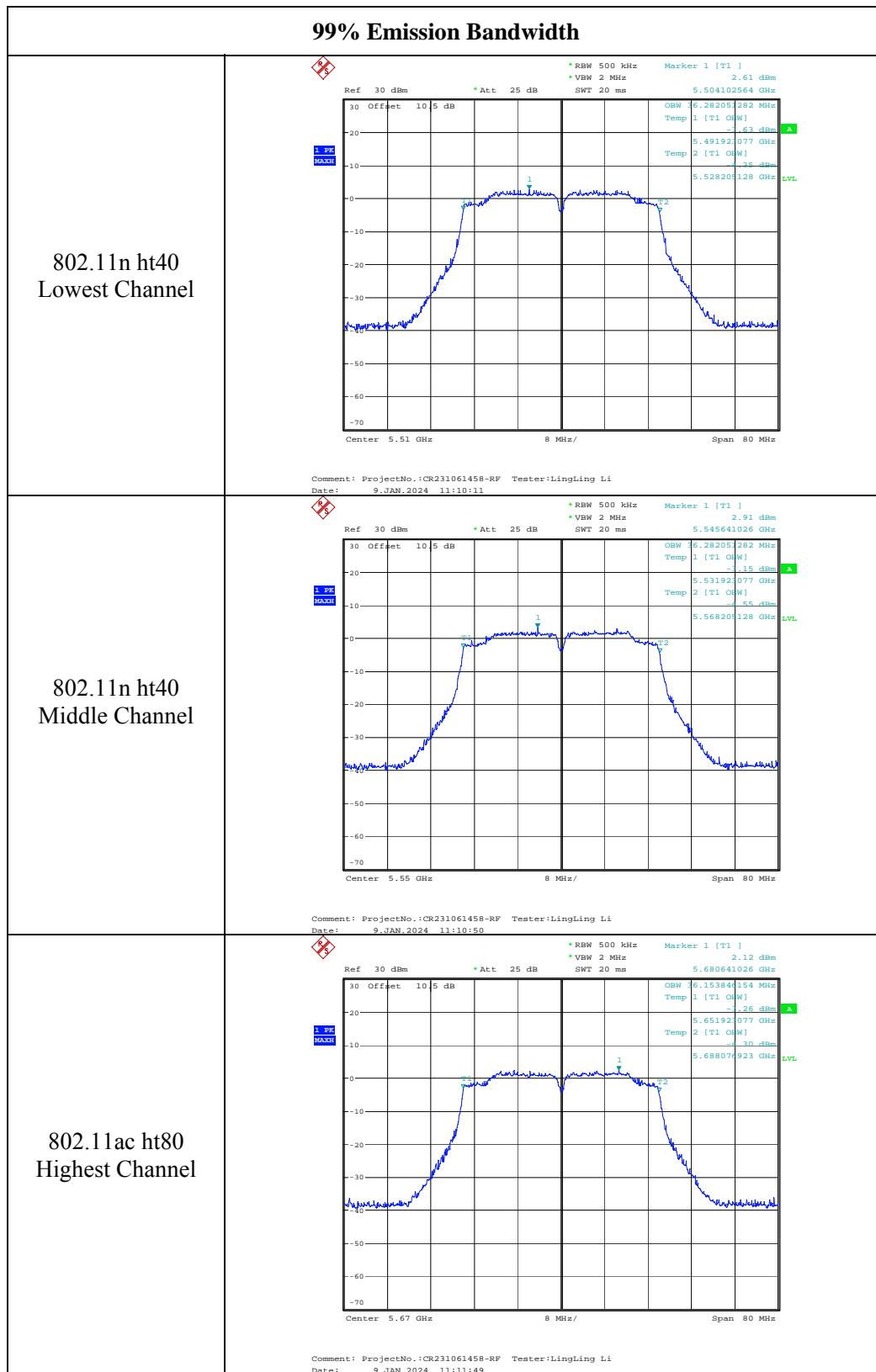


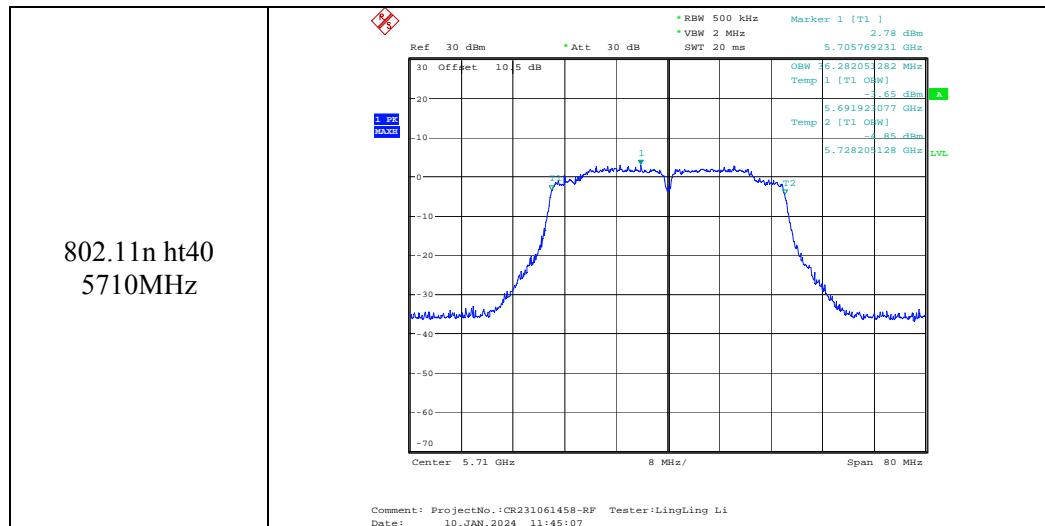


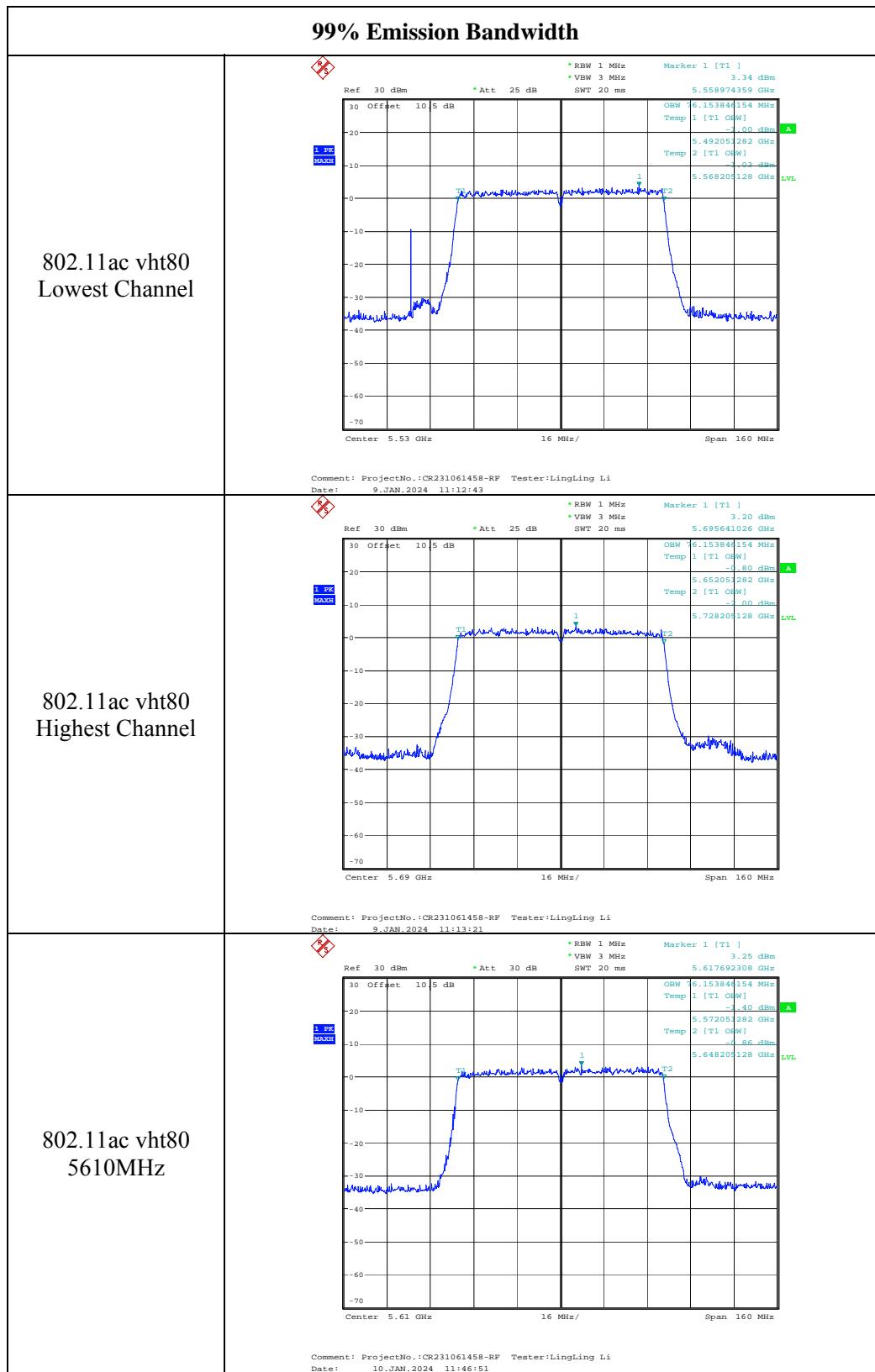


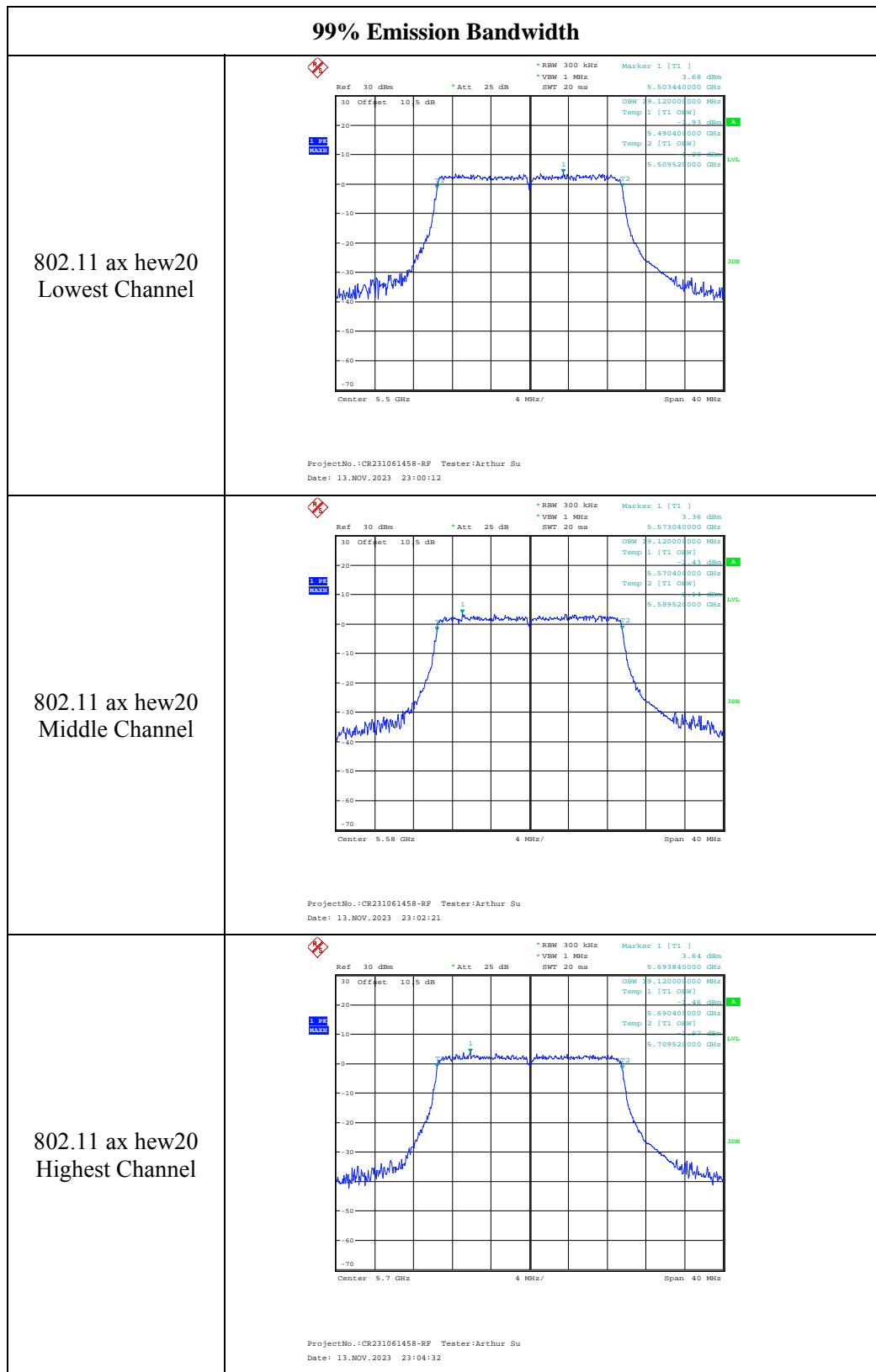




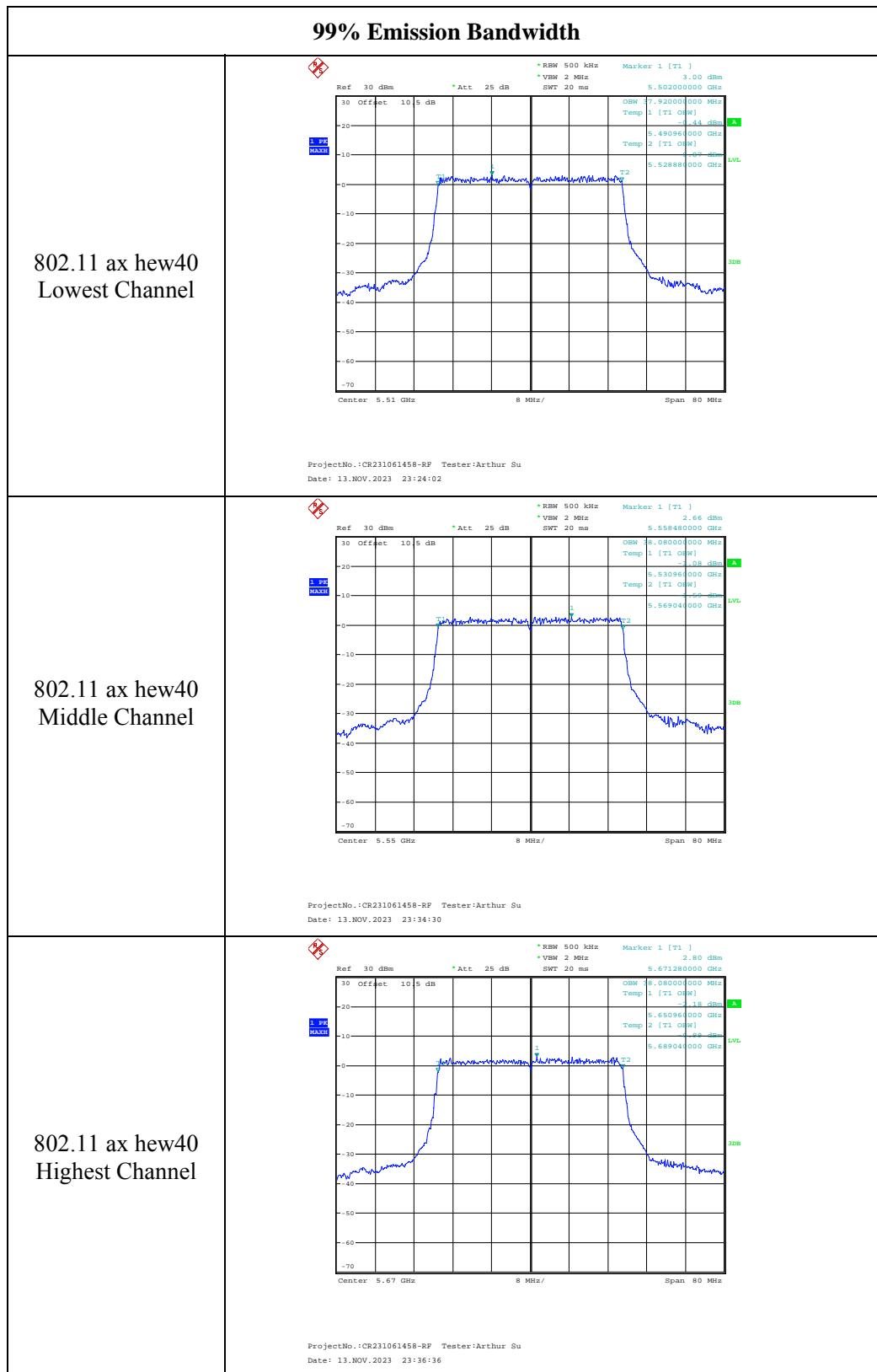




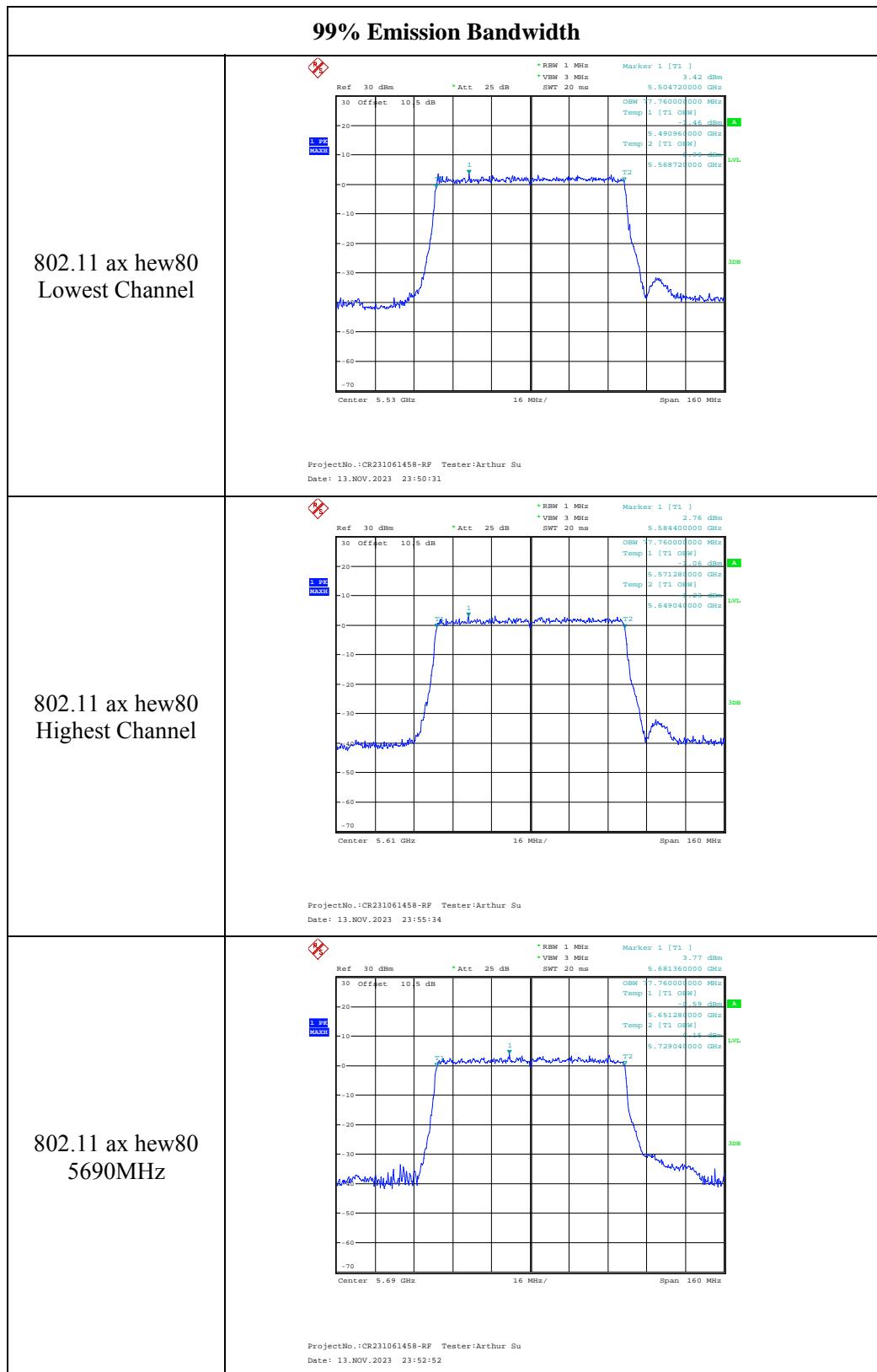


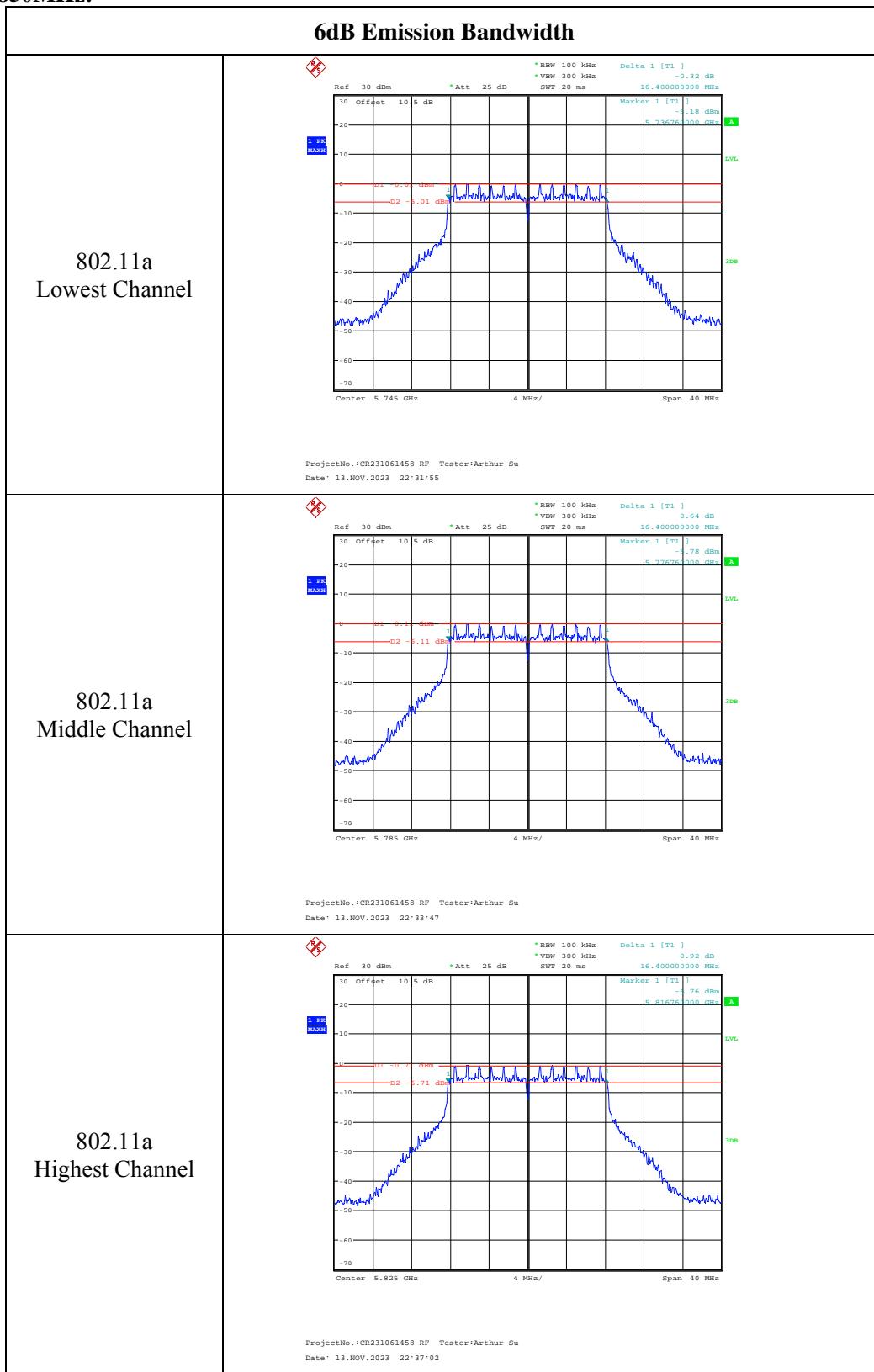


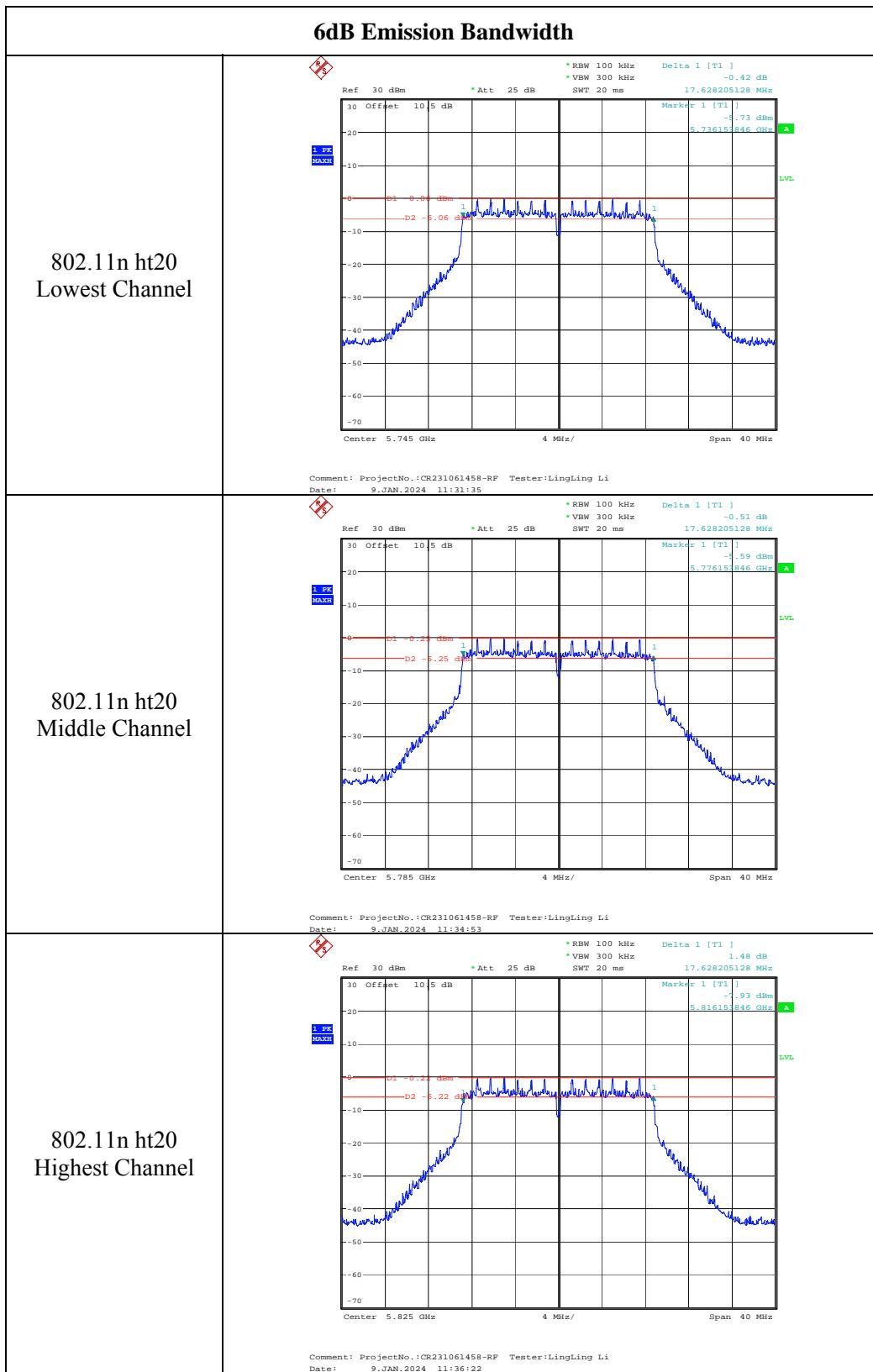


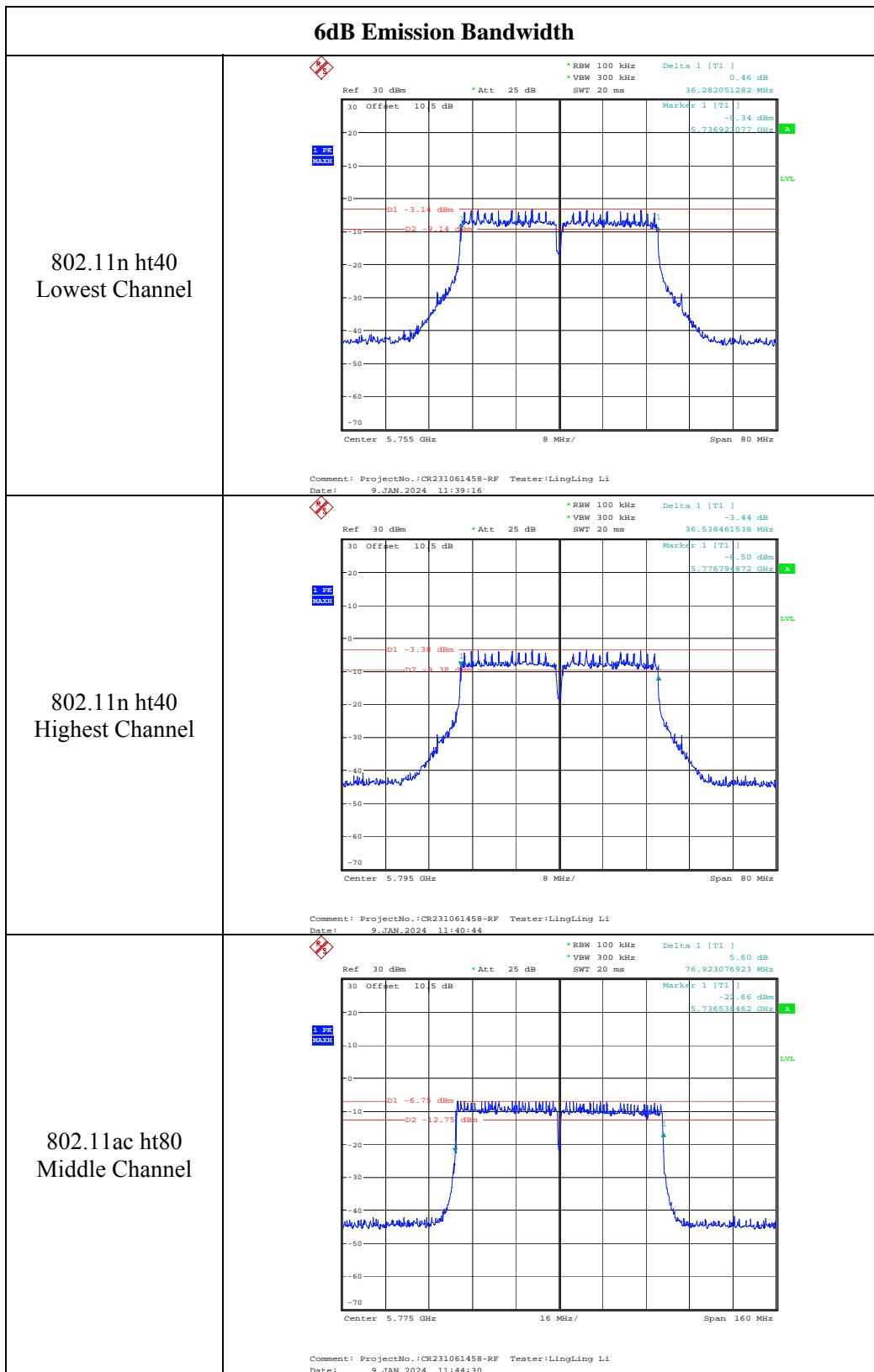


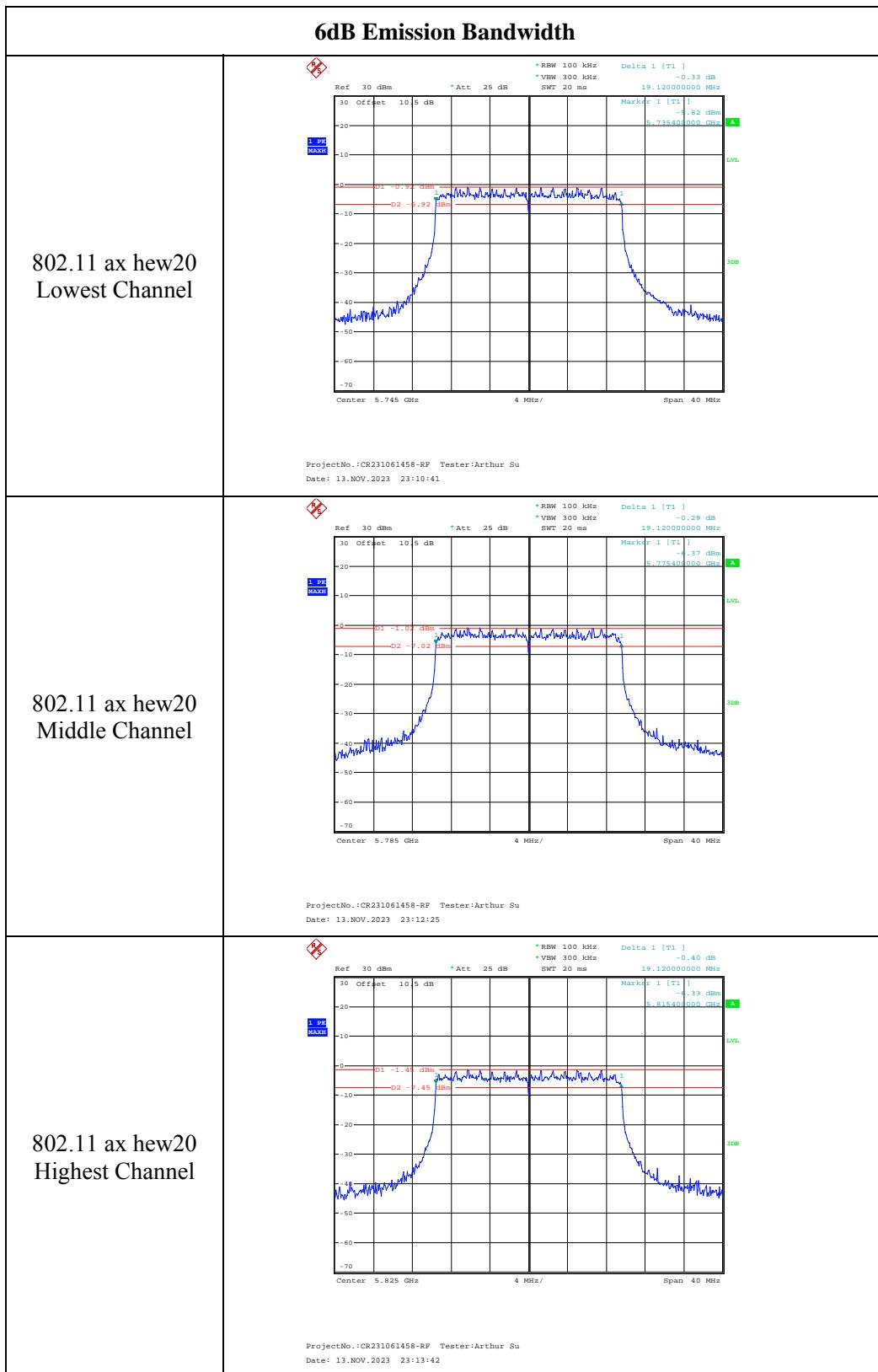


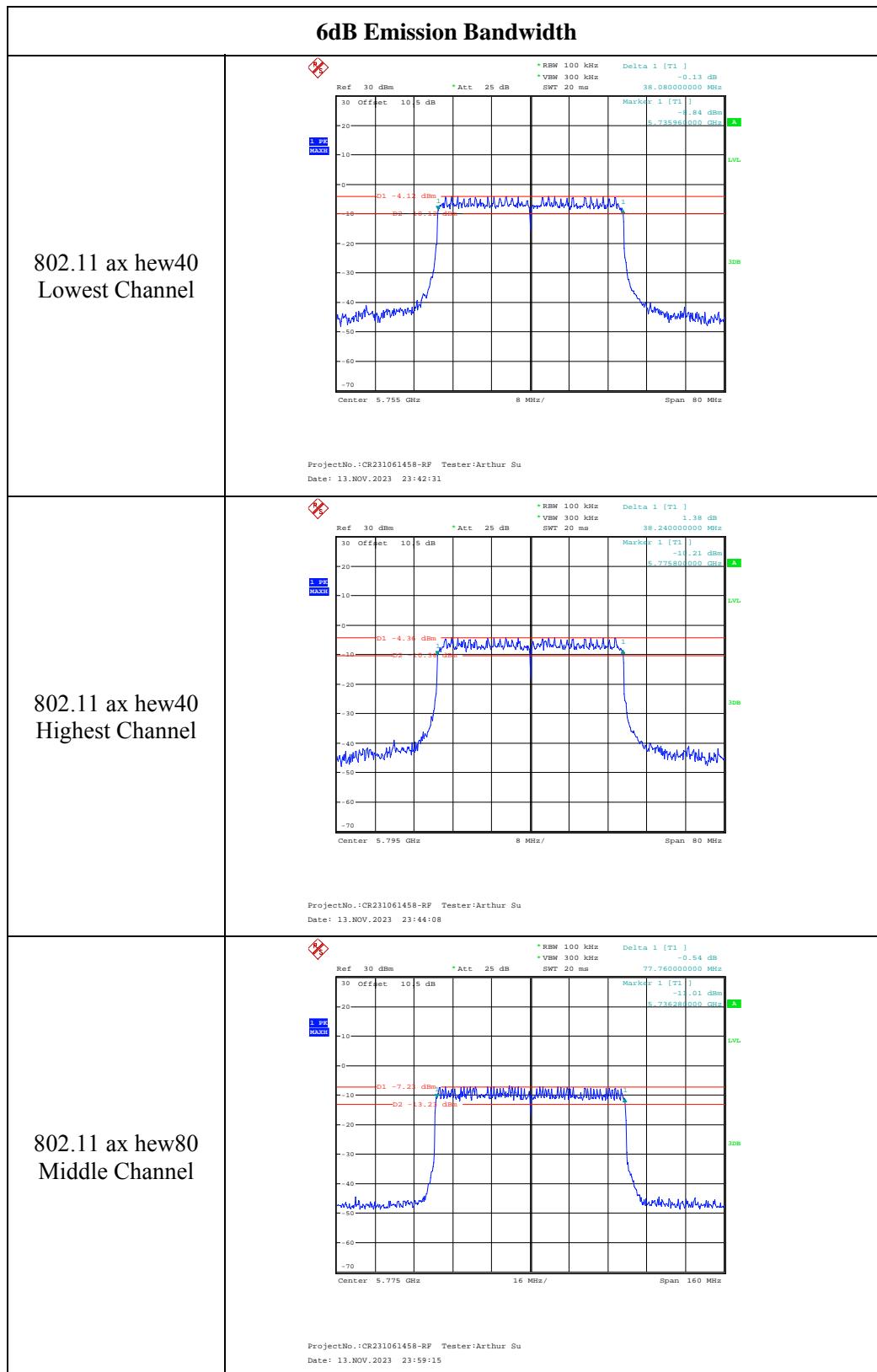


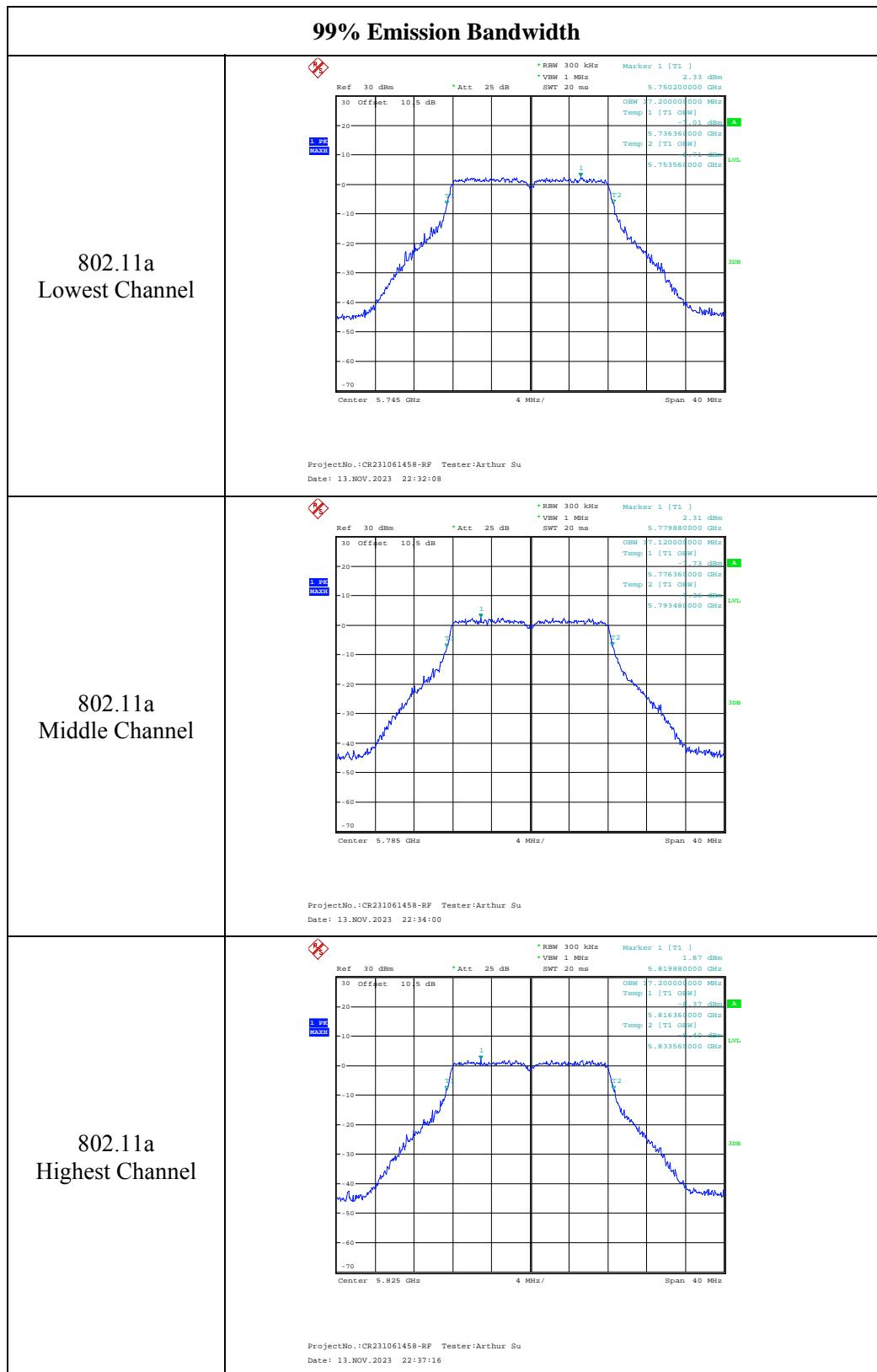
5725-5850MHz:

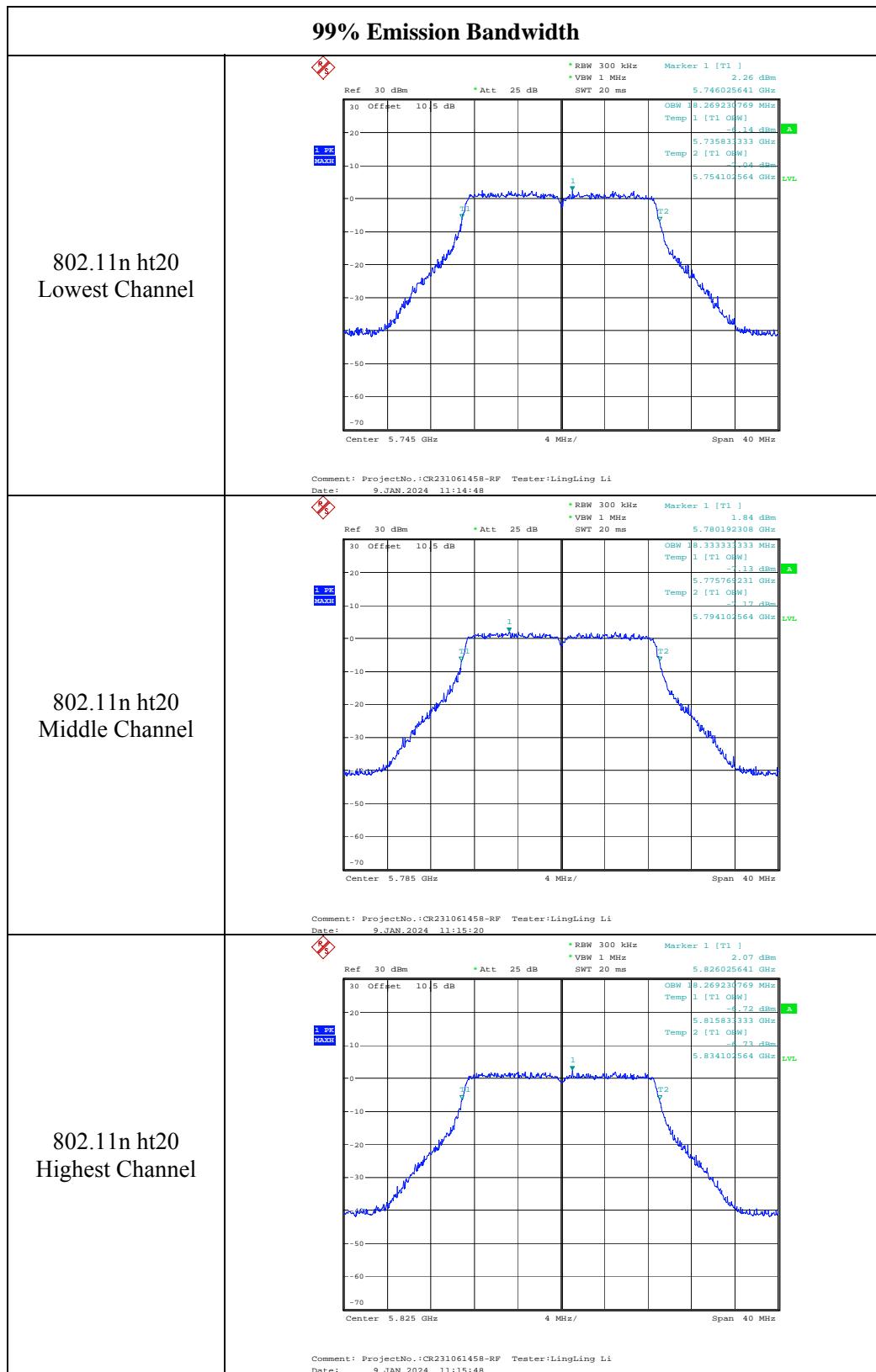


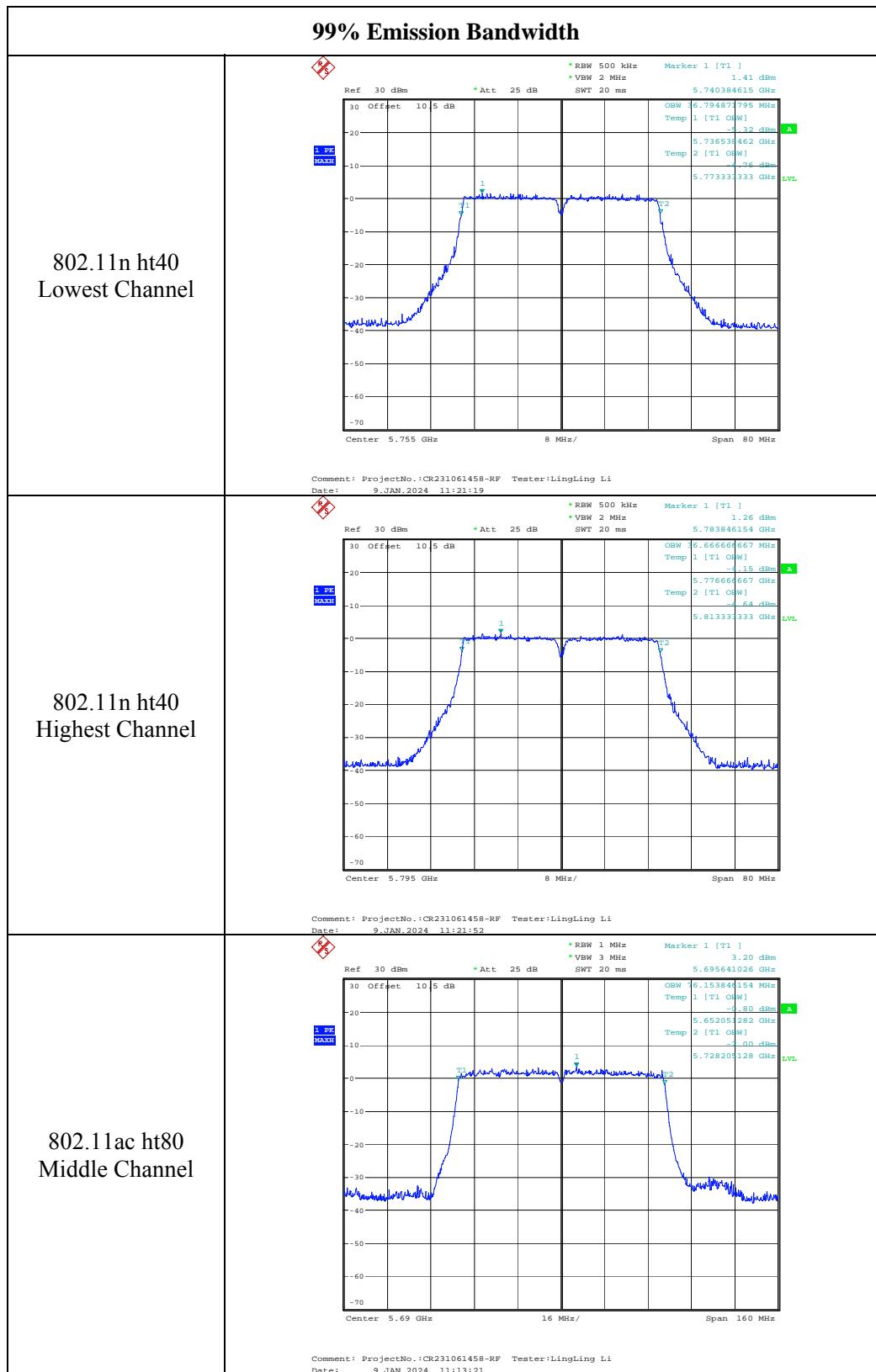


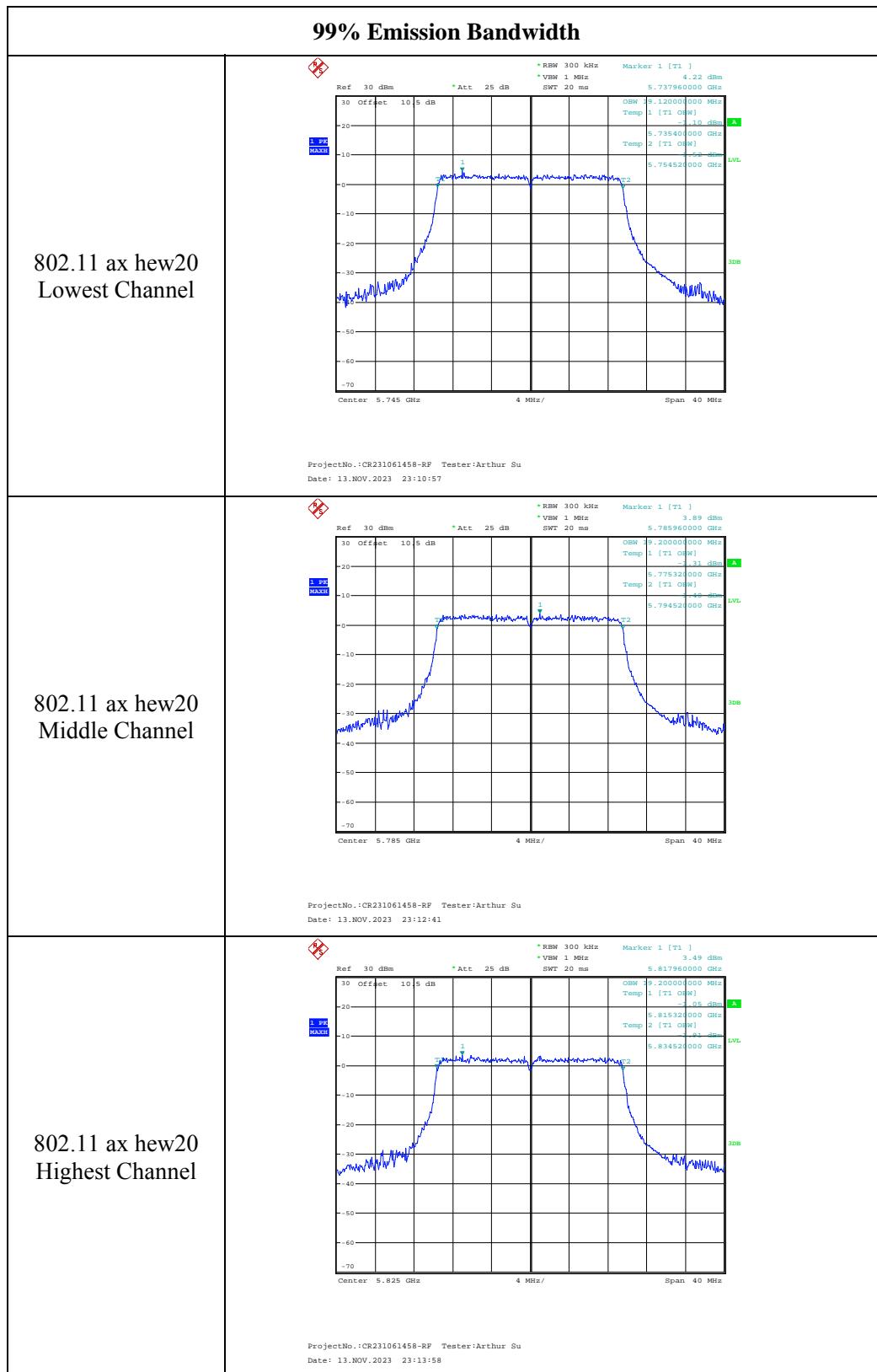


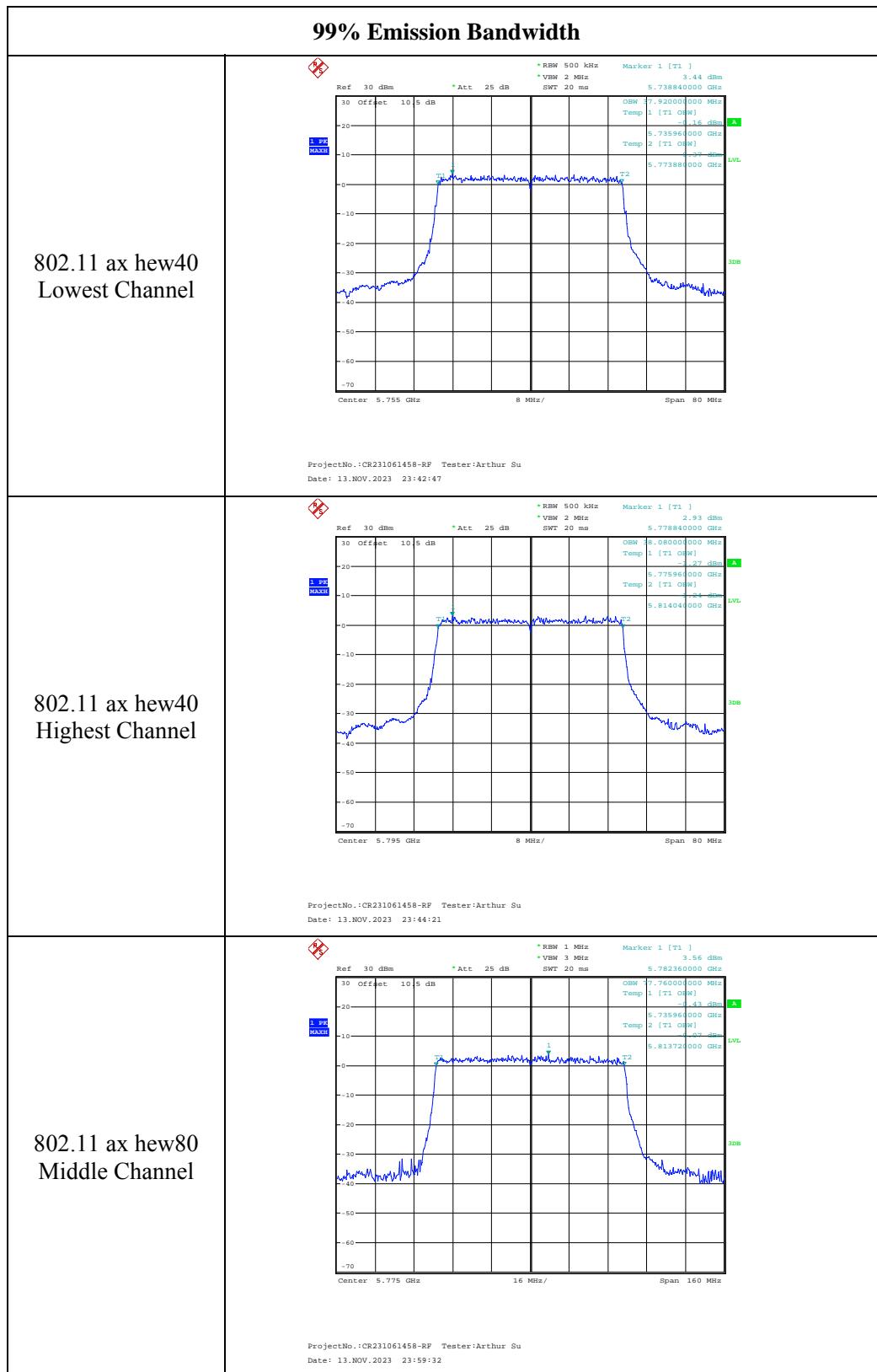












4.4 Maximum Conducted Output Power

Serial Number:	2CHV-2	Test Date:	2023/11/13-2024/1/10
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su/Ling Ling Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	24.5-26.1	Relative Humidity: (%)	45-58	ATM Pressure: (kPa)	100.7-101.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Anritsu	Power Meter	ML2495A	1106009	2023/8/4	2024/8/3
Anritsu	Pulse Power Sensor	MA2411A	10780	2023/8/4	2024/8/3

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Note:

1. The device is a client device.
2. The total Average output power = $10 \times \log [(10^{\text{Chain 0 Average output power}/10}) + (10^{\text{Chain 1 Average output power}/10})]$
3. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:
 Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4 ;
 Directional gain = $G_{\text{ANT MAX}} + \text{Array Gain} = 3.55 \text{ dBi} < 6 \text{ dBi}$;
 So, the maximum output power limit for all bands does not need to be reduced.

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		Chain 0	Chain 1	Total	Limit
802.11a	5180	10.92	11.40	/	24
	5200	10.81	10.80	/	24
	5240	10.53	10.75	/	24
802.11n ht20	5180	10.93	10.80	13.88	24
	5200	10.71	10.77	13.75	24
	5240	10.59	11.28	13.96	24
802.11n ht40	5190	10.68	11.24	13.98	24
	5230	10.44	11.02	13.75	24
802.11ac vht80	5210	10.69	11.23	13.98	24
802.11ax hew20	5180	11.02	11.07	14.06	24
	5200	10.81	11.02	13.93	24
	5240	10.61	11.05	13.85	24
802.11ax hew40	5190	10.72	11.23	13.99	24
	5230	10.51	11.01	13.78	24
802.11ax hew80	5210	10.70	11.19	13.96	24

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		Chain 0	Chain 1	Total	Limit
802.11a	5260	10.54	10.77	/	24
	5280	10.72	10.47	/	24
	5320	10.80	11.01	/	24
802.11n ht20	5260	10.75	10.81	13.79	24
	5280	10.87	10.85	13.87	24
	5320	10.88	10.94	13.92	24
802.11n ht40	5270	10.79	11.20	14.01	24
	5310	10.94	11.00	13.98	24
802.11ac vht80	5290	10.84	10.97	13.92	24
802.11ax hew20	5260	10.65	10.95	13.81	24
	5280	10.82	10.91	13.88	24
	5320	11.11	11.06	14.10	24
802.11ax hew40	5270	10.87	11.03	13.96	24
	5310	10.82	11.13	13.99	24
802.11ax hew80	5290	10.93	10.92	13.94	24

5470-5725 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		Chain 0	Chain 1	Total	Limit
802.11a	5500	10.52	10.63	/	24
	5580	10.21	10.48	/	24
	5700	10.41	10.72	/	24
	5720	10.6	10.68	/	24
802.11n ht20	5500	10.69	10.93	13.82	24
	5580	10.42	10.56	13.50	24
	5700	10.55	10.44	13.51	24
	5720	10.54	10.61	13.59	24
802.11n ht40	5510	10.38	10.91	13.66	24
	5550	10.34	10.49	13.43	24
	5670	10.43	10.27	13.36	24
	5710	10.37	10.24	13.32	24
802.11ac vht80	5530	10.66	10.66	13.67	24
	5610	10.57	10.55	13.57	24
	5690	10.46	10.71	13.60	24
802.11ax hew20	5500	10.53	11.11	13.84	24
	5580	10.22	10.5	13.37	24
	5700	10.71	10.44	13.59	24
	5720	10.74	10.59	13.68	24
802.11ax hew40	5510	10.47	11.12	13.82	24
	5550	10.28	10.64	13.47	24
	5670	10.22	10.42	13.33	24
	5710	10.17	10.37	13.28	24
802.11ax hew80	5530	10.42	10.92	13.69	24
	5610	10.62	10.45	13.55	24
	5690	10.58	10.71	13.66	24

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		Chain 0	Chain 1	Total	Limit
802.11a	5745	10.48	10.52	/	30
	5785	10.23	10.56	/	30
	5825	9.95	10.21	/	30
802.11n ht20	5745	10.90	10.99	13.96	30
	5785	10.67	10.54	13.62	30
	5825	10.14	10.57	13.37	30
802.11n ht40	5755	10.69	10.61	13.66	30
	5795	10.40	10.30	13.36	30
802.11ac vht80	5775	10.61	10.43	13.53	30
802.11ax hew20	5745	10.74	10.84	13.80	30
	5785	10.82	10.54	13.69	30
	5825	10.25	10.66	13.47	30
802.11ax hew40	5755	10.66	10.7	13.69	30
	5795	10.36	10.45	13.42	30
802.11ax hew80	5775	10.84	10.55	13.71	30

4.5 Maximum Power Spectral Density

Serial Number:	2CHV-2	Test Date:	2023/11/13-2024/1/10
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su/Ling Ling Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	24.5-26.1	Relative Humidity: (%)	45-58	ATM Pressure: (kPa)	100.7-101.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Please refer to the below table and plots.

Note:

1. The device is a client device.
2. The Result Power Spectral Density for each Chain = Chain Power Spectral Density + duty cycle factor
3. The total Power Spectral Density = $10 \log [(10^{\text{Chain 0 Power Spectral Density}/10}) + (10^{\text{Chain 1 Power Spectral Density}/10})] + \text{duty cycle factor}$
4. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on IEEE 802.11 devices, the Array Gain = $10 \log (N_{\text{ANT}}/N_{\text{SS}})$ dB;
So, the Directional gain = $G_{\text{ANT MAX}} + 10 \log (N_{\text{ANT}}/N_{\text{SS}}) = 3.55 + 10 \log (2/1) = 6.55 \text{ dBi} > 6 \text{ dBi}$.
So, the power spectral density (PSD) limit for MIMO Mode should be reduced:
1) for U-NII-1 Band (5150~5250MHz), U-NII-2A Band (5250~5350MHz), U-NII-2C Band (5470~5725MHz): Maximum Power Spectral Density Limit = $11 - (6.55 - 6) \text{ dBm/MHz} = 10.45 \text{ dBm/MHz}$
2) for U-NII-3 Band (5725~5850MHz): Maximum Power Spectral Density Limit = $30 - (6.55 - 6) \text{ dBm/MHz} = 29.45 \text{ dBm/500kHz}$
5. for the Duty cycle <98%, and duty cycle variations are less than ±2%, KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 was performed to the PSD test.
6. for Duty cycle <98%, and duty cycle be considered to be constant (variations are less than ±2%), the duty cycle factor was added into the result.
7. The duty cycle factor refers to section 4.6.

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)						
		Reading		Duty Factor (dB)	Results			Limit
		Chain 0	Chain 1		Chain 0	Chain 1	Total	
802.11a	5180	-0.85	-0.31	1.06	0.21	0.75	/	11
	5200	-0.85	-0.49	1.06	0.21	0.57	/	11
	5240	-1.07	-0.54	1.06	-0.01	0.52	/	11
802.11n ht20	5180	-0.16	-0.35	0.52	/	/	3.28	10.45
	5200	-0.24	-0.33	0.52	/	/	3.25	10.45
	5240	-0.29	-0.26	0.52	/	/	3.26	10.45
802.11n ht40	5190	-3.29	-3.54	0.49	/	/	0.08	10.45
	5230	-3.29	-3.23	0.49	/	/	0.24	10.45
802.11ac vht80	5210	-7.06	-7.14	0.59	/	/	-3.50	10.45
802.11ax hew20	5180	-1.91	-0.92	0.64	/	/	2.26	10.45
	5200	-1.73	-0.96	0.64	/	/	2.32	10.45
	5240	-1.83	-1.00	0.64	/	/	2.25	10.45
802.11ax hew40	5190	-4.92	-4.33	1.02	/	/	-0.59	10.45
	5230	-4.91	-4.46	1.02	/	/	-0.65	10.45
802.11ax hew80	5210	-8.19	-7.27	0.98	/	/	-3.72	10.45

5250-5350 MHz:

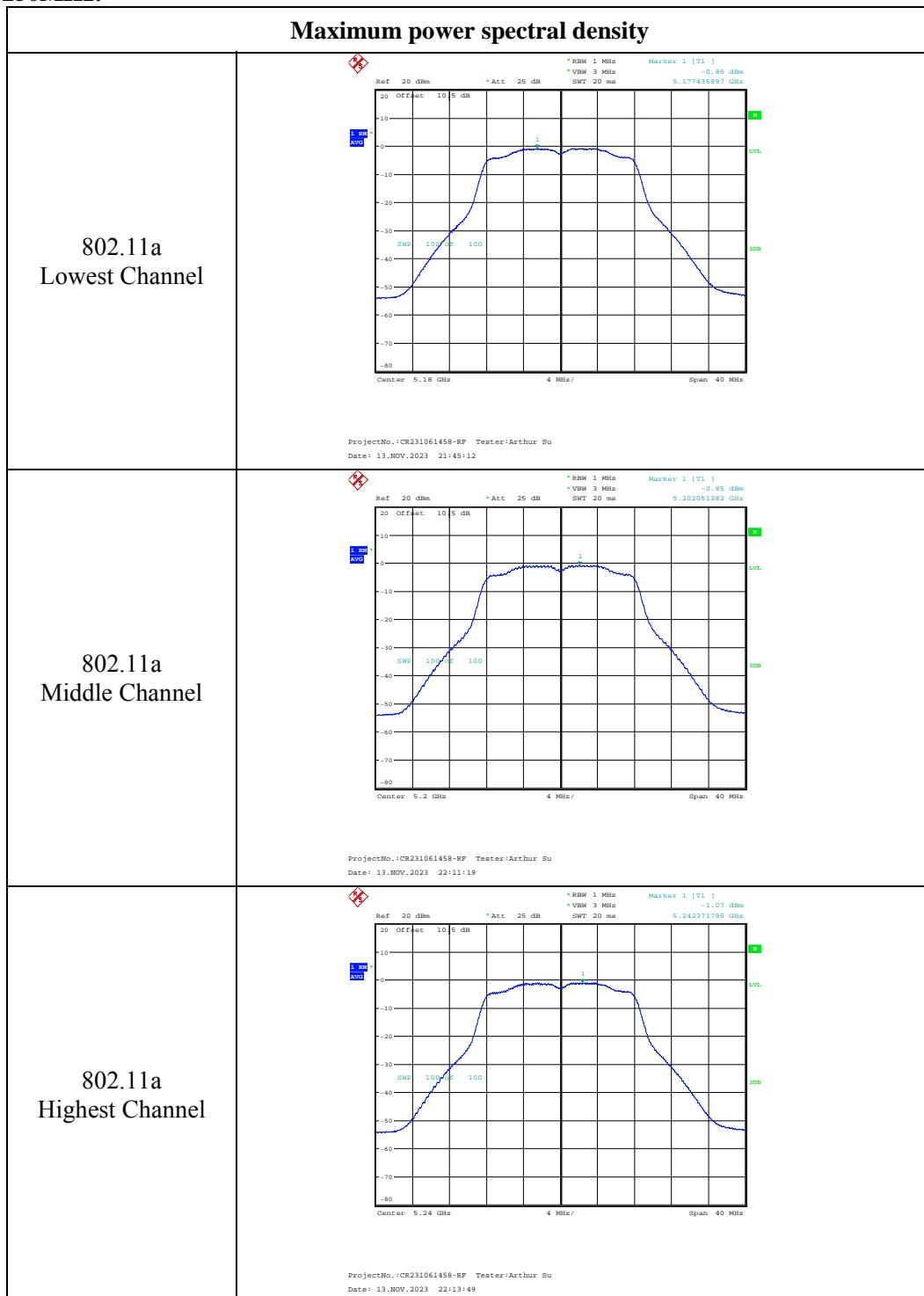
Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)						
		Reading		Duty Factor (dB)	Results			Limit
		Chain 0	Chain 1		Chain 0	Chain 1	Total	
802.11a	5260	-0.88	-0.35	1.06	0.18	0.71	/	11
	5280	-0.76	-0.51	1.06	0.30	0.55	/	11
	5320	-0.84	-0.53	1.06	0.22	0.53	/	11
802.11n ht20	5260	-0.22	0.03	0.52	/	/	3.44	10.45
	5280	-0.19	0.02	0.52	/	/	3.45	10.45
	5320	-0.36	-0.28	0.52	/	/	3.21	10.45
802.11n ht40	5270	-3.44	-3.47	0.49	/	/	0.04	10.45
	5310	-3.49	-3.72	0.49	/	/	-0.11	10.45
802.11ac vht80	5290	-7.07	-7.31	0.59	/	/	-3.59	10.45
802.11ax hew20	5260	-1.76	-1.19	0.64	/	/	2.18	10.45
	5280	-1.92	-0.93	0.64	/	/	2.25	10.45
	5320	-1.86	-0.94	0.64	/	/	2.27	10.45
802.11ax hew40	5270	-5.17	-4.17	1.02	/	/	-0.62	10.45
	5310	-5.16	-4.6	1.02	/	/	-0.85	10.45
802.11ax hew80	5290	-8	-7.43	0.98	/	/	-3.72	10.45

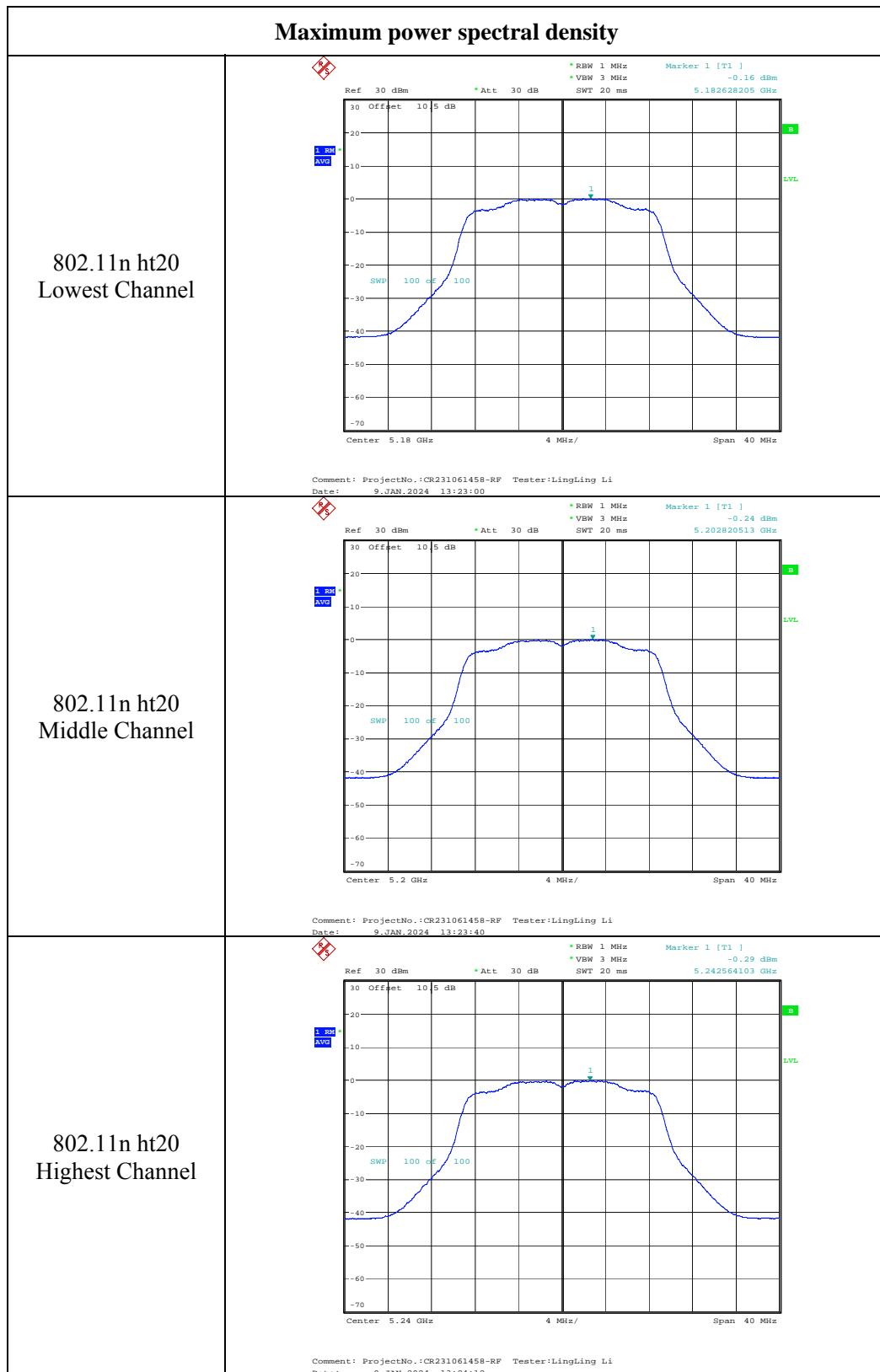
5470-5725 MHz:

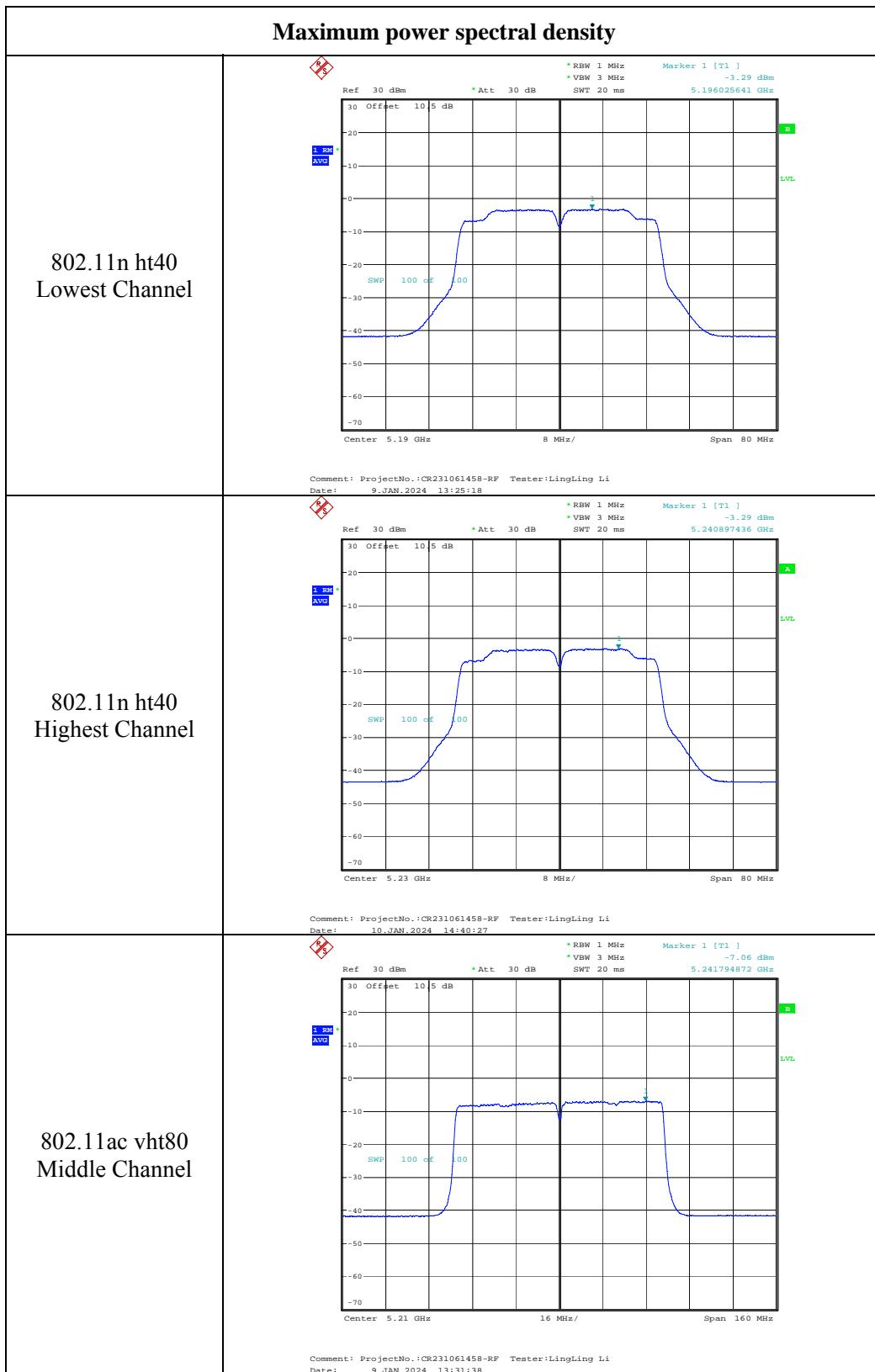
Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)						Limit	
		Reading		Duty Factor (dB)	Results				
		Chain 0	Chain 1		Chain 0	Chain 1	Total		
802.11a	5500	-1.22	-0.44	1.06	-0.16	0.62	/	11	
	5580	-1.34	-0.86	1.06	-0.28	0.20	/	11	
	5700	-1.03	-0.69	1.06	0.03	0.37	/	11	
	5720	-0.87	-0.71	1.06	0.19	0.35	/	11	
802.11n ht20	5500	-0.58	-0.36	0.52	/	/	3.06	10.45	
	5580	-0.60	-0.52	0.52	/	/	2.97	10.45	
	5700	-0.73	-0.82	0.52	/	/	2.76	10.45	
	5720	-0.61	-0.59	0.52	/	/	2.93	10.45	
802.11n ht40	5510	-3.66	-3.79	0.49	/	/	-0.23	10.45	
	5550	-3.65	-3.81	0.49	/	/	-0.23	10.45	
	5670	-3.67	-4.05	0.49	/	/	-0.36	10.45	
	5710	-3.66	-3.89	0.49	/	/	-0.28	10.45	
802.11ac vht80	5530	-7.39	-7.43	0.59	/	/	-3.81	10.45	
	5610	-7.58	-7.78	0.59	/	/	-4.08	10.45	
	5690	-7.44	-7.65	0.59	/	/	-3.94	10.45	
802.11ax hew20	5500	-1.84	-1.12	0.64	/	/	2.18	10.45	
	5580	-2.18	-1.56	0.64	/	/	1.79	10.45	
	5700	-2.19	-1.6	0.64	/	/	1.76	10.45	
	5720	-1.84	-1.32	0.64	/	/	2.07	10.45	
802.11ax hew40	5510	-5.29	-4.65	1.02	/	/	-0.93	10.45	
	5550	-5.54	-4.7	1.02	/	/	-1.07	10.45	
	5670	-5.64	-4.85	1.02	/	/	-1.20	10.45	
	5710	-5.42	-4.73	1.02	/	/	-1.04	10.45	
802.11ax hew80	5530	-8.34	-7.67	0.98	/	/	-4.00	10.45	
	5610	-8.8	-7.86	0.98	/	/	-4.31	10.45	
	5690	-8.31	-7.67	0.98	/	/	-3.99	10.45	

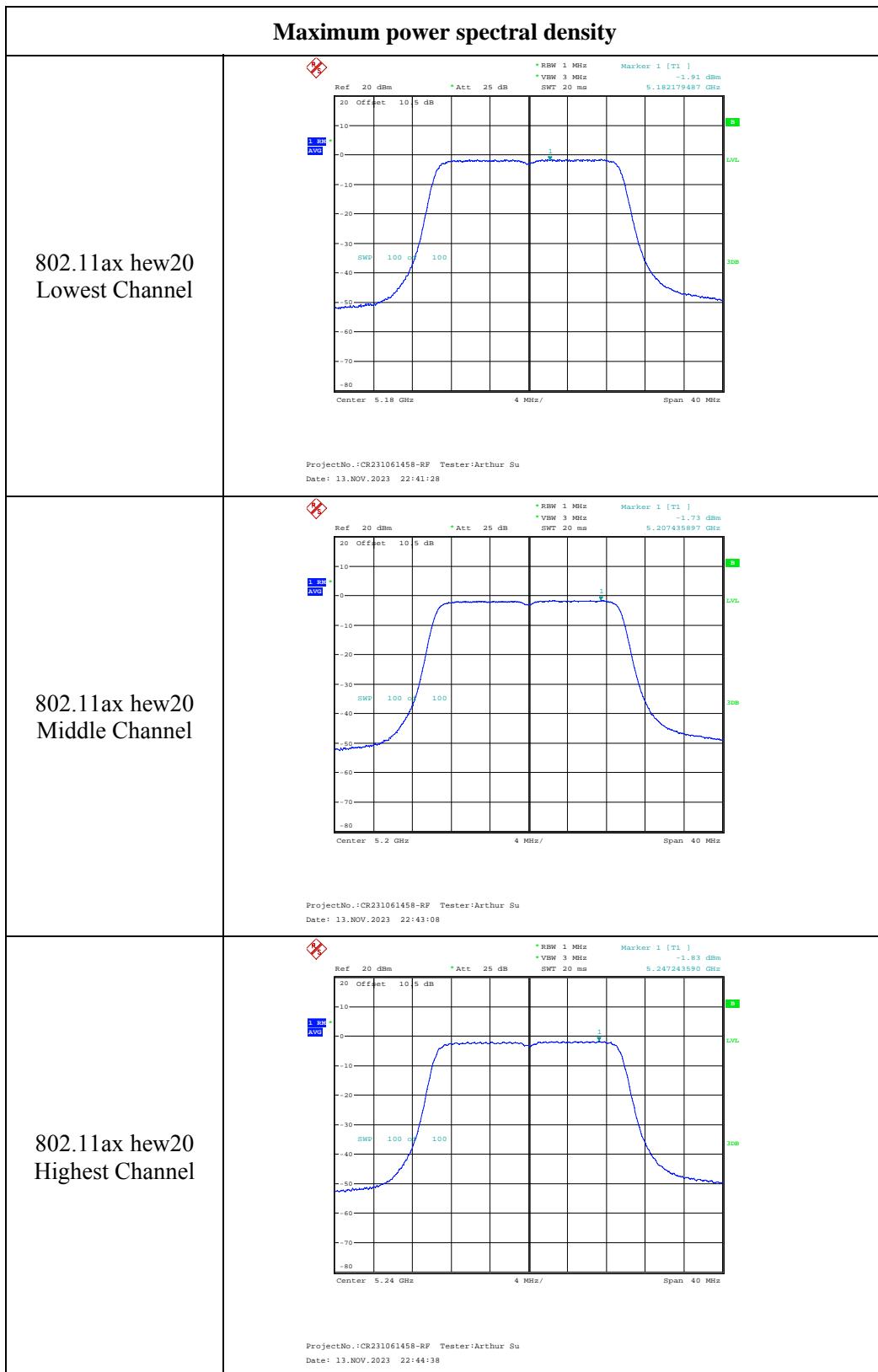
Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/500kHz)						Limit	
		Reading		Duty Factor (dB)	Results				
		Chain 0	Chain 1		Chain 0	Chain 1	Total		
802.11a	5745	-4.57	-4.08	1.06	-3.51	-3.02	/	30	
	5785	-4.61	-4.46	1.06	-3.55	-3.40	/	30	
	5825	-4.92	-4.18	1.06	-3.86	-3.12	/	30	
802.11n ht20	5745	-4.07	-4.65	0.52	/	/	-0.82	29.45	
	5785	-3.85	-4.74	0.52	/	/	-0.74	29.45	
	5825	-4.20	-4.86	0.52	/	/	-0.99	29.45	
802.11n ht40	5755	-7.06	-7.70	0.49	/	/	-3.87	29.45	
	5795	-7.22	-7.97	0.49	/	/	-4.08	29.45	
802.11ac vht80	5775	-10.07	-10.78	0.59	/	/	-6.81	29.45	
802.11ax hew20	5745	-4.54	-4.14	0.64	/	/	-0.69	29.45	
	5785	-4.73	-4.05	0.64	/	/	-0.73	29.45	
	5825	-4.92	-4.2	0.64	/	/	-0.90	29.45	
802.11ax hew40	5755	-7.97	-7.25	1.02	/	/	-3.57	29.45	
	5795	-7.83	-7.43	1.02	/	/	-3.60	29.45	
802.11ax hew80	5775	-11.07	-10.62	0.98	/	/	-6.85	29.45	

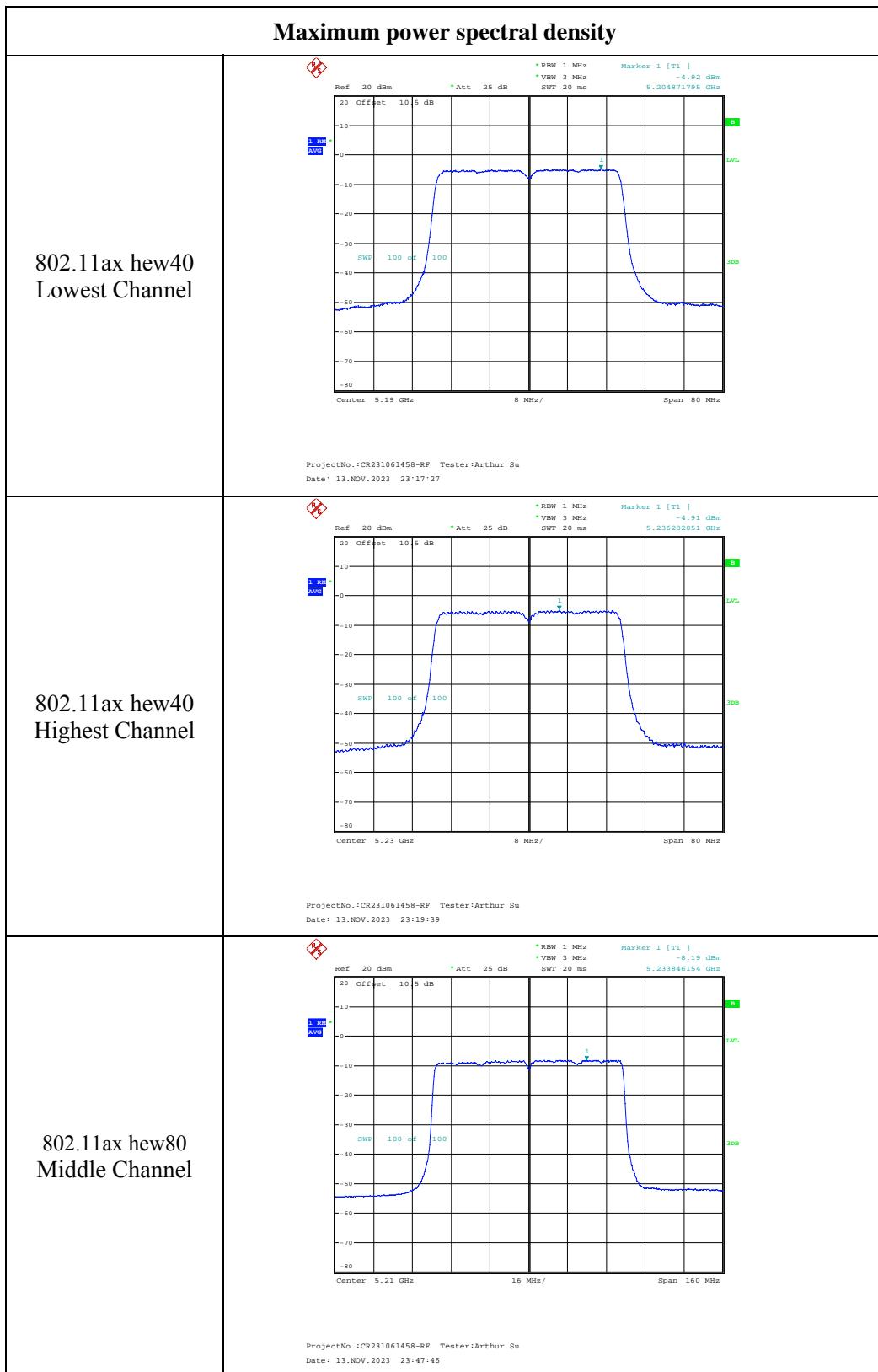
**Chain 0:
5150-5250MHz:**

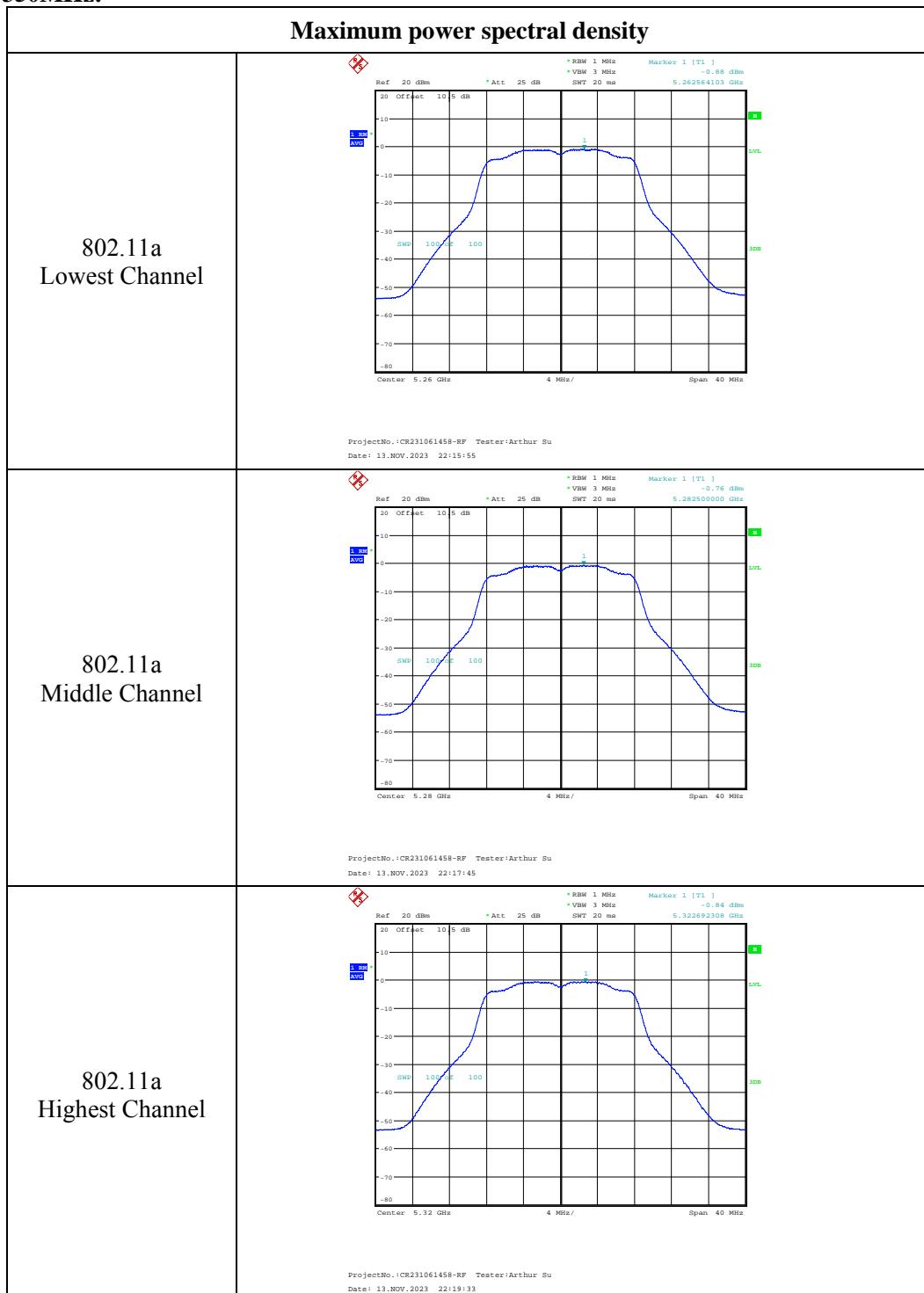


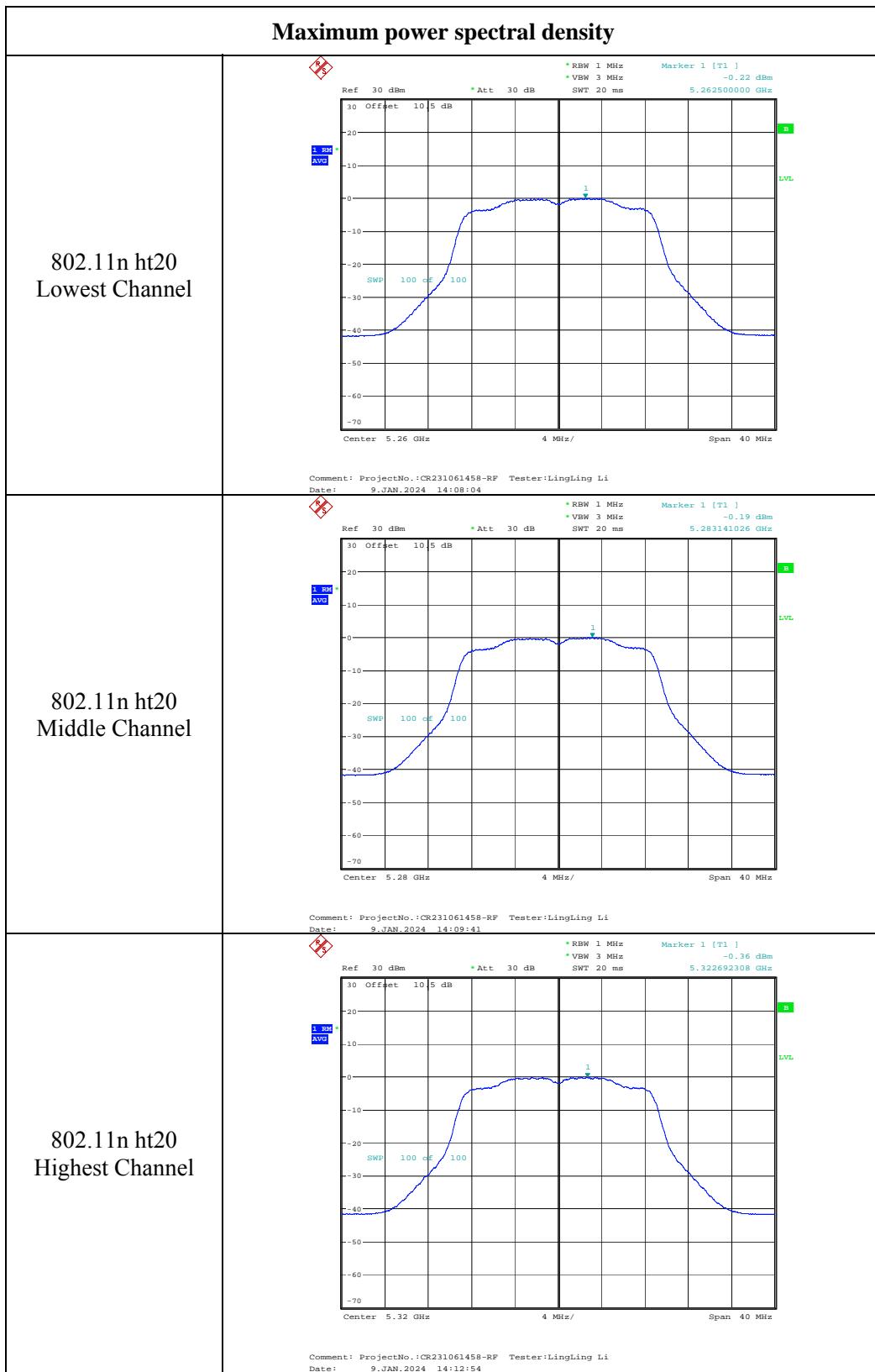


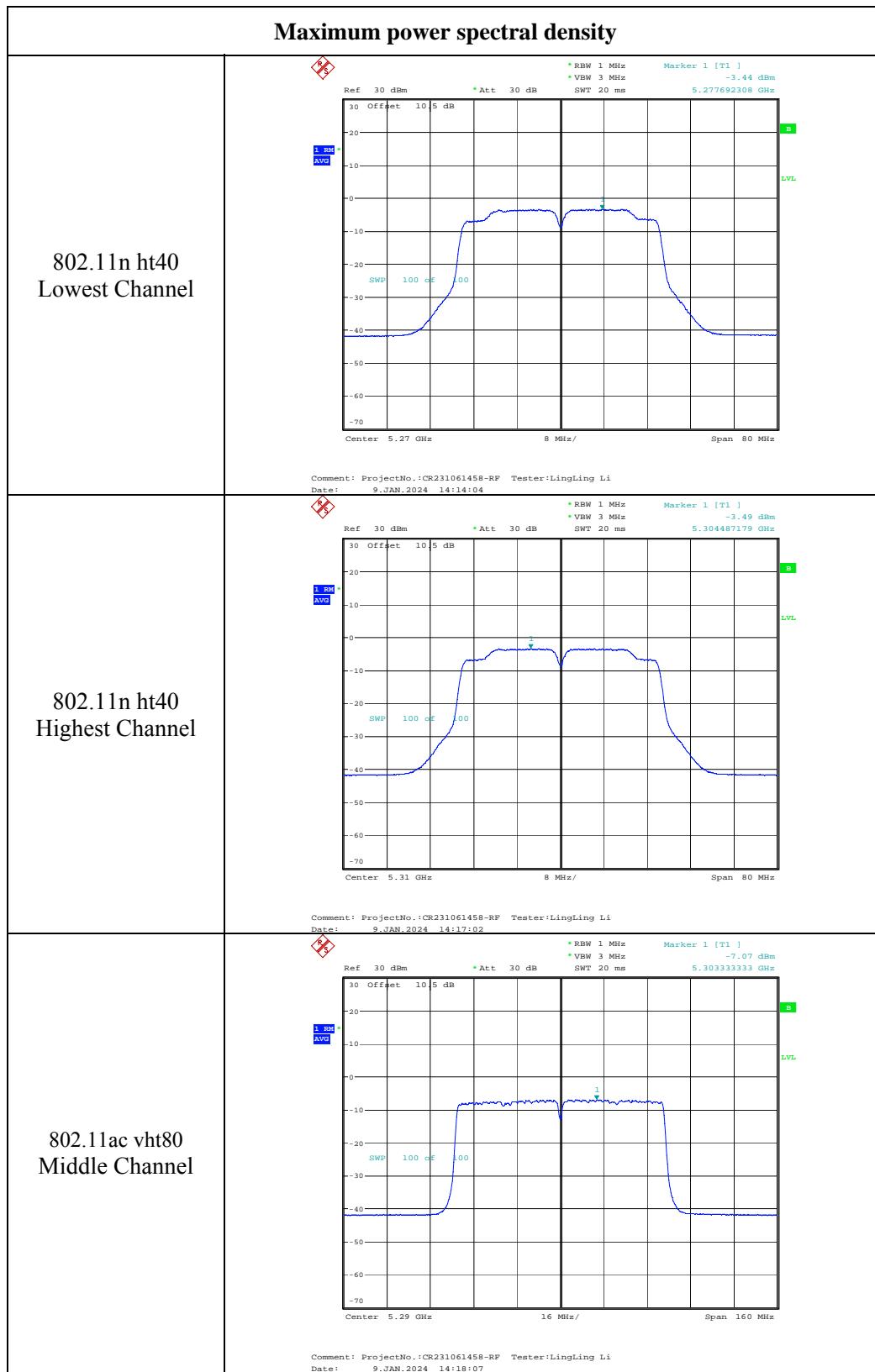


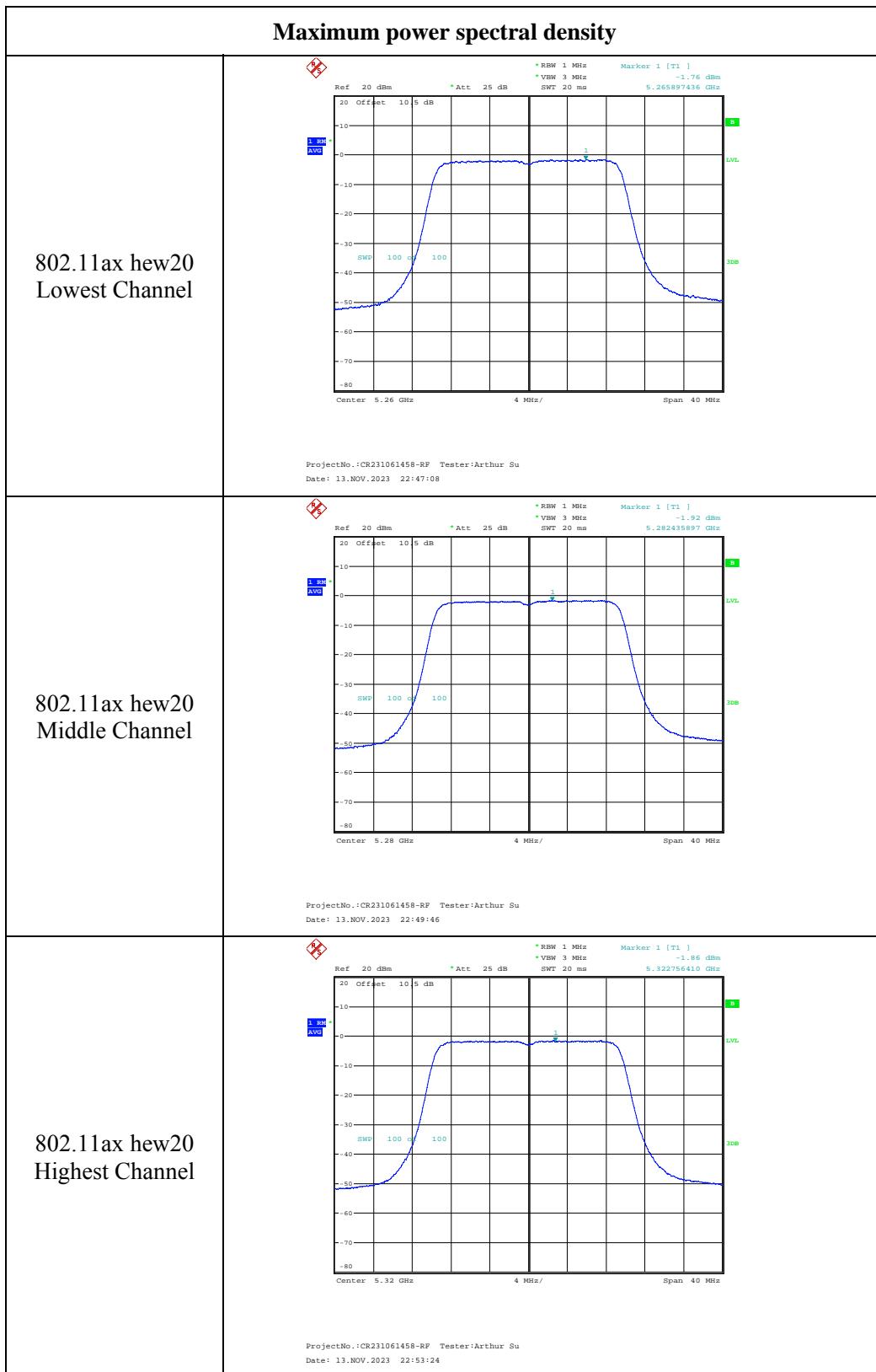


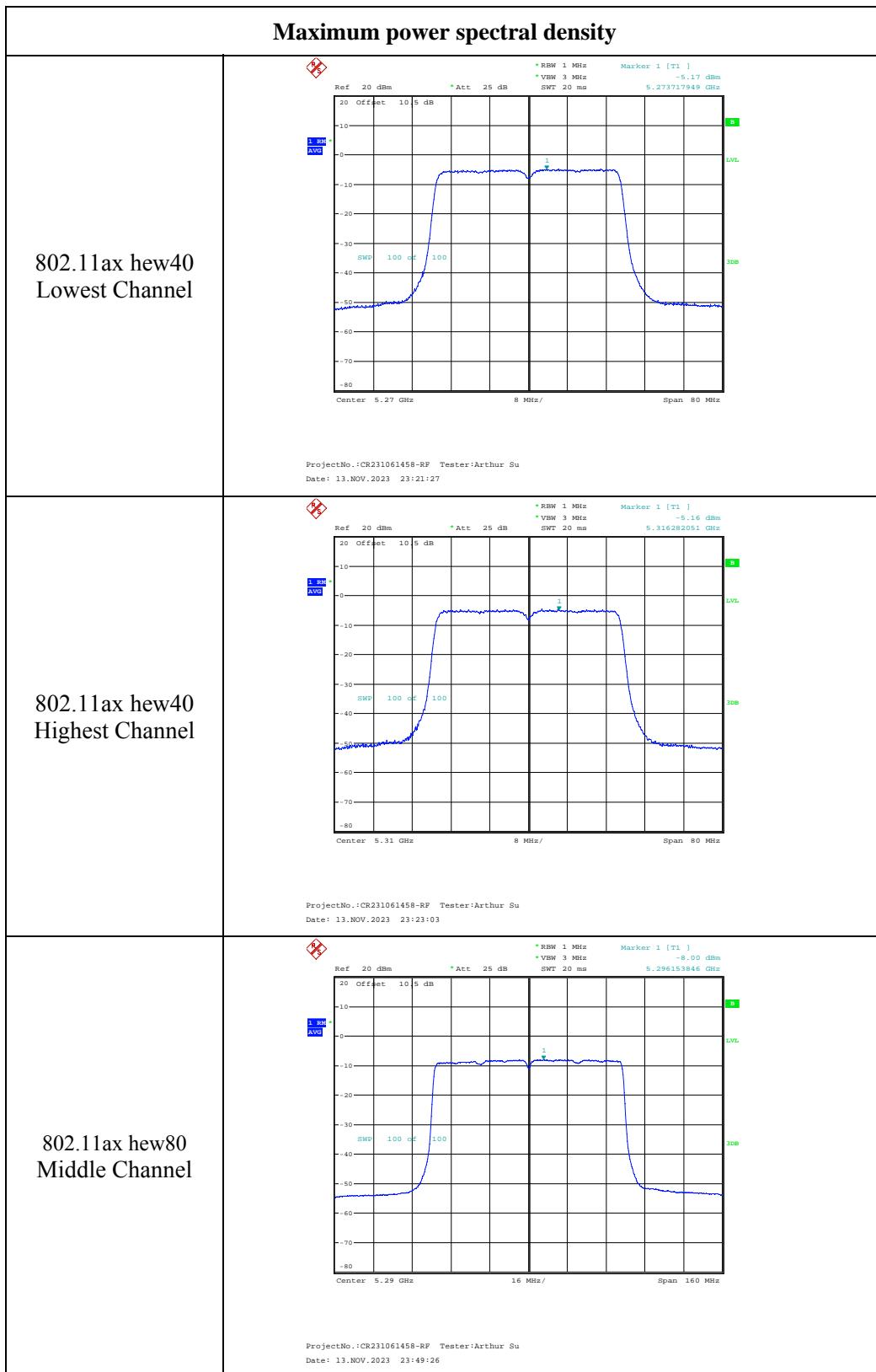


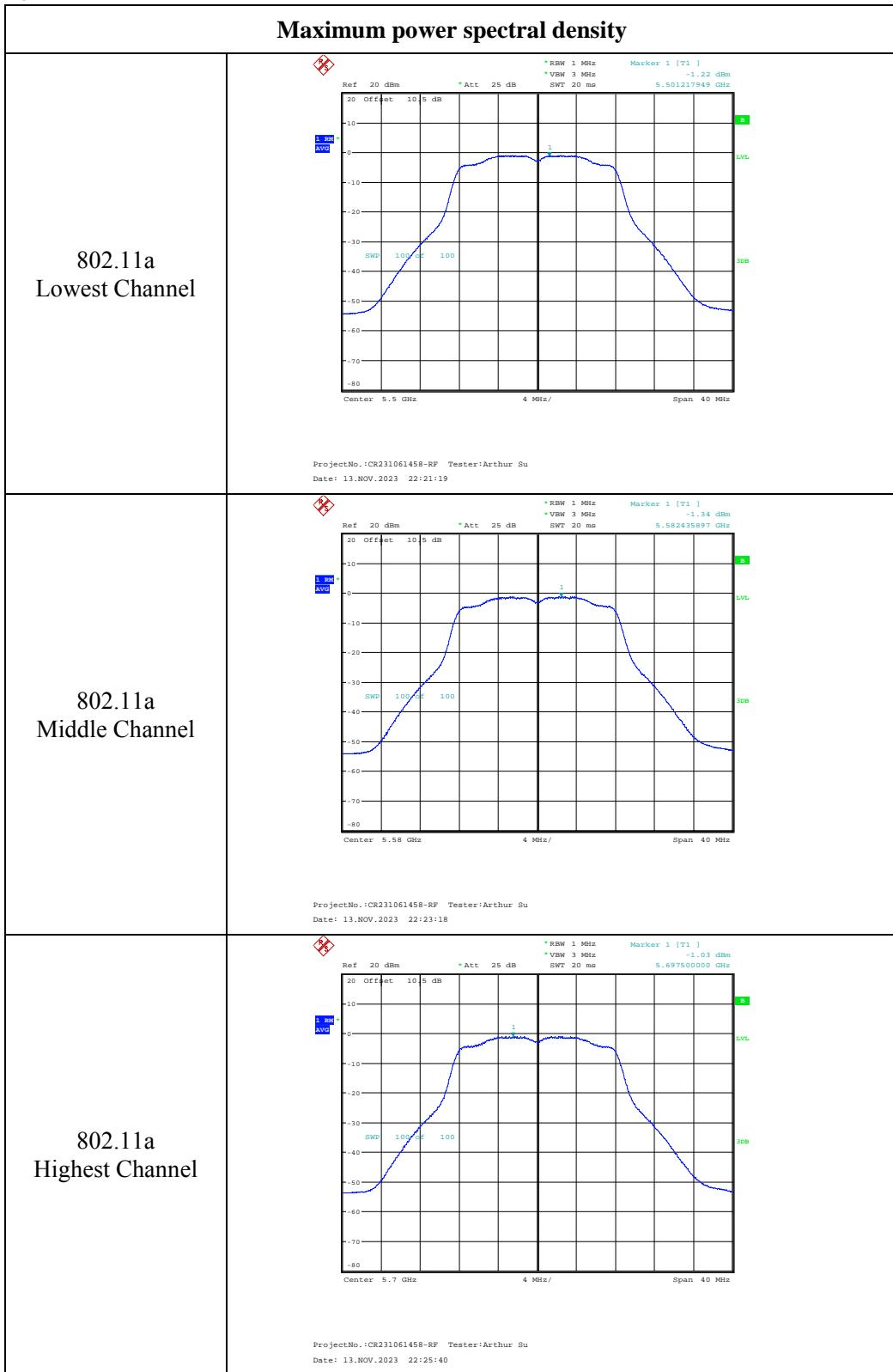
5250-5350MHz:

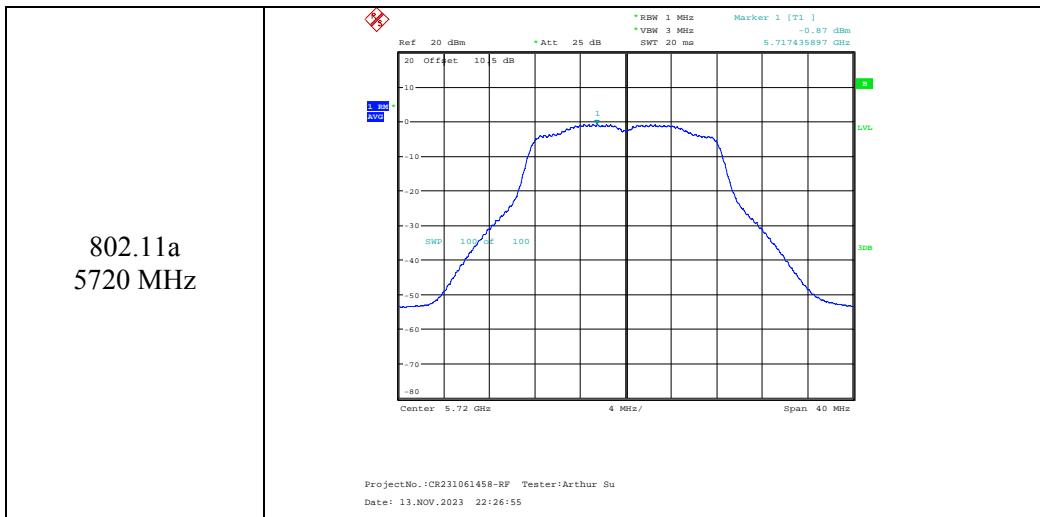


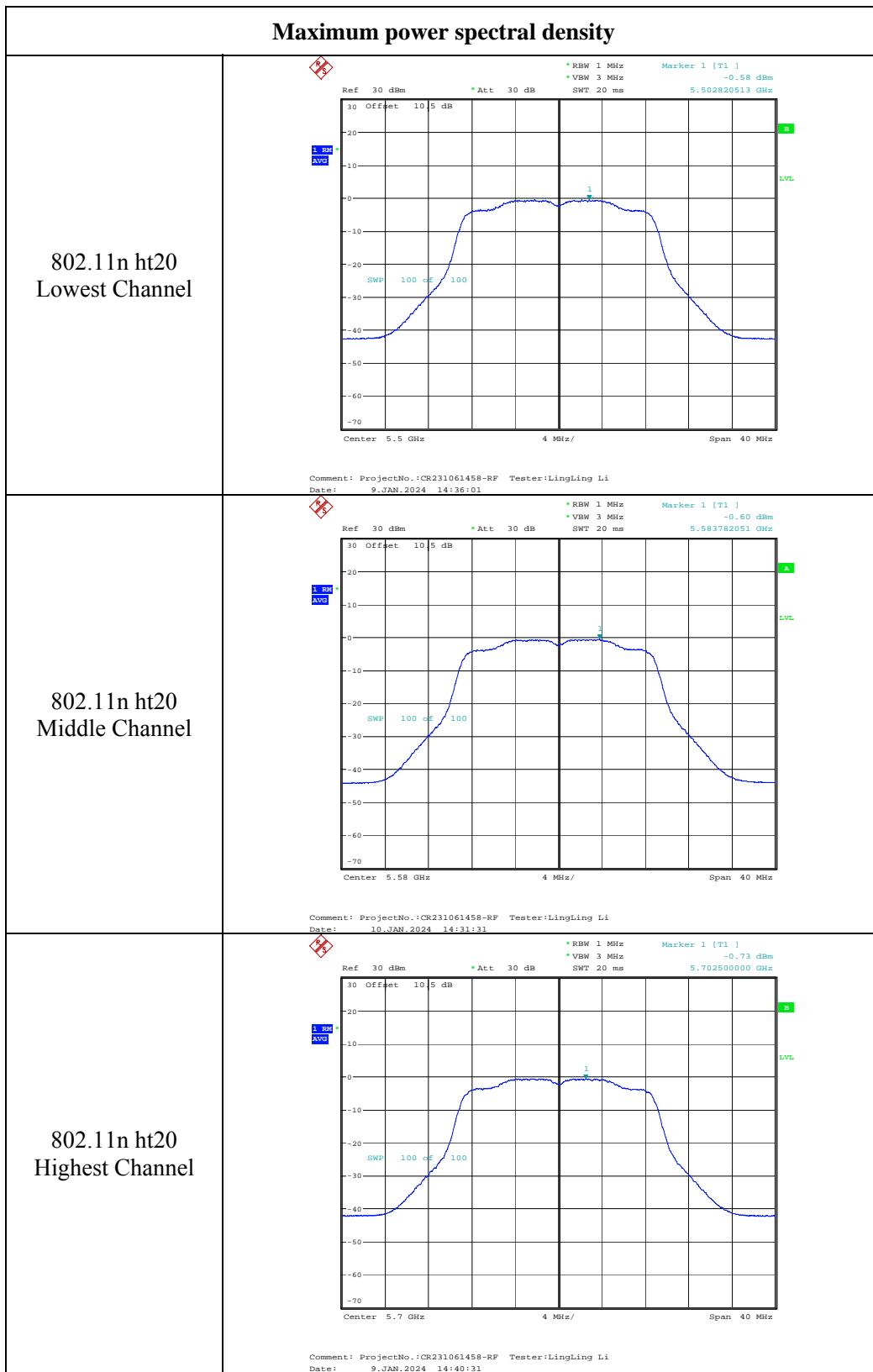




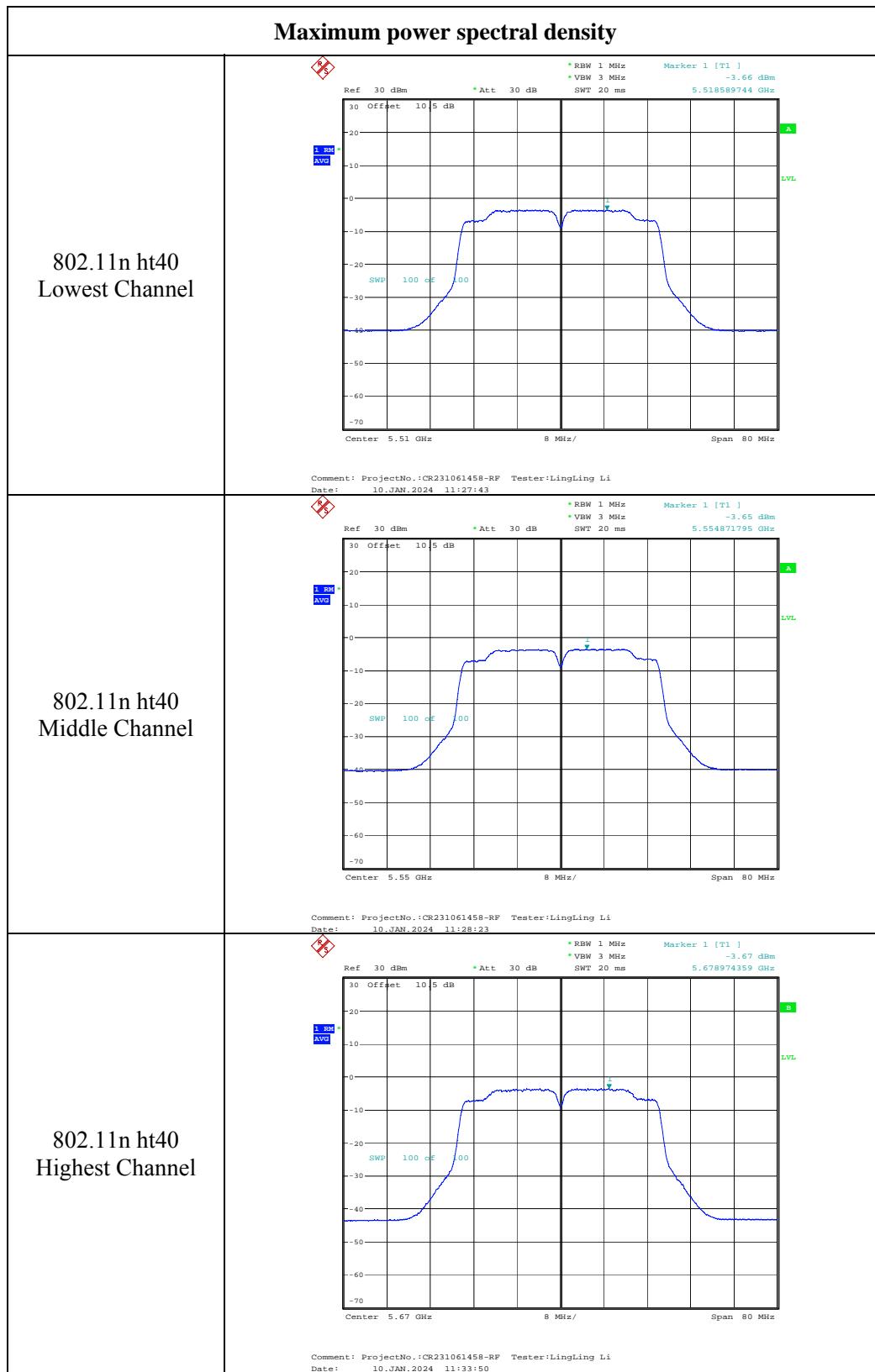


5470-5725MHz

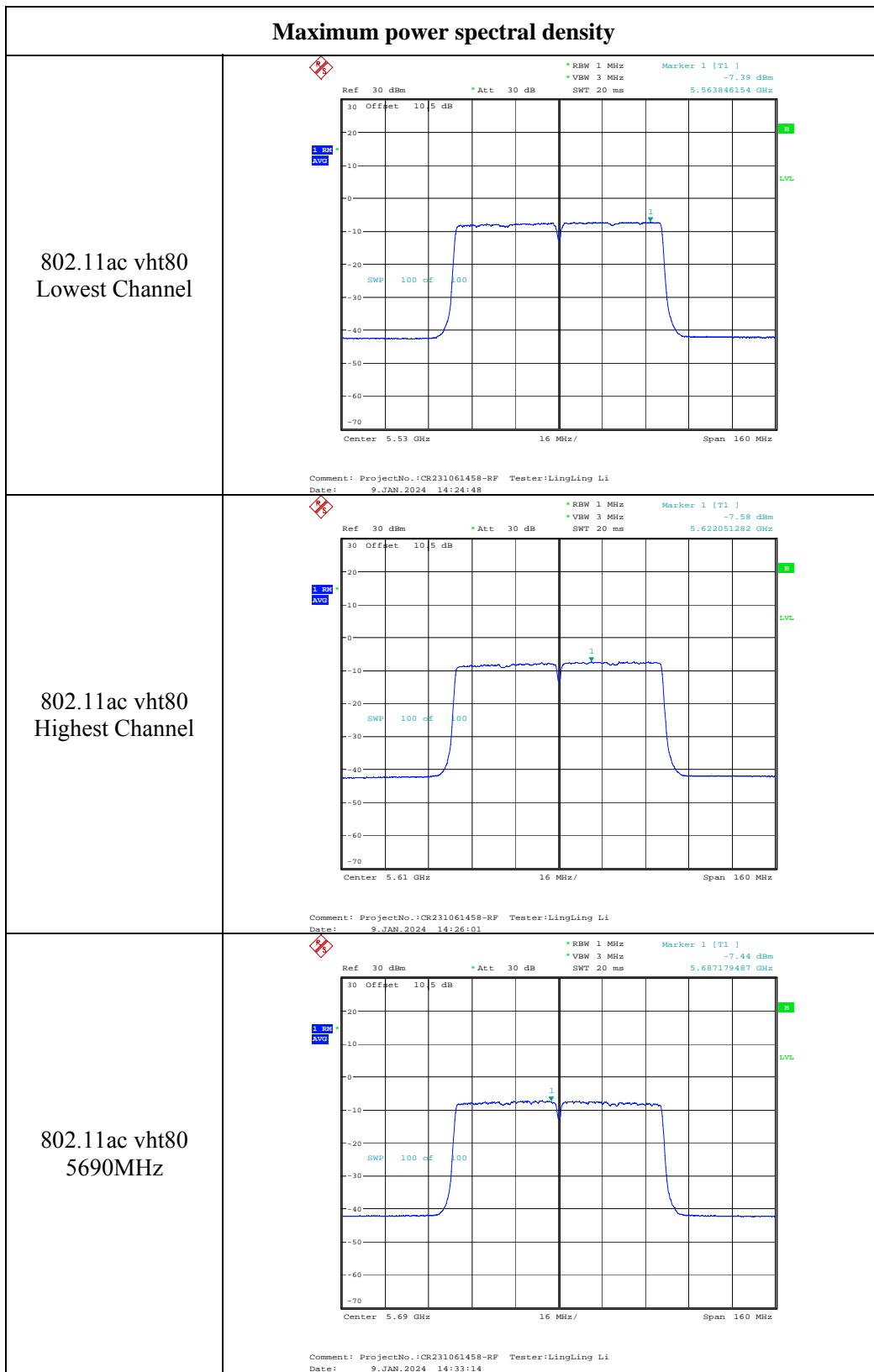


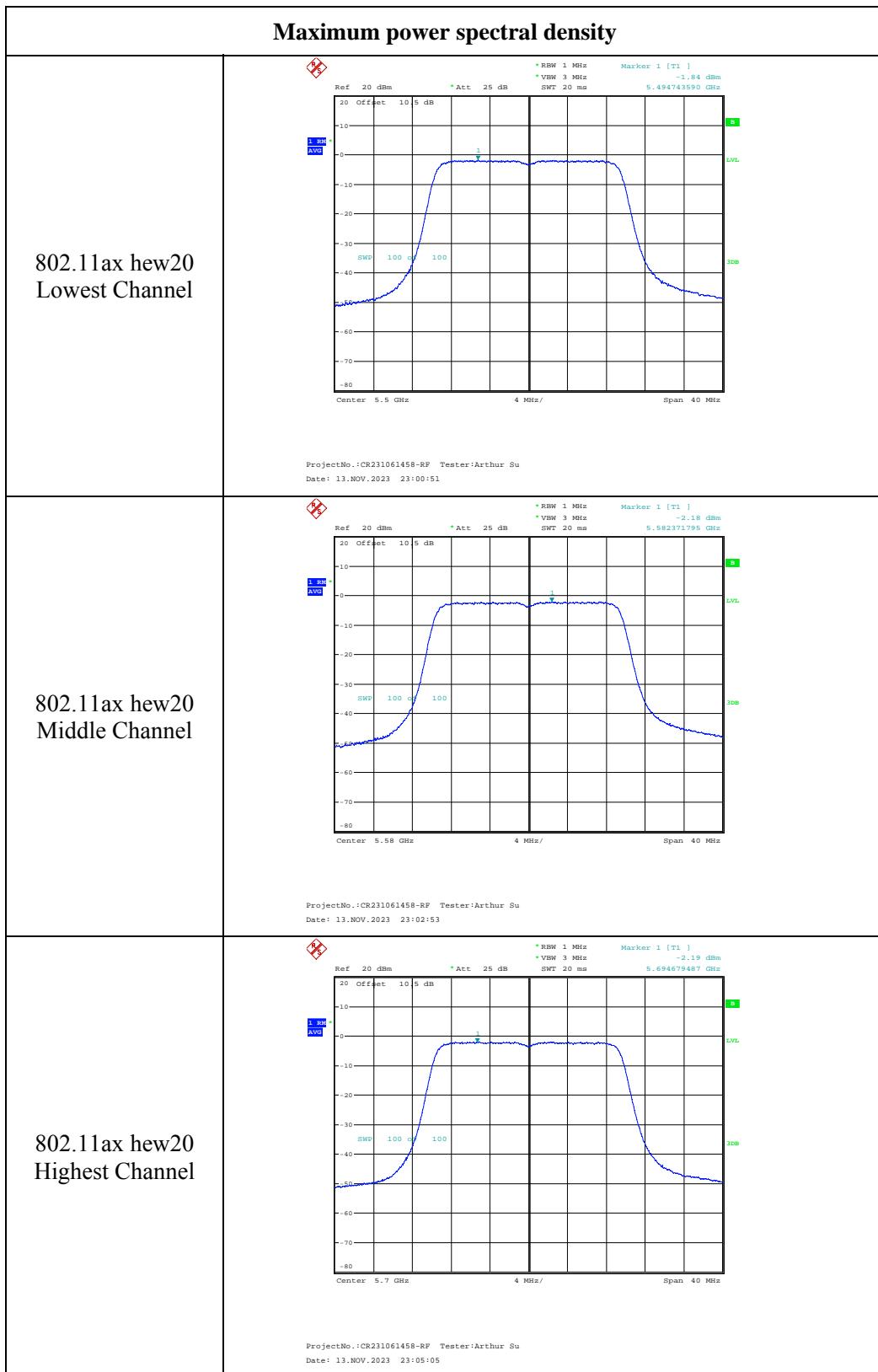


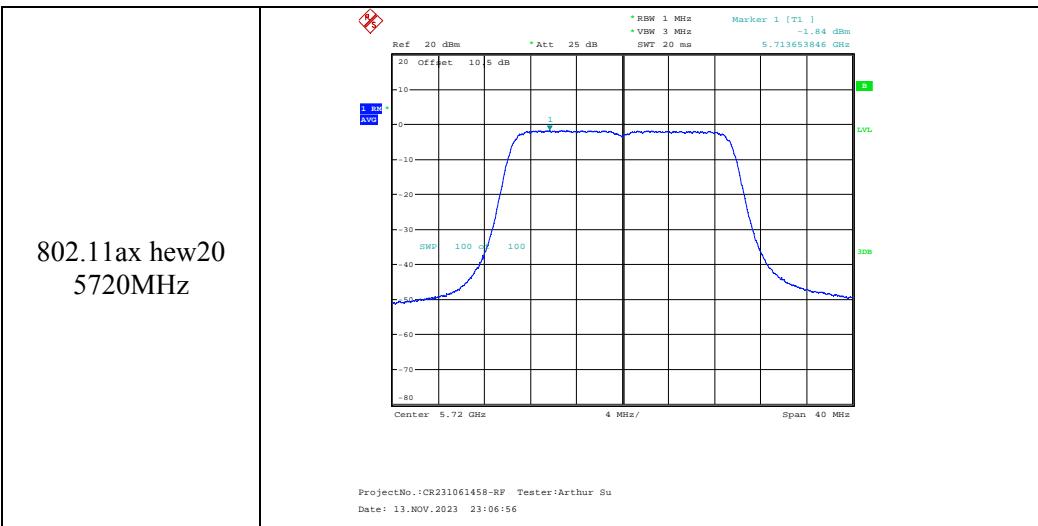


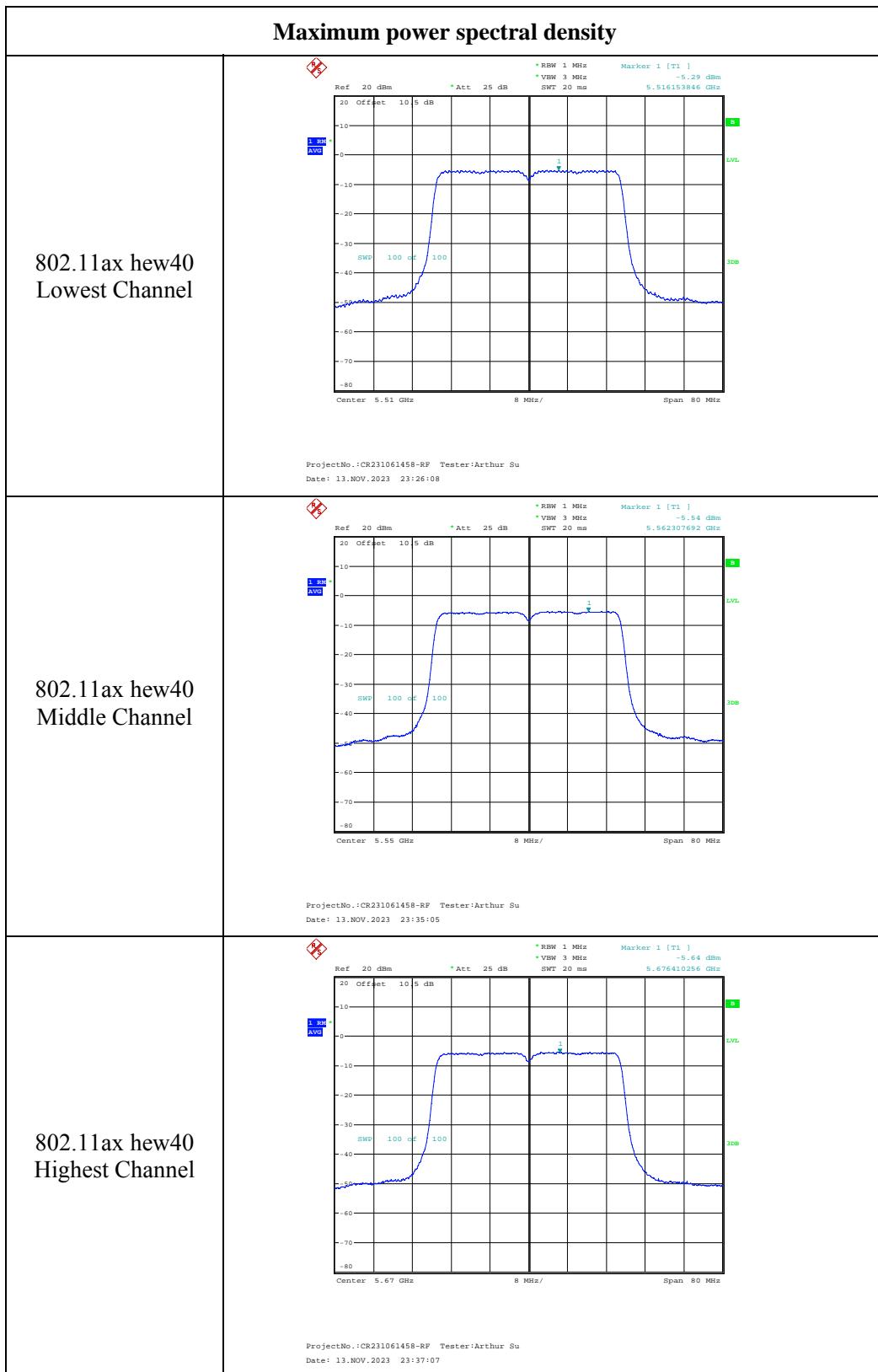




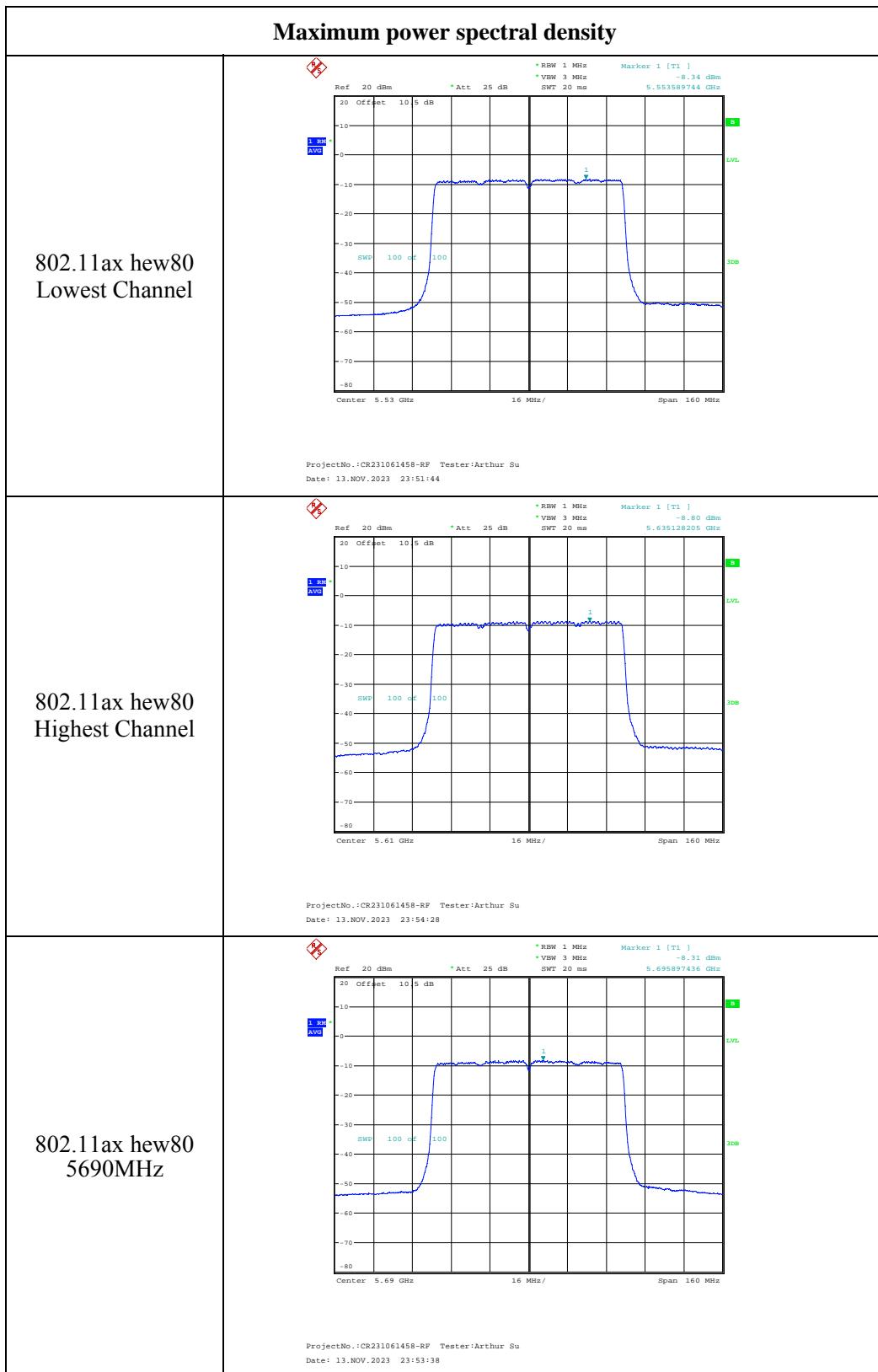


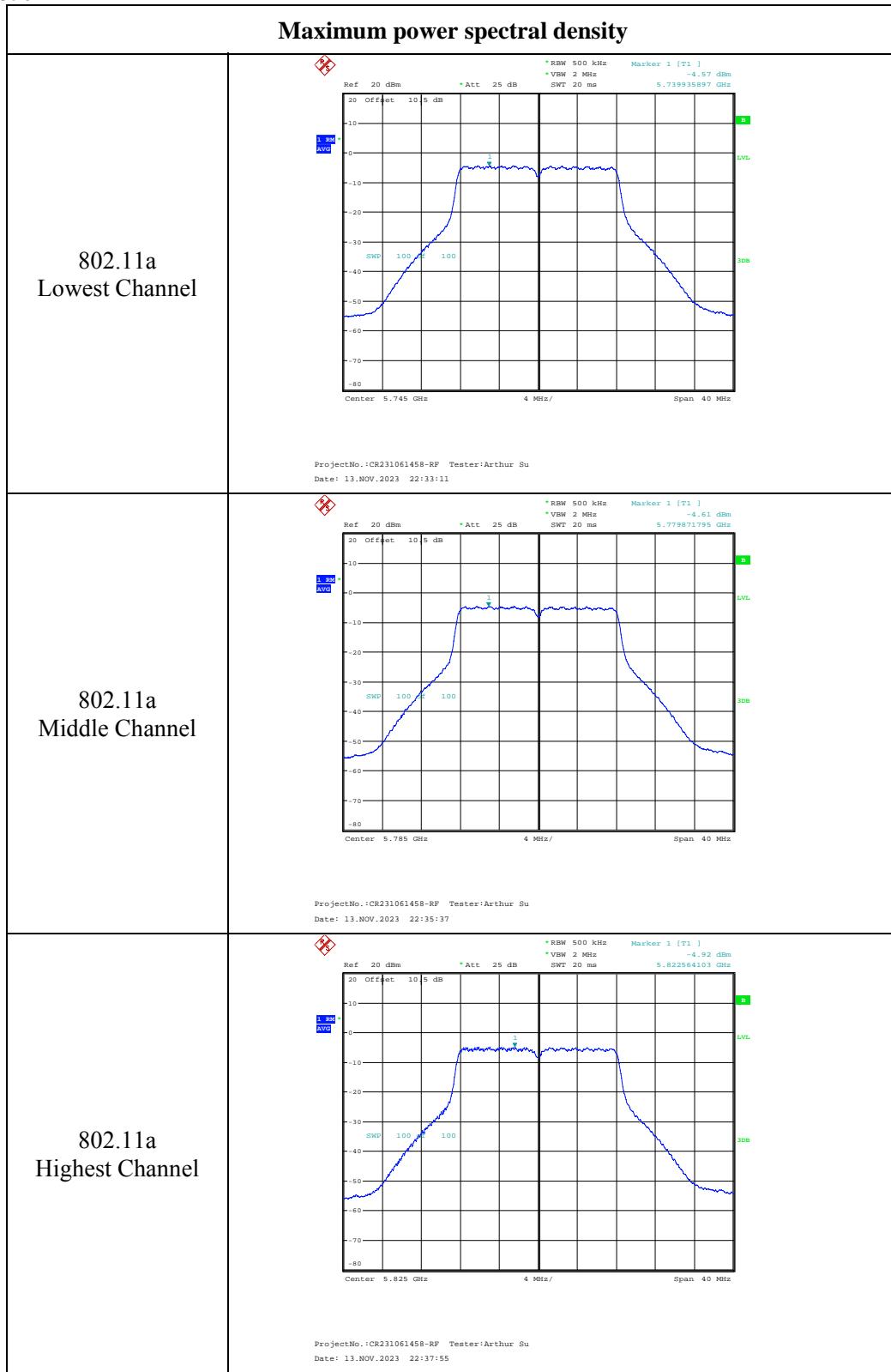


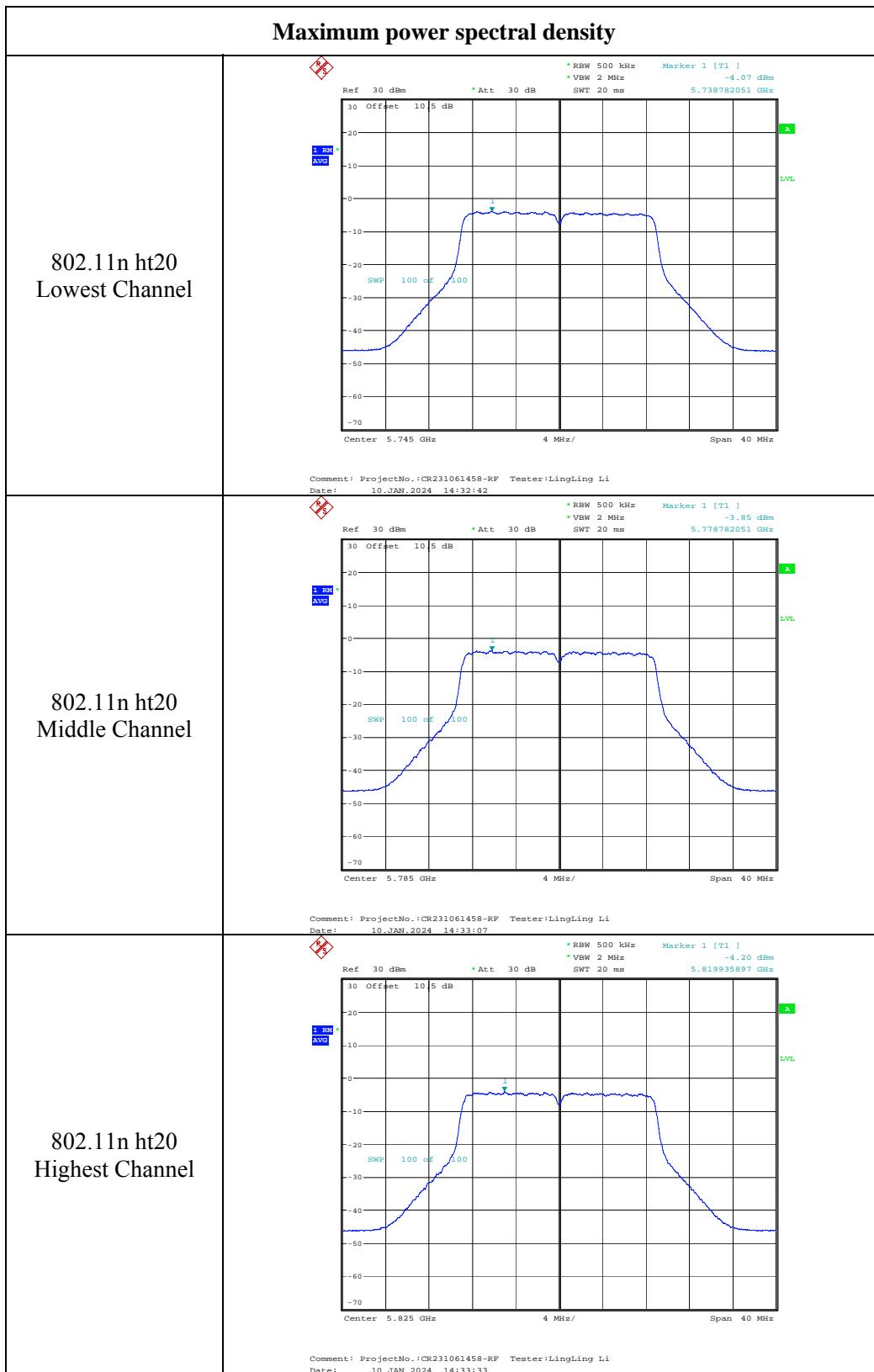


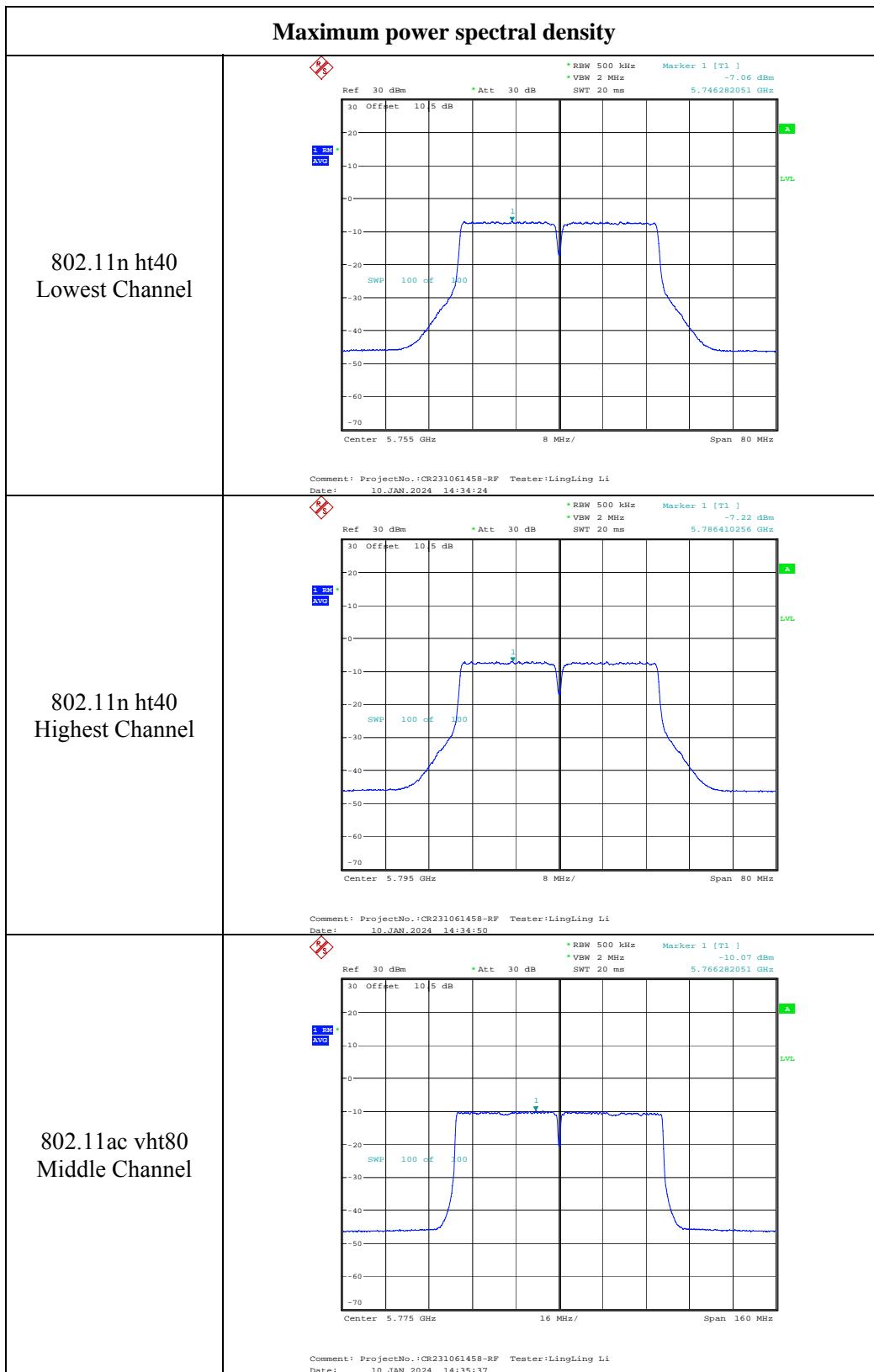


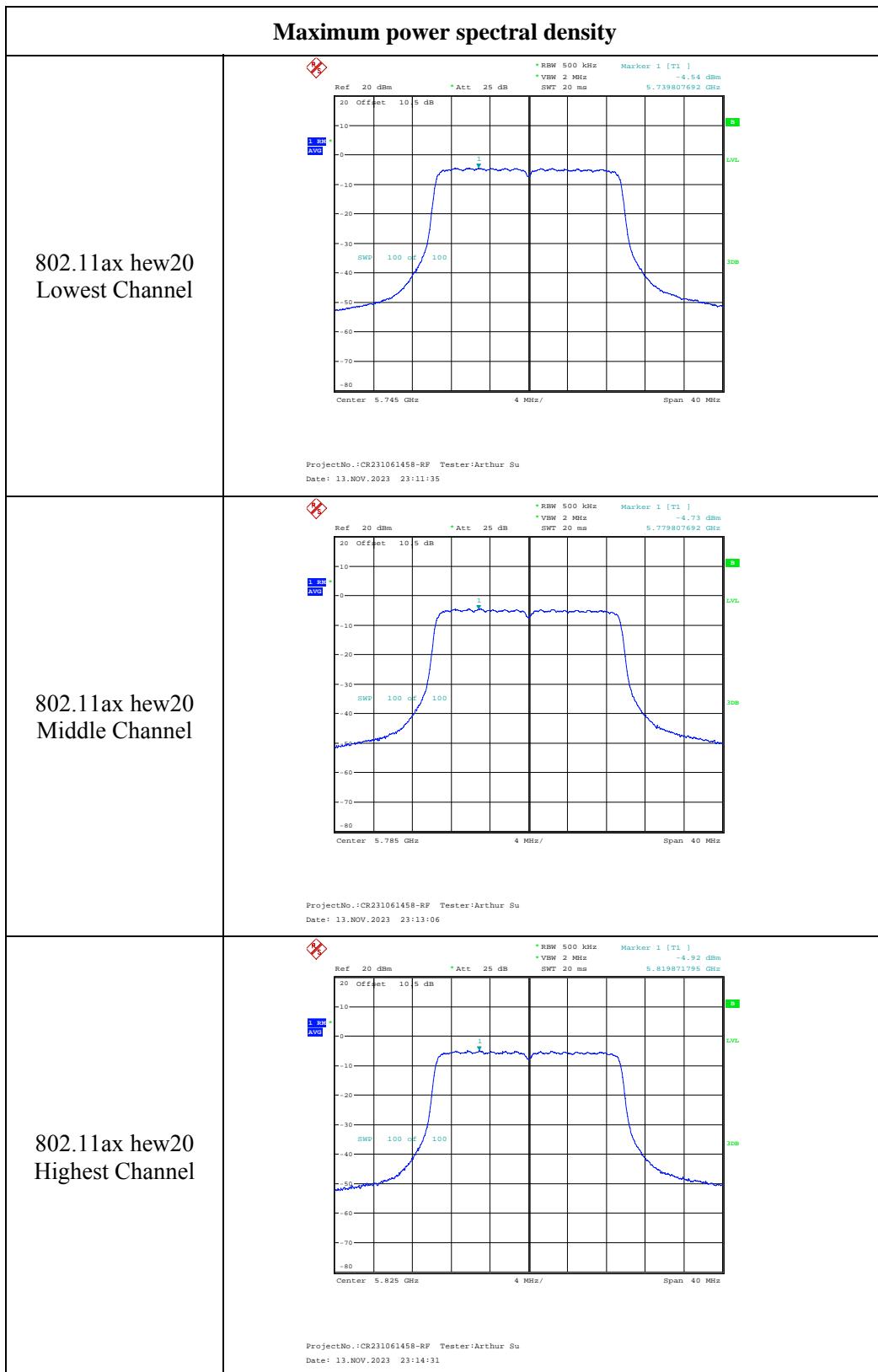


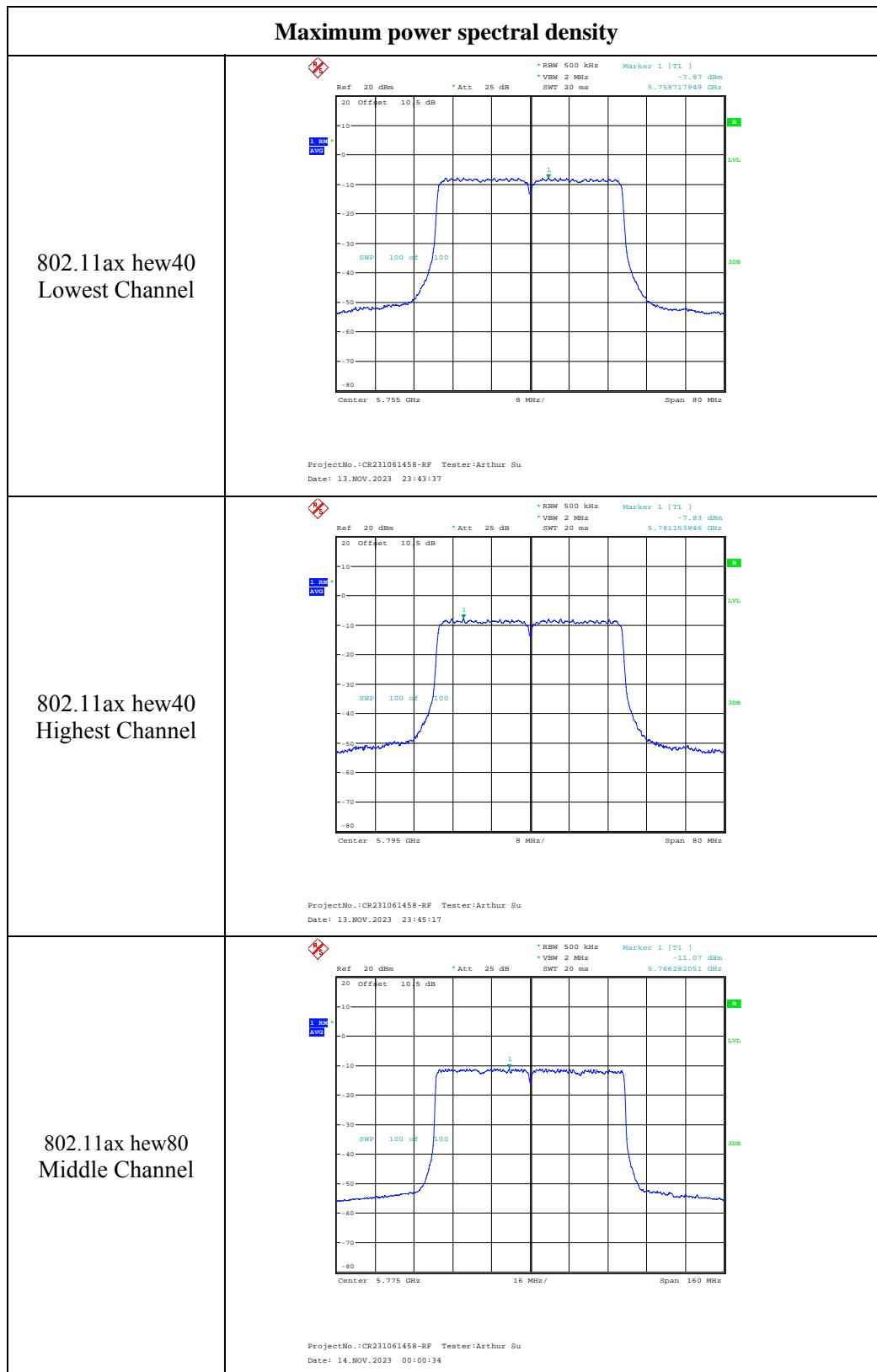


5725-5850MHz

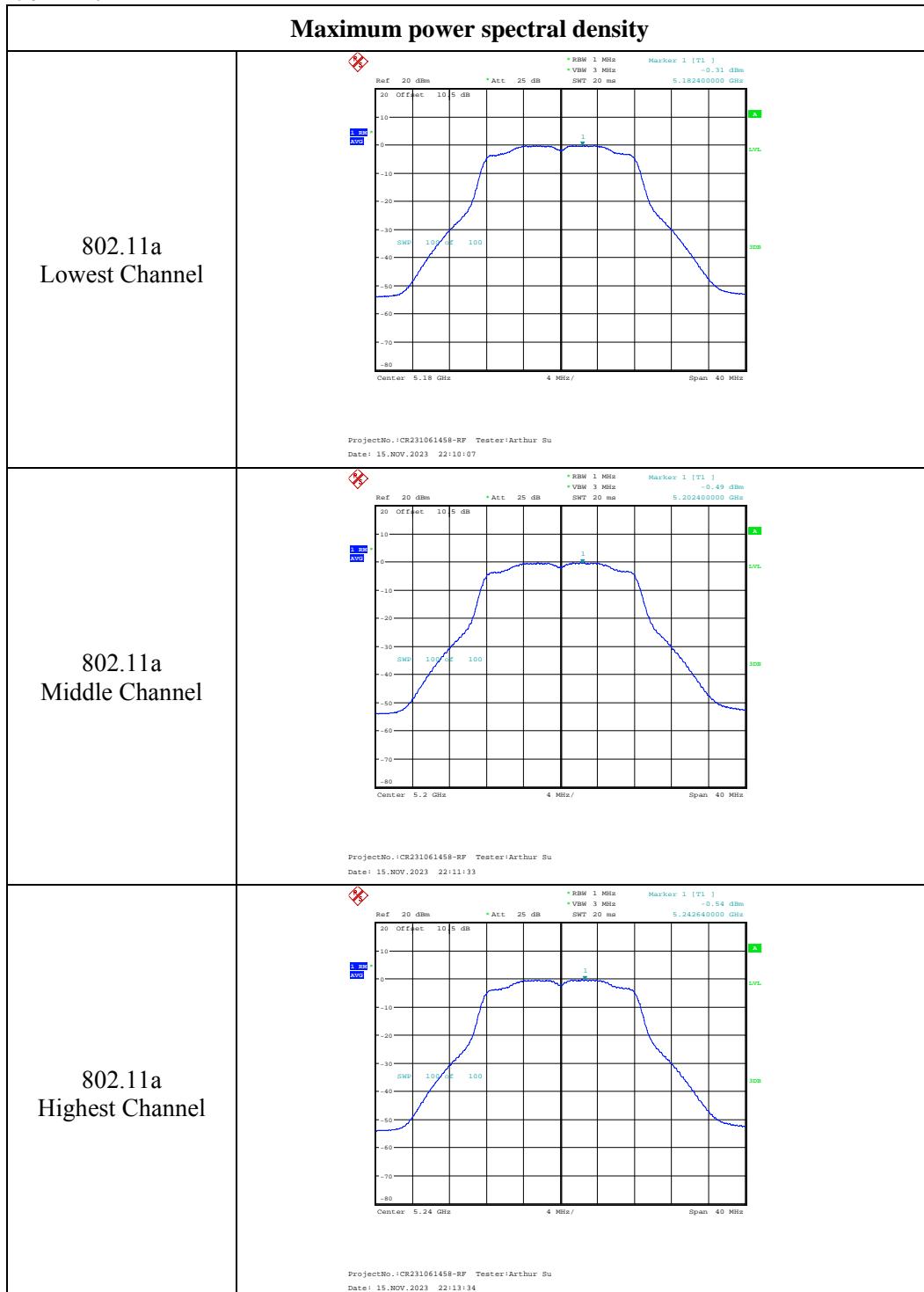


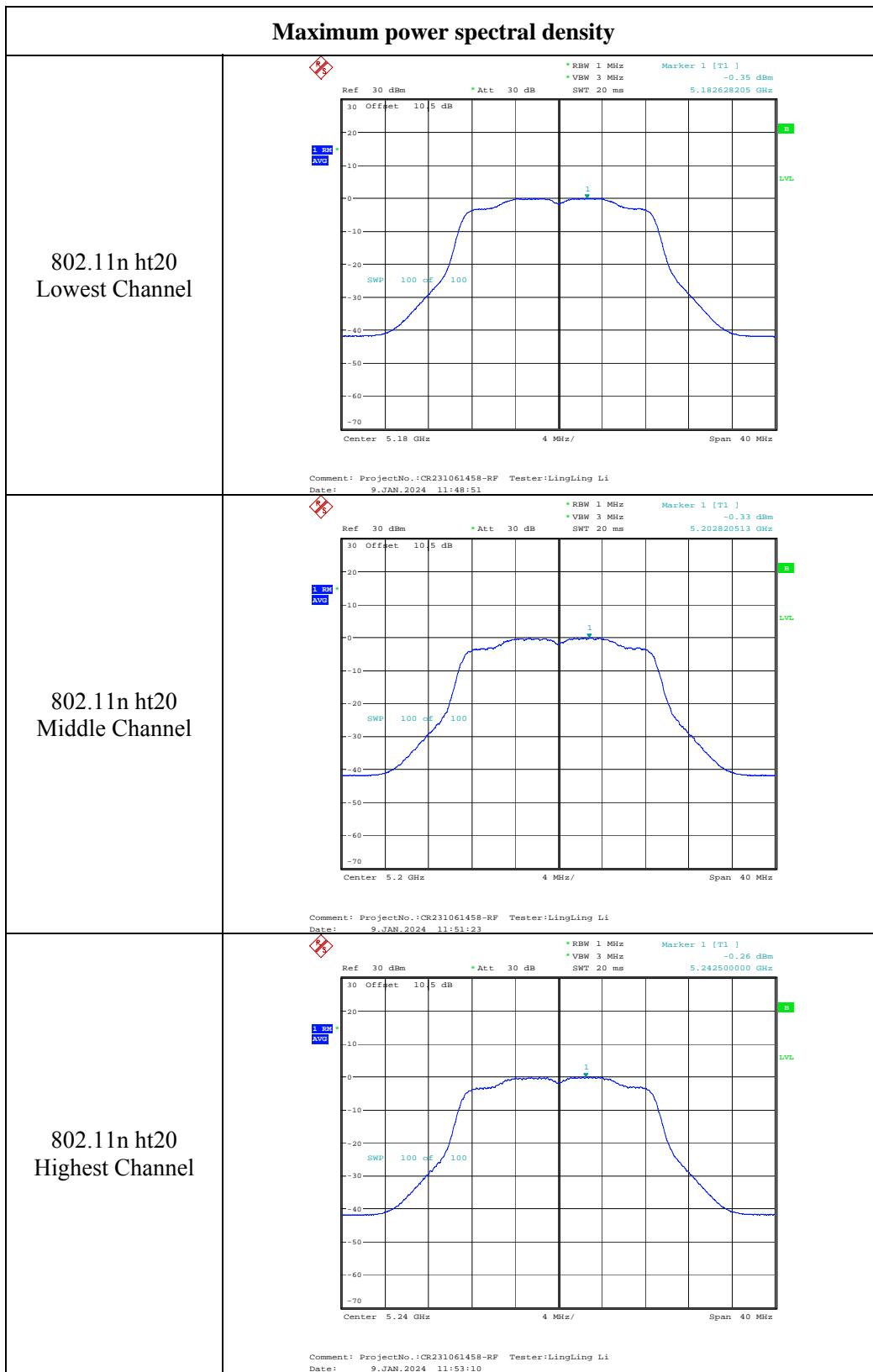


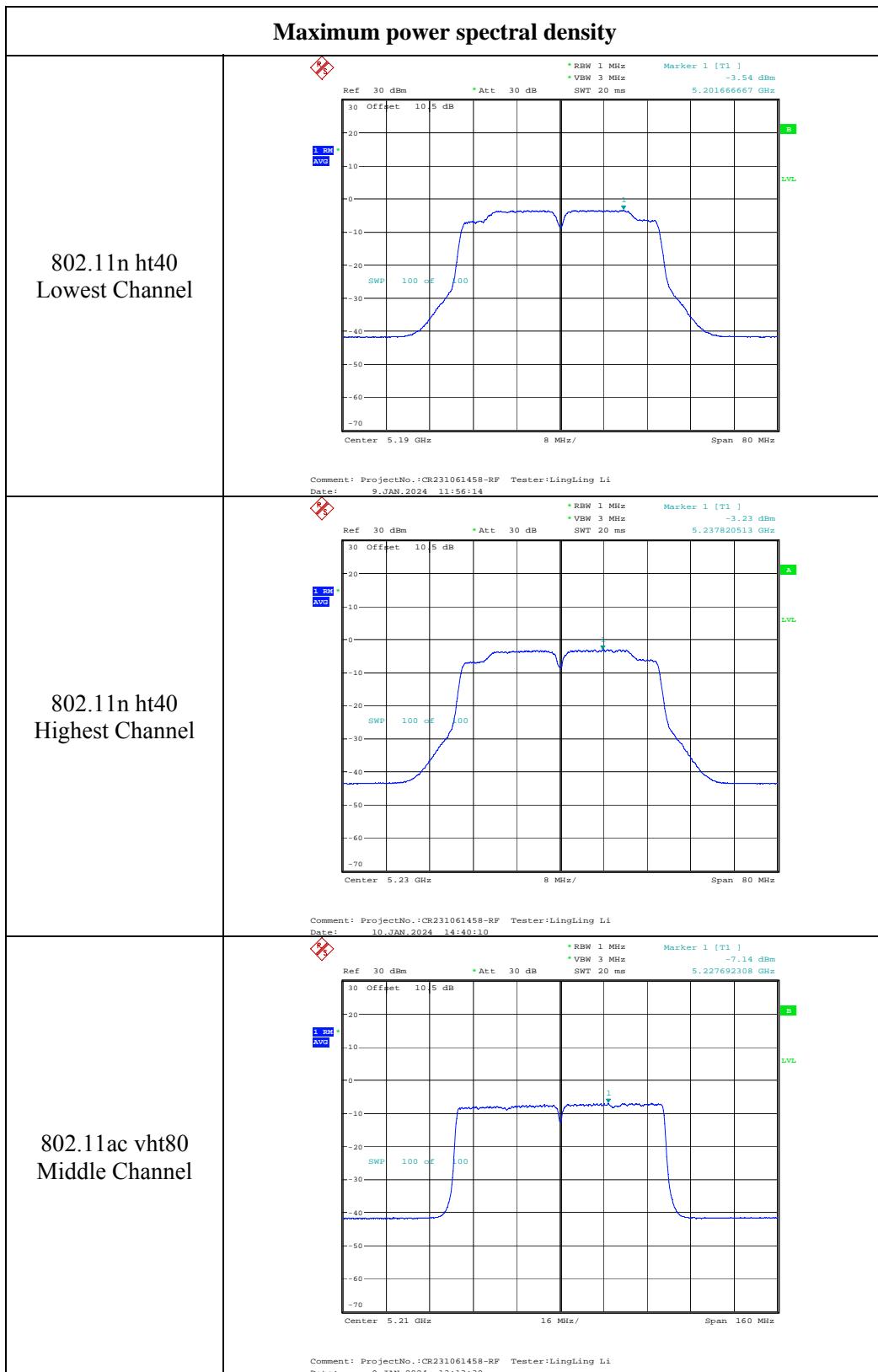


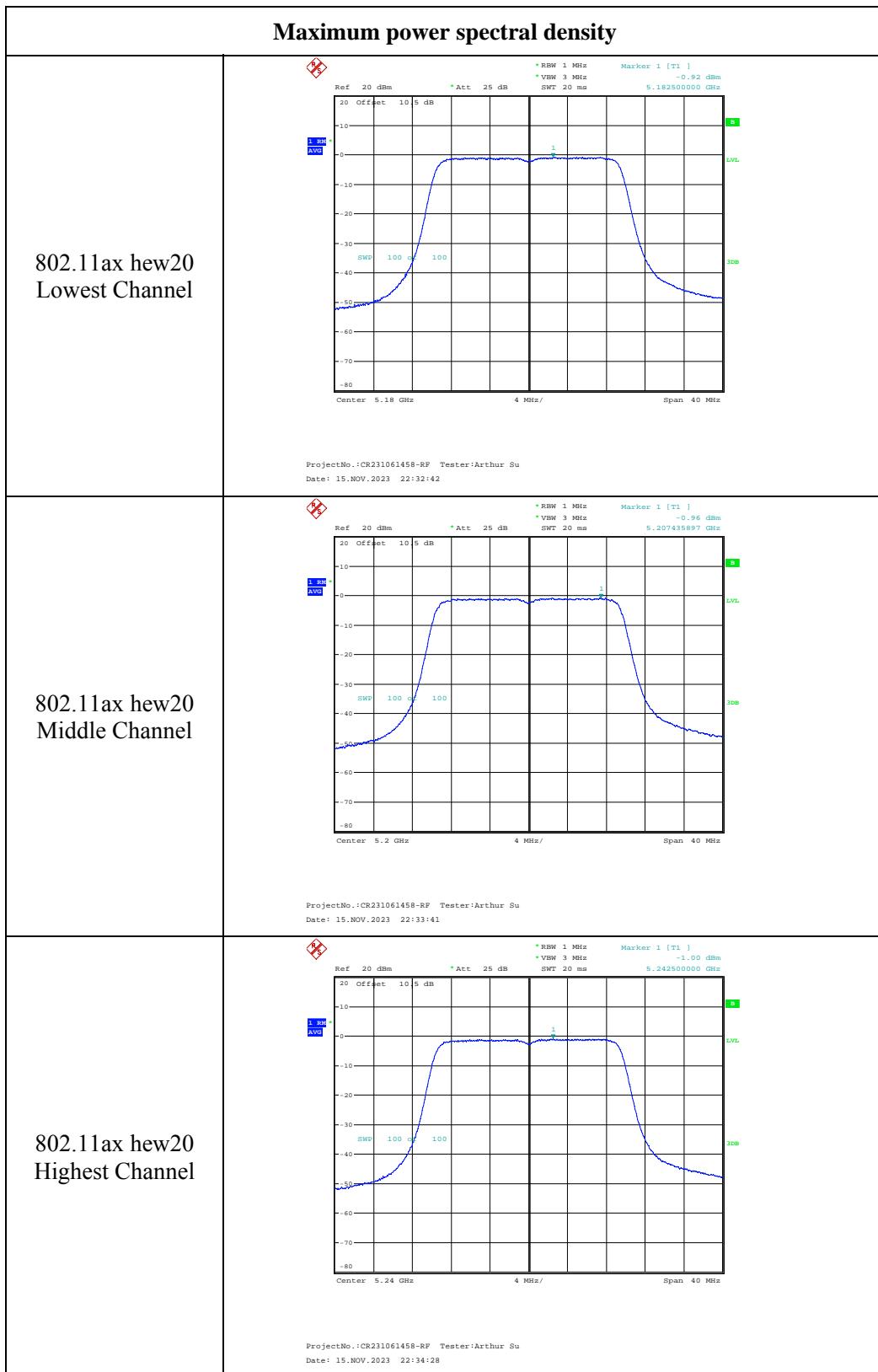


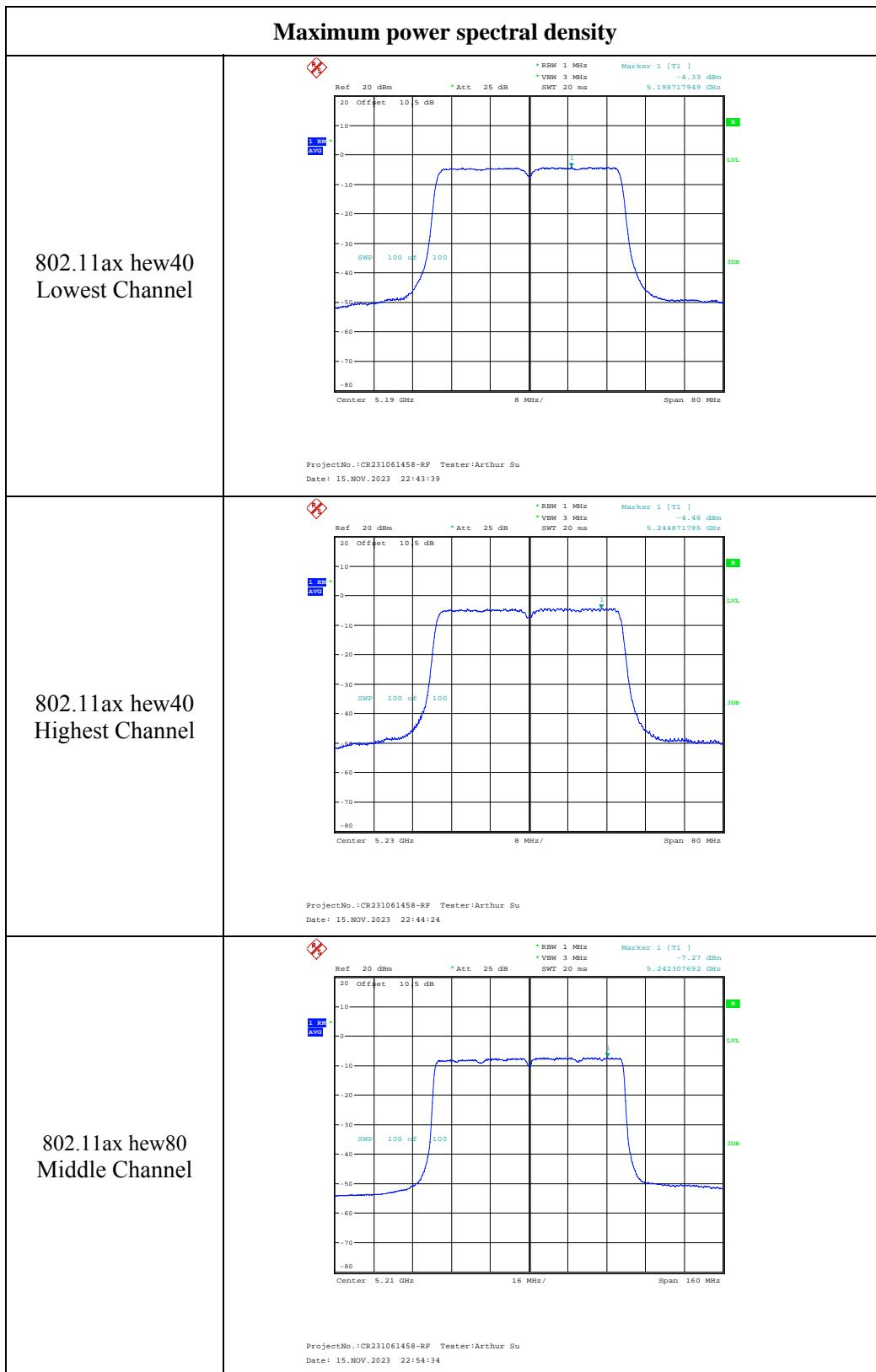
**Chain 1:
5150-5250MHz:**

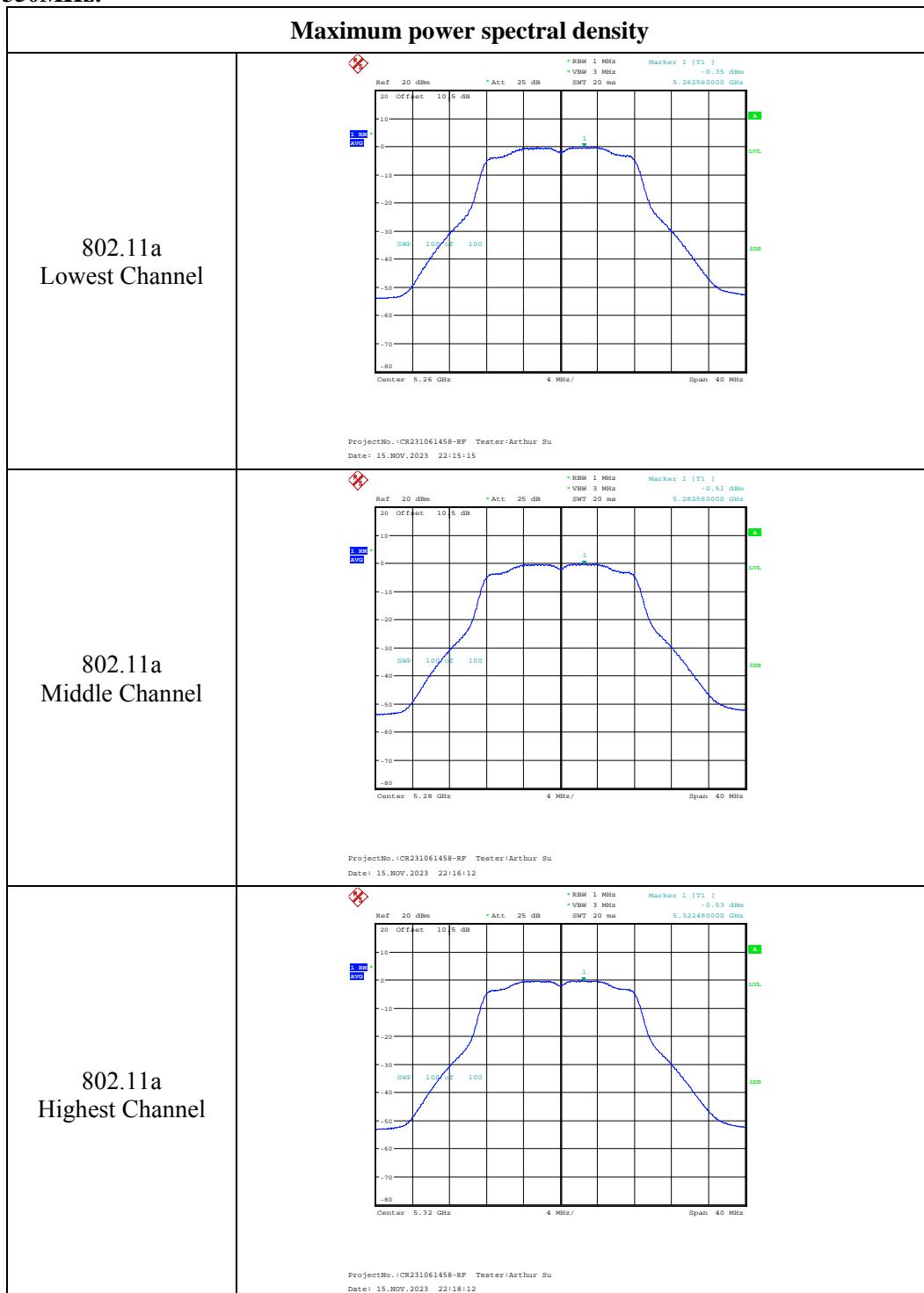


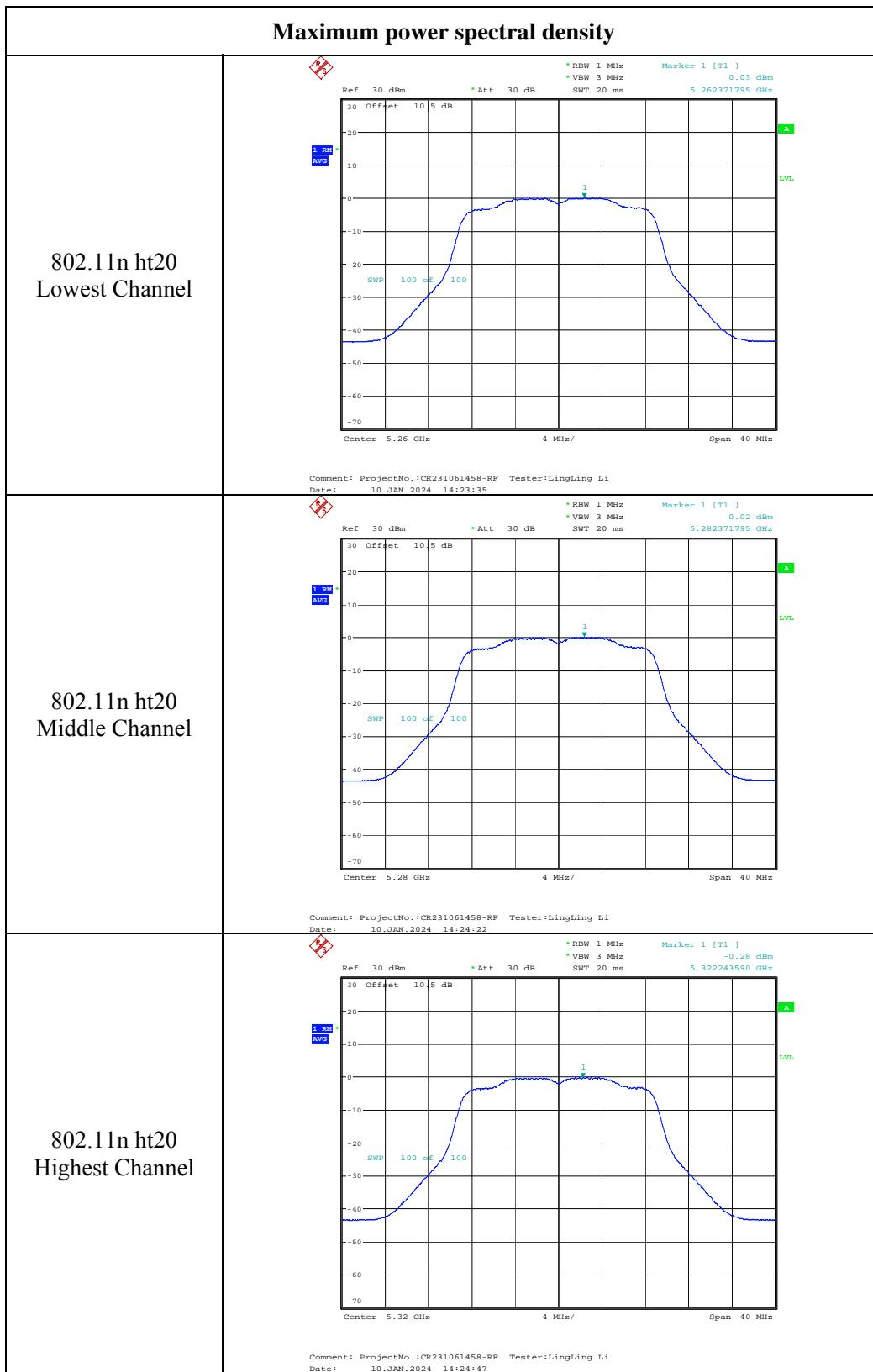


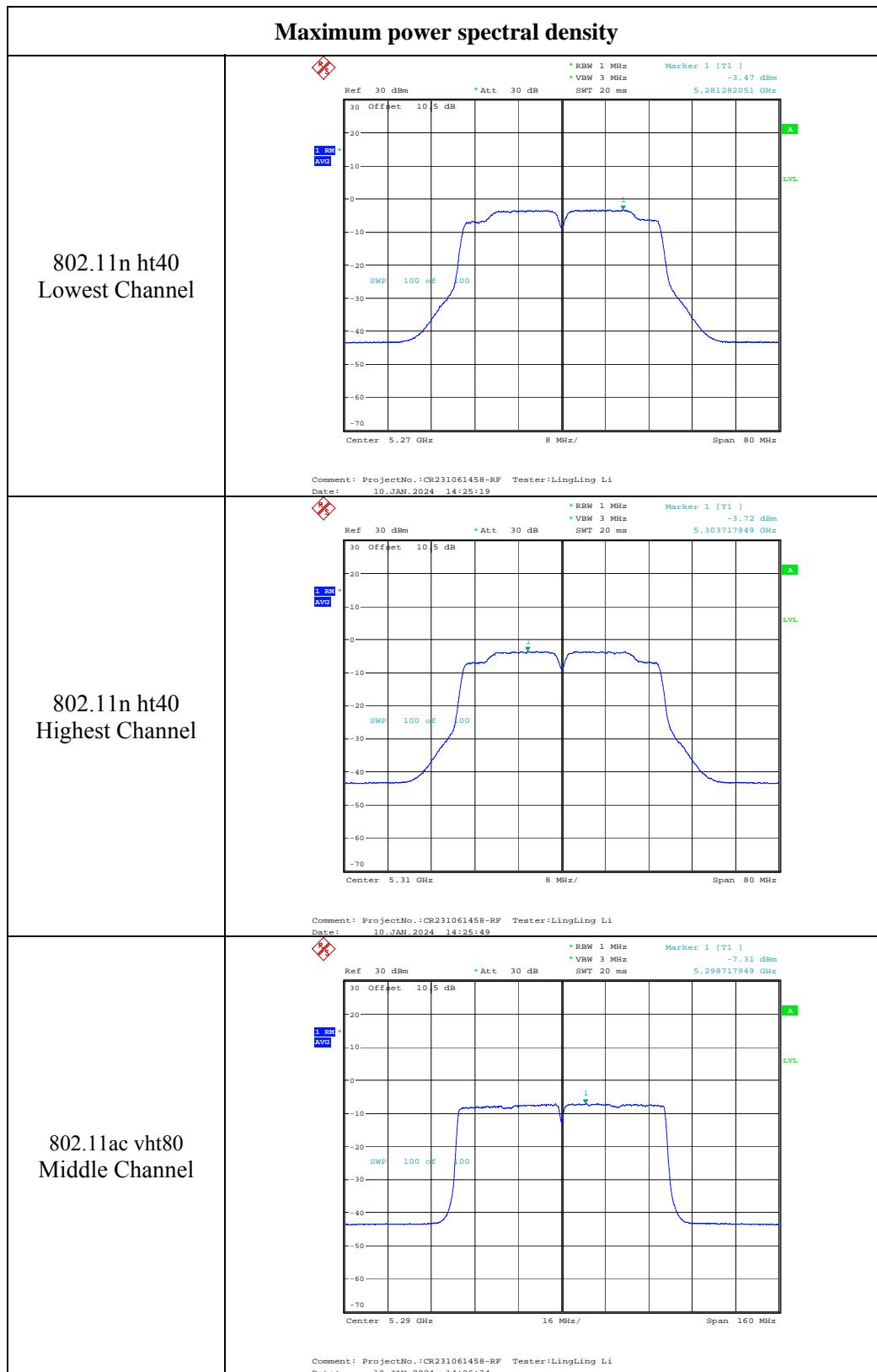


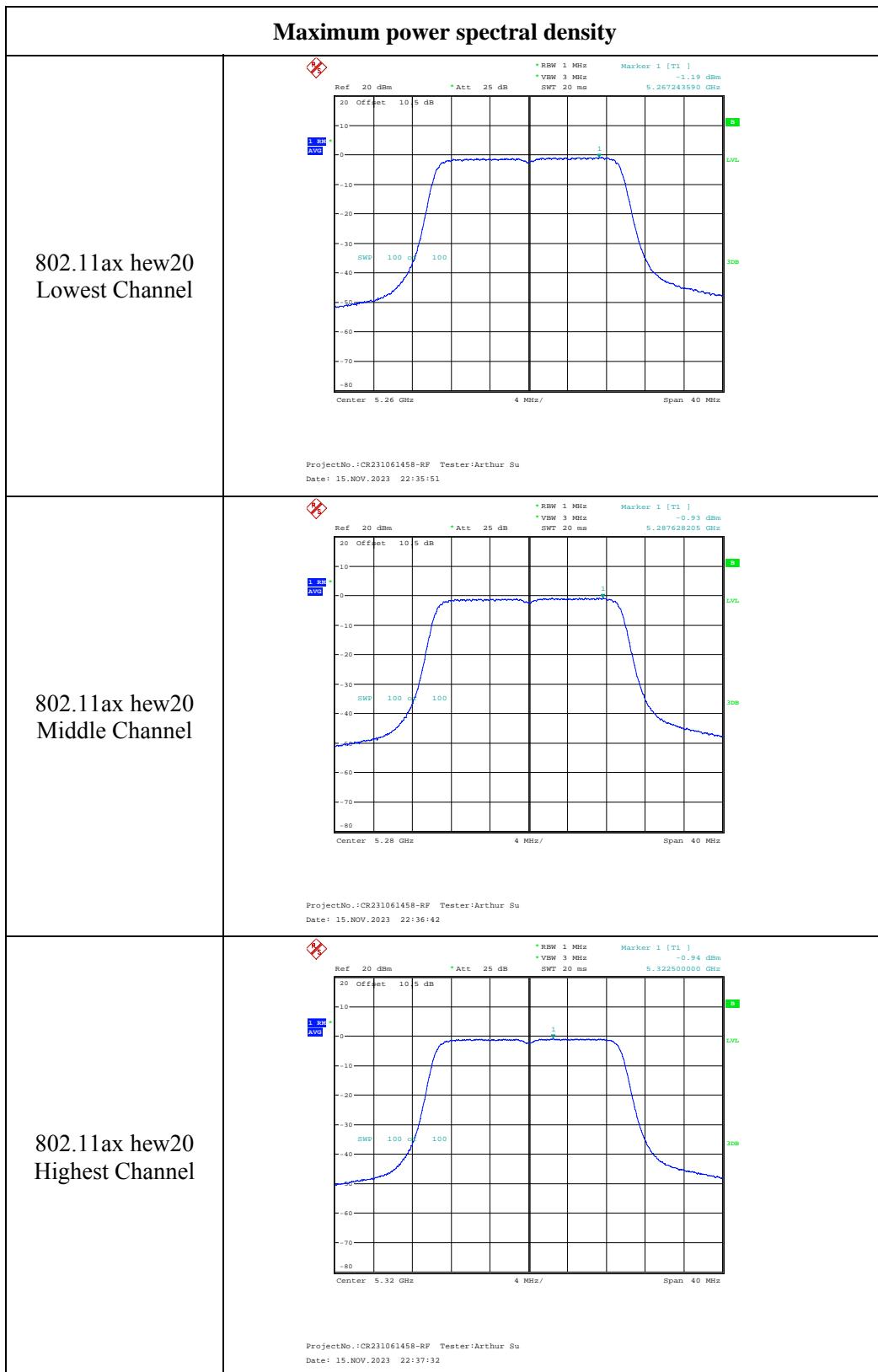


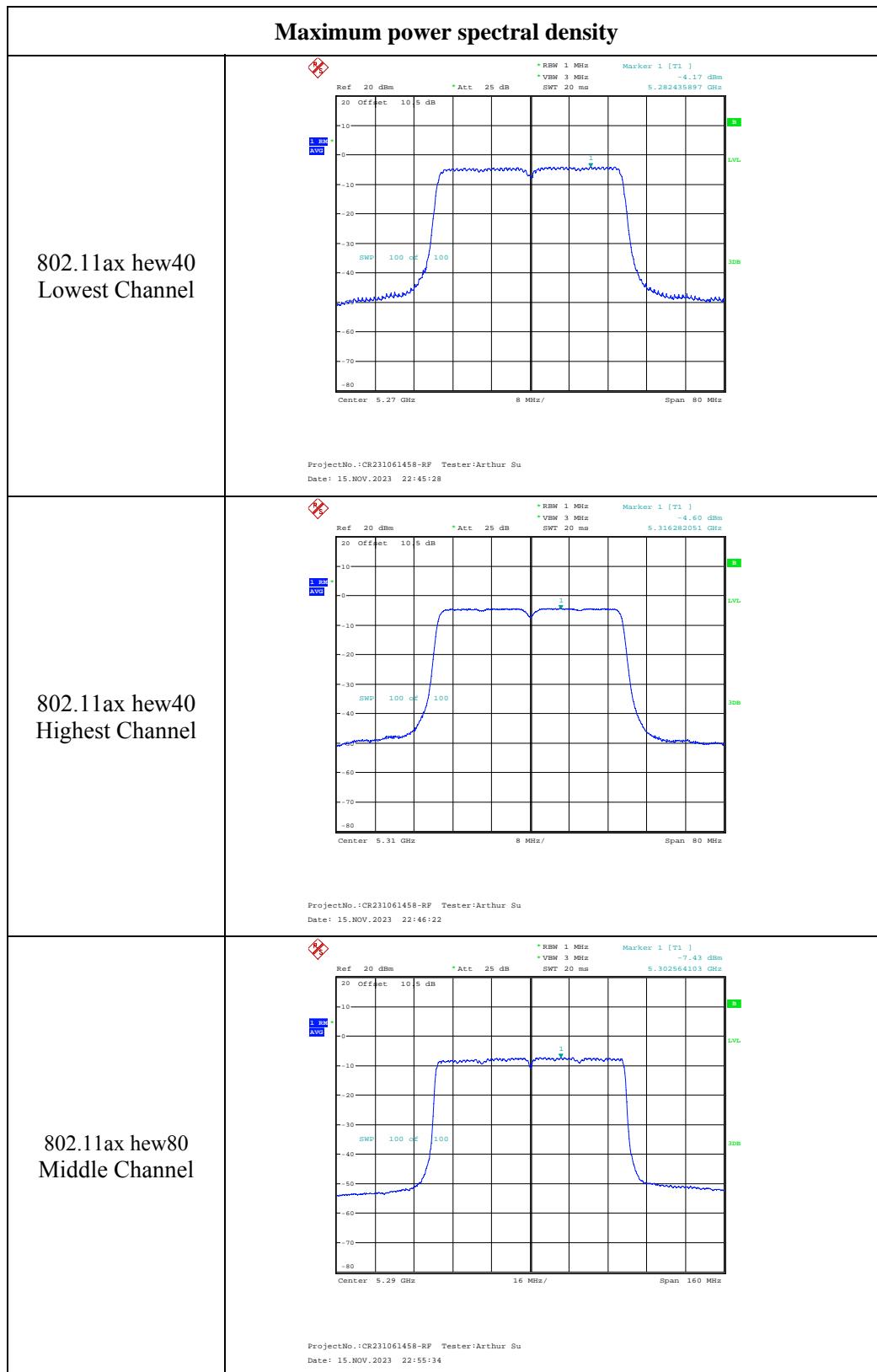


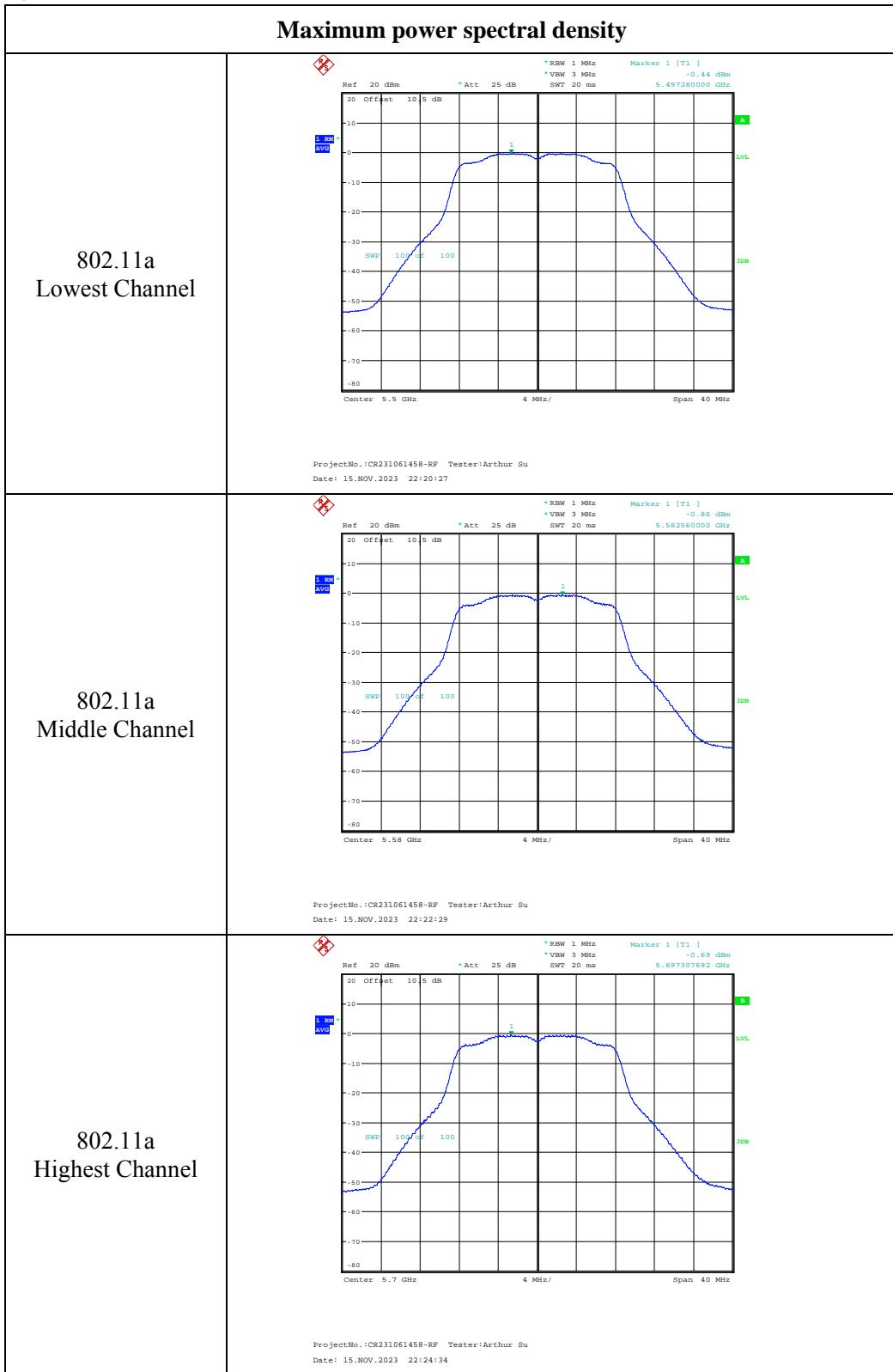
5250-5350MHz:



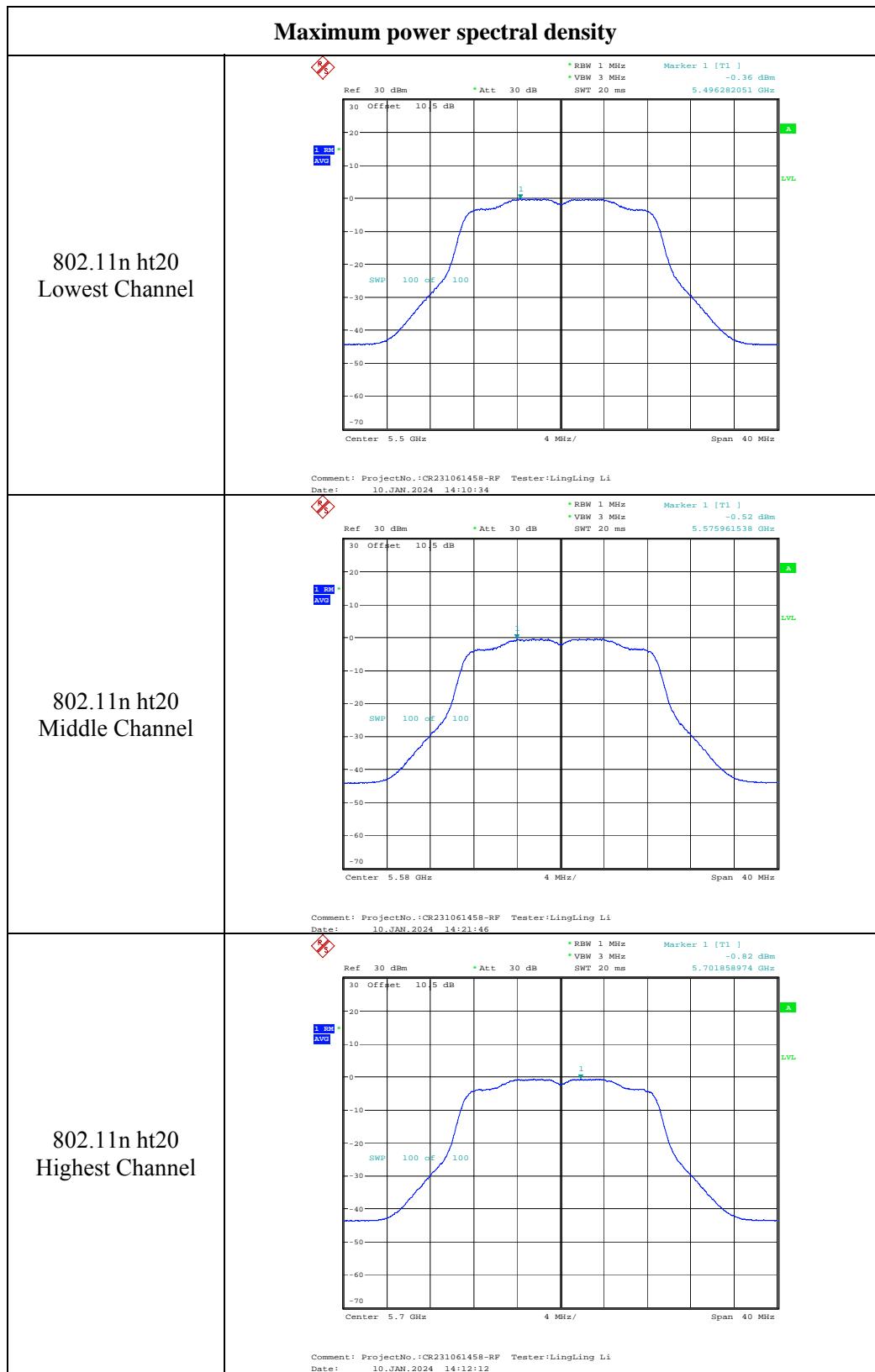




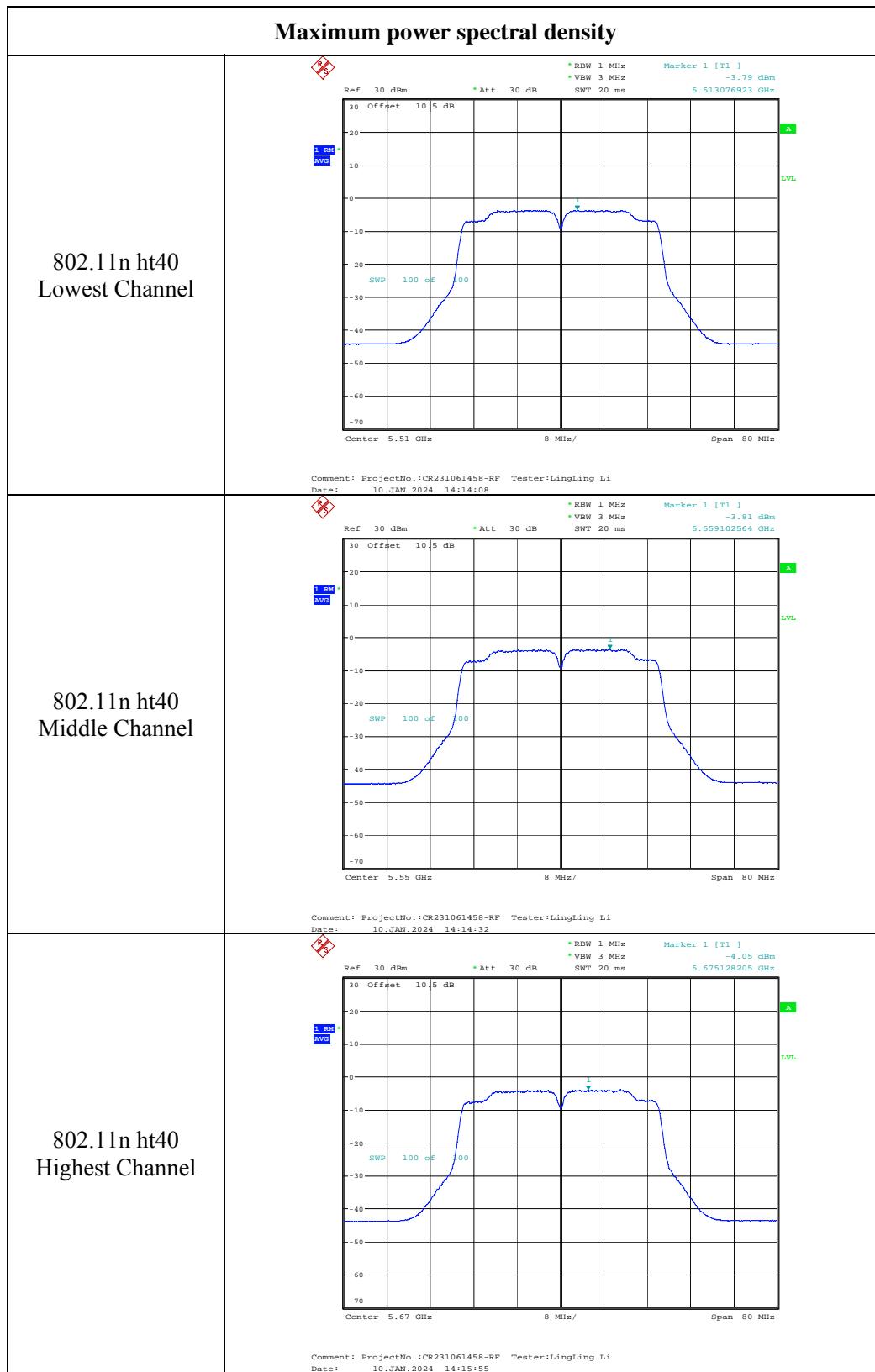


5470-5725MHz

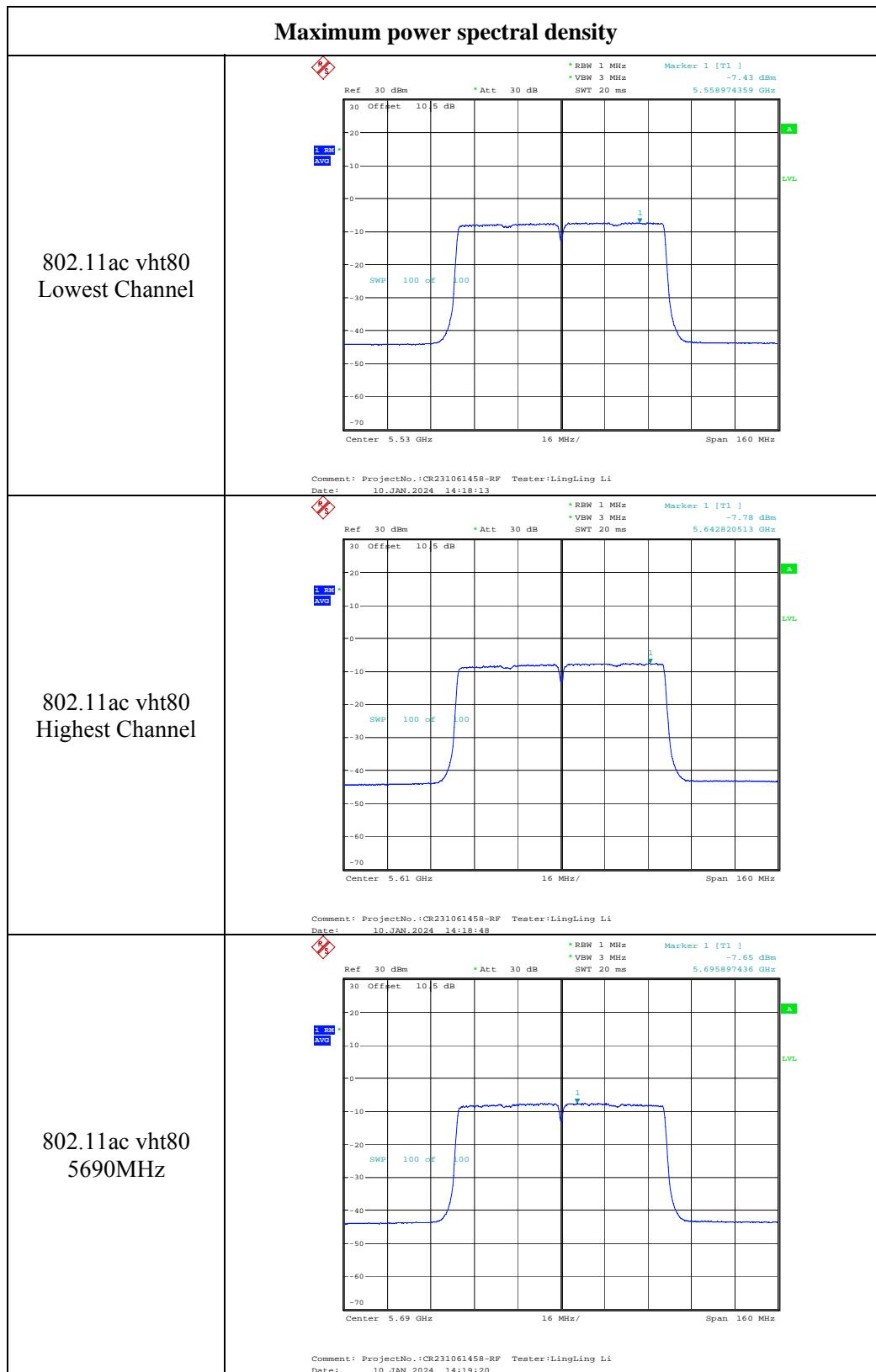


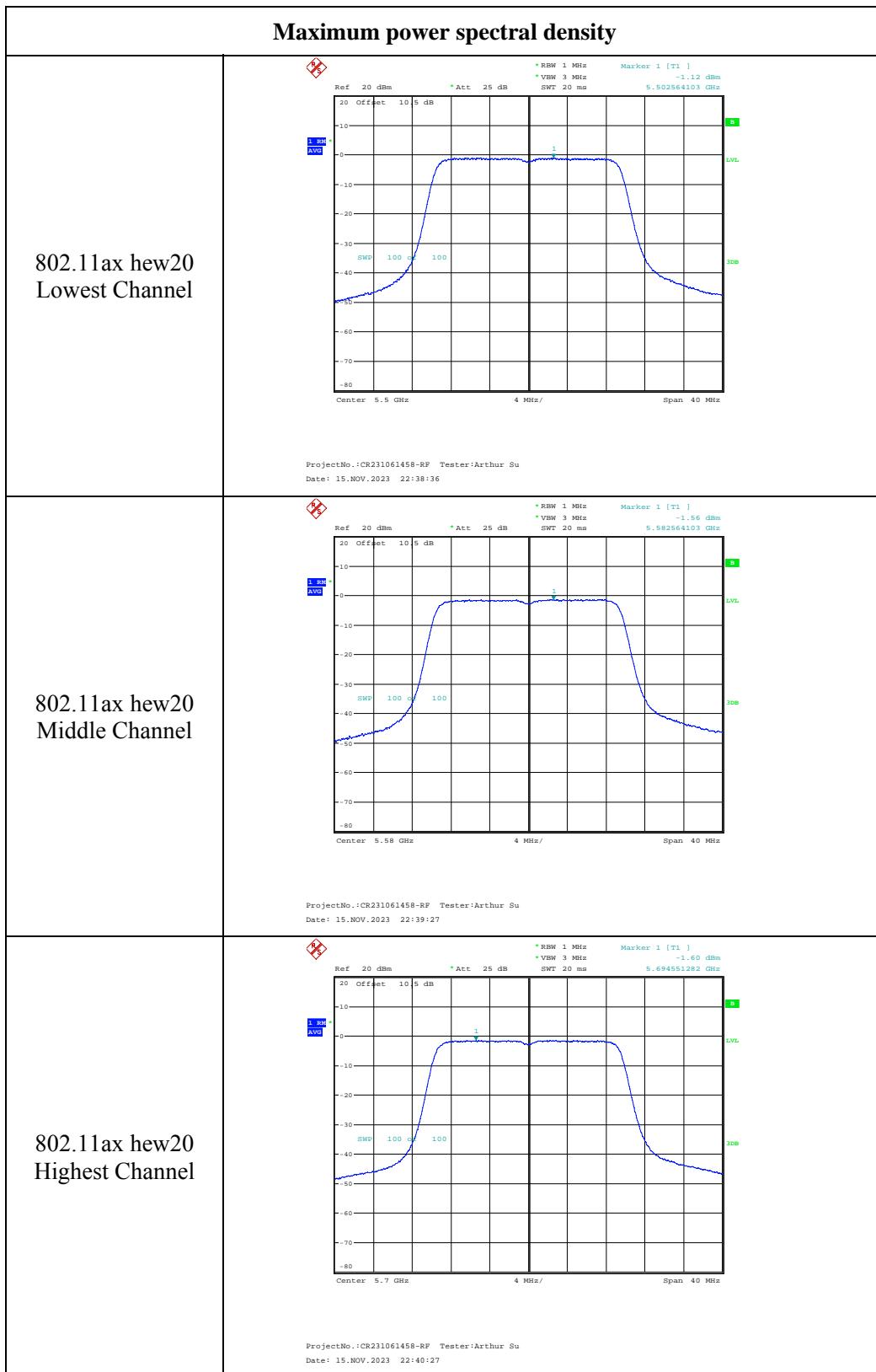


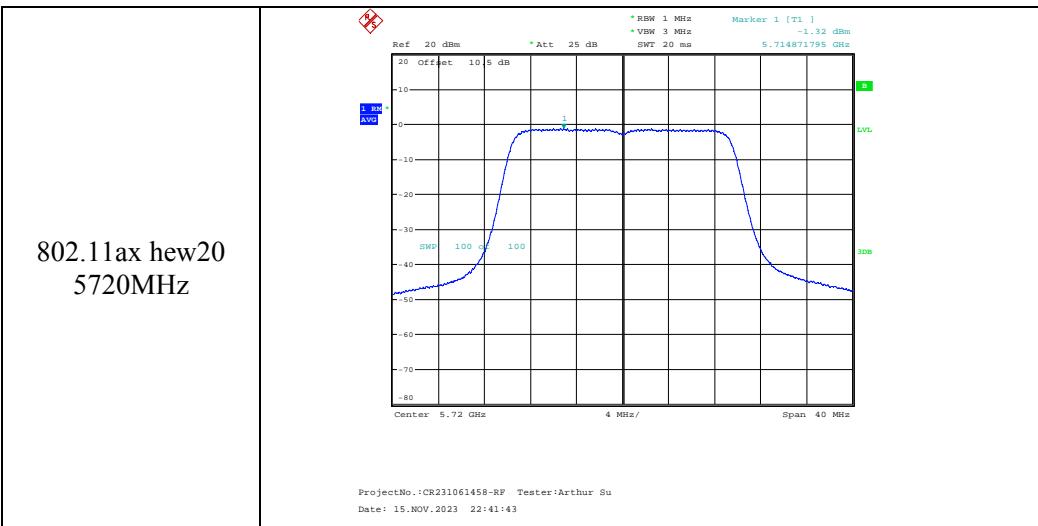


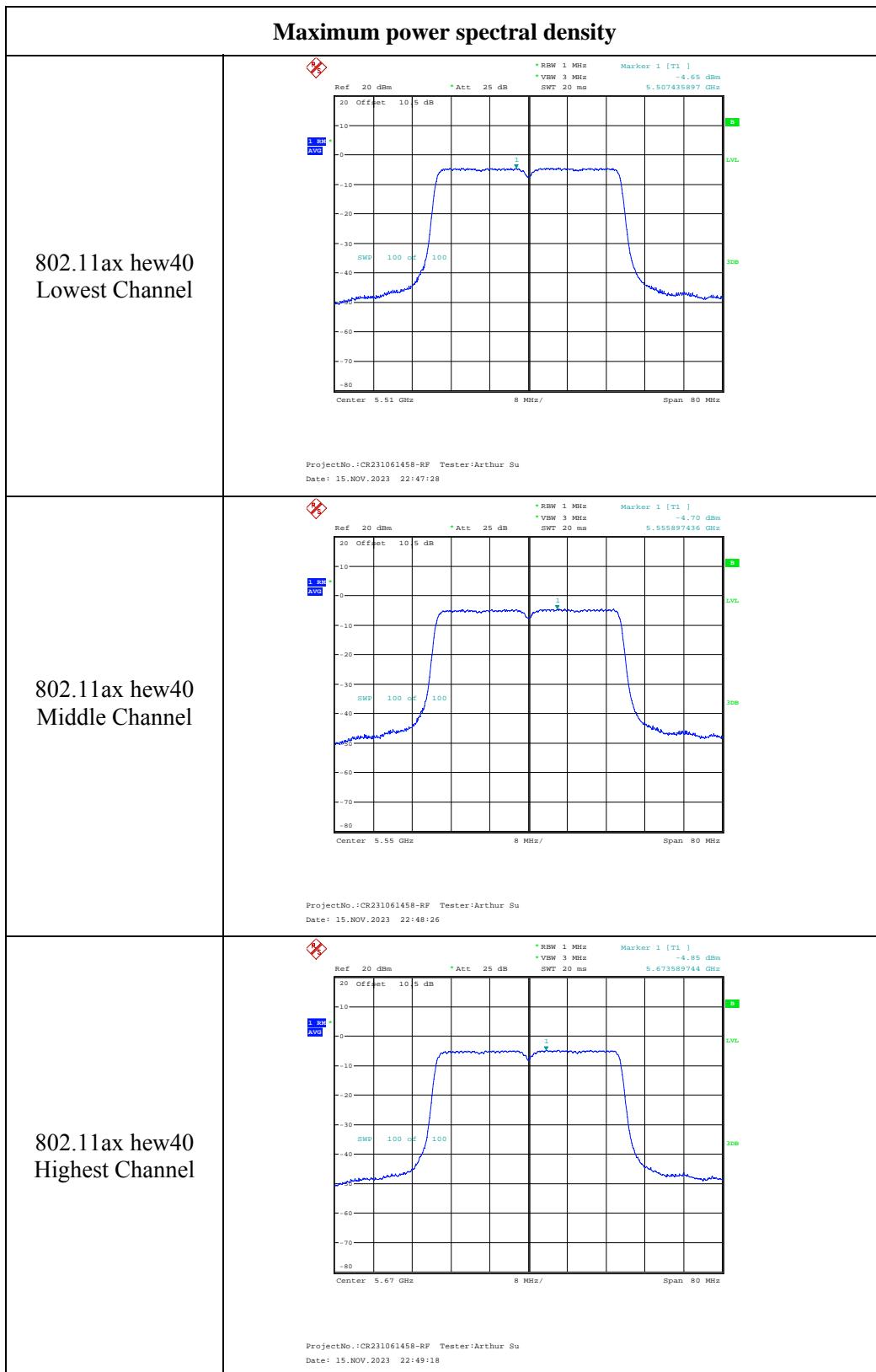


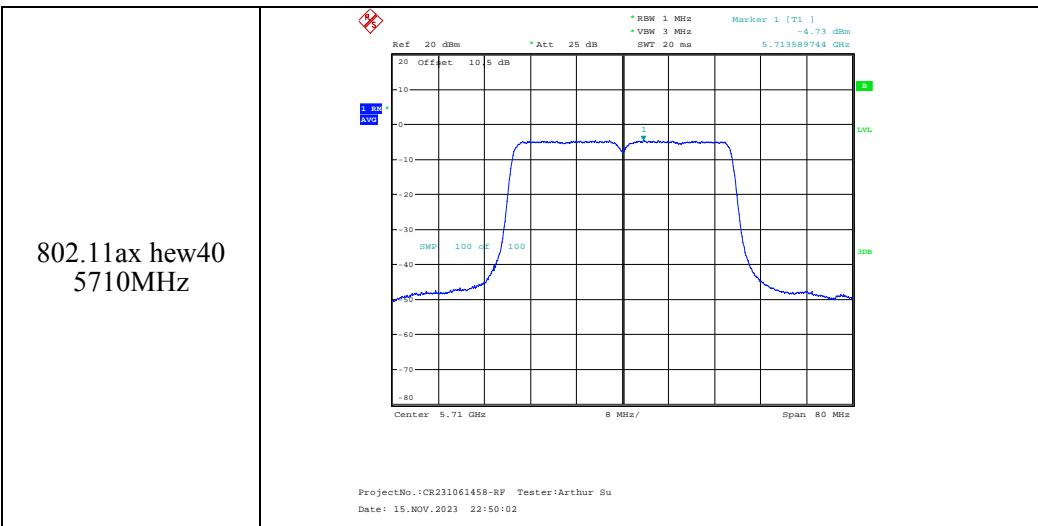


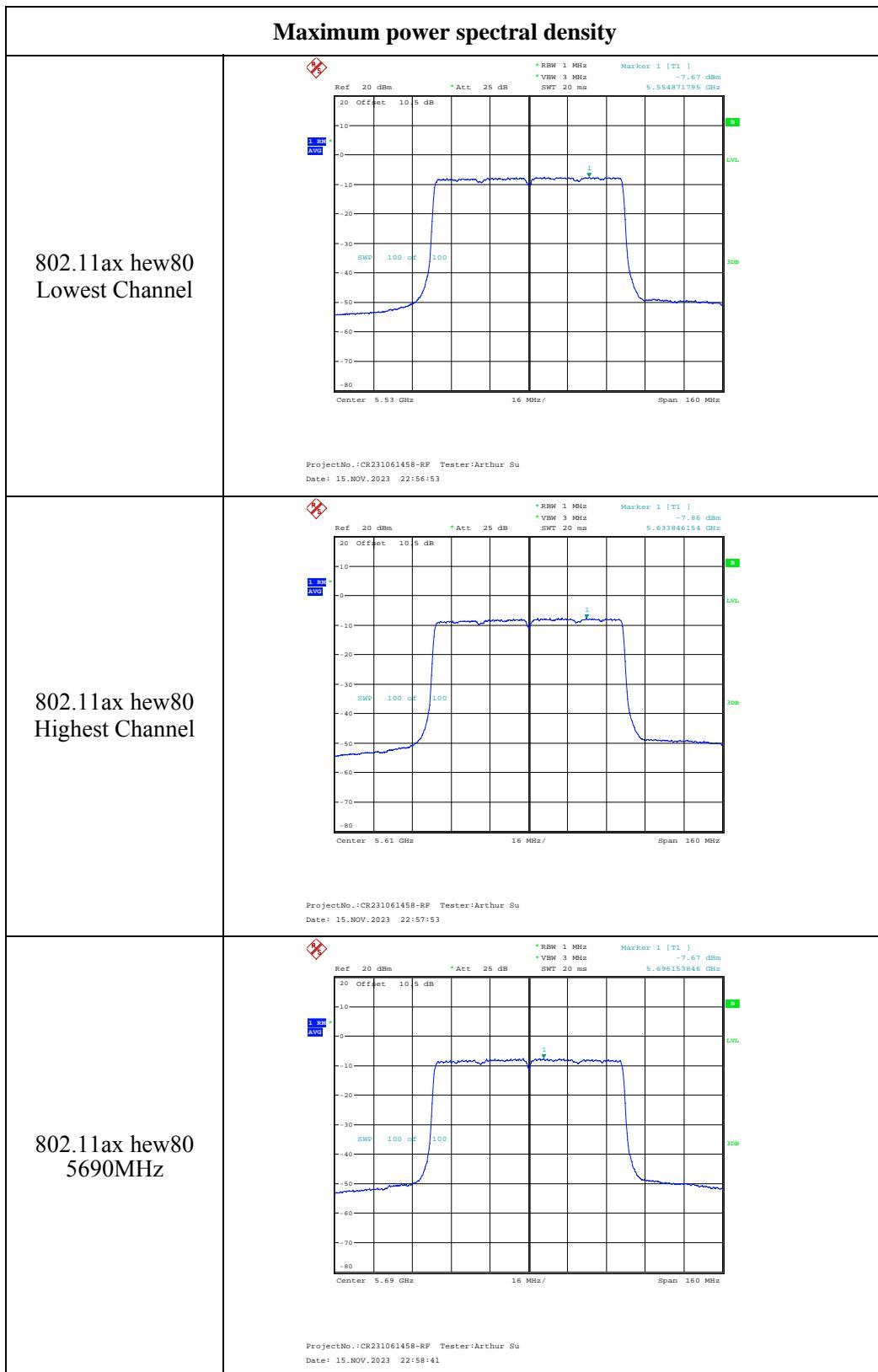


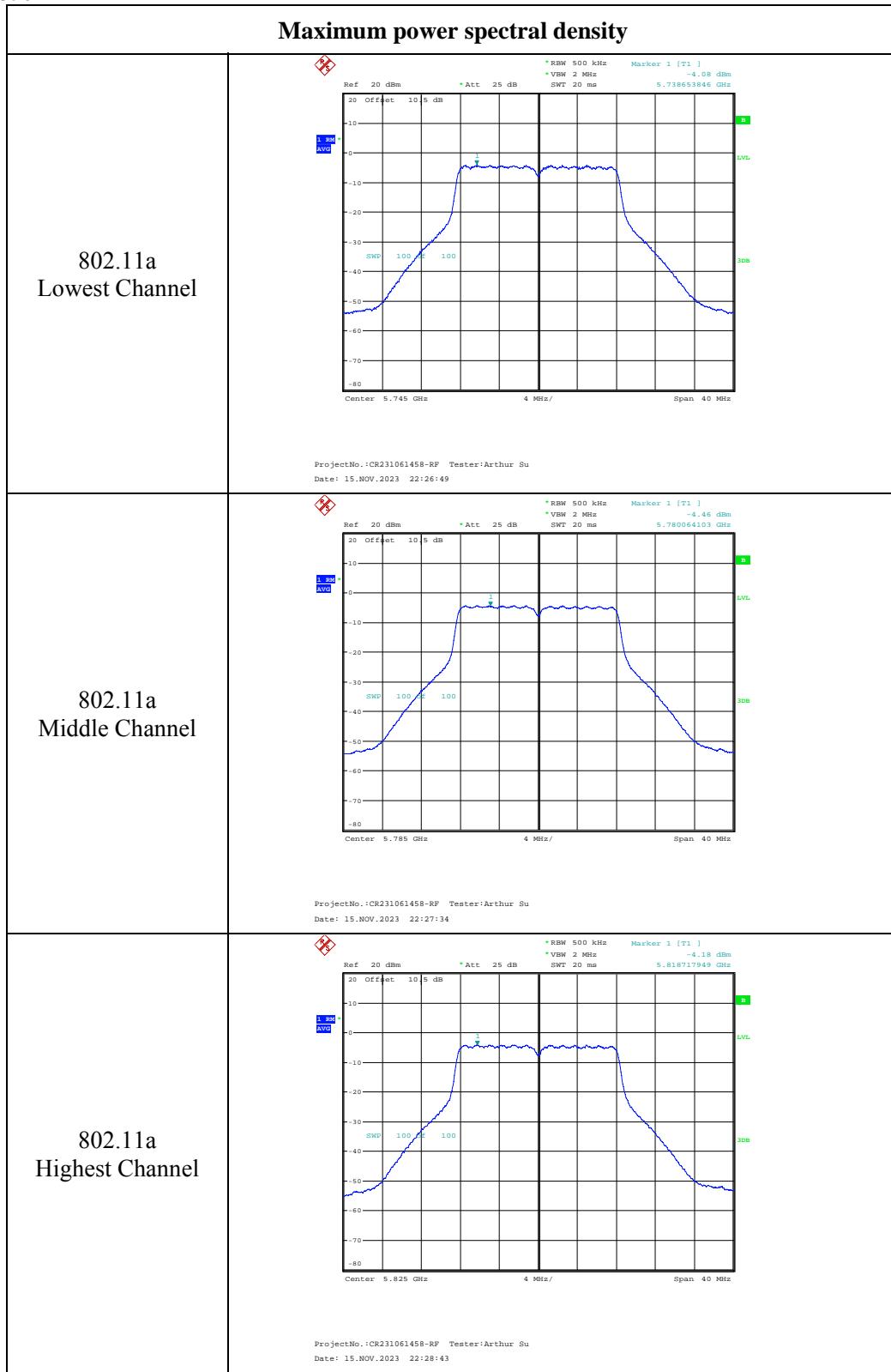


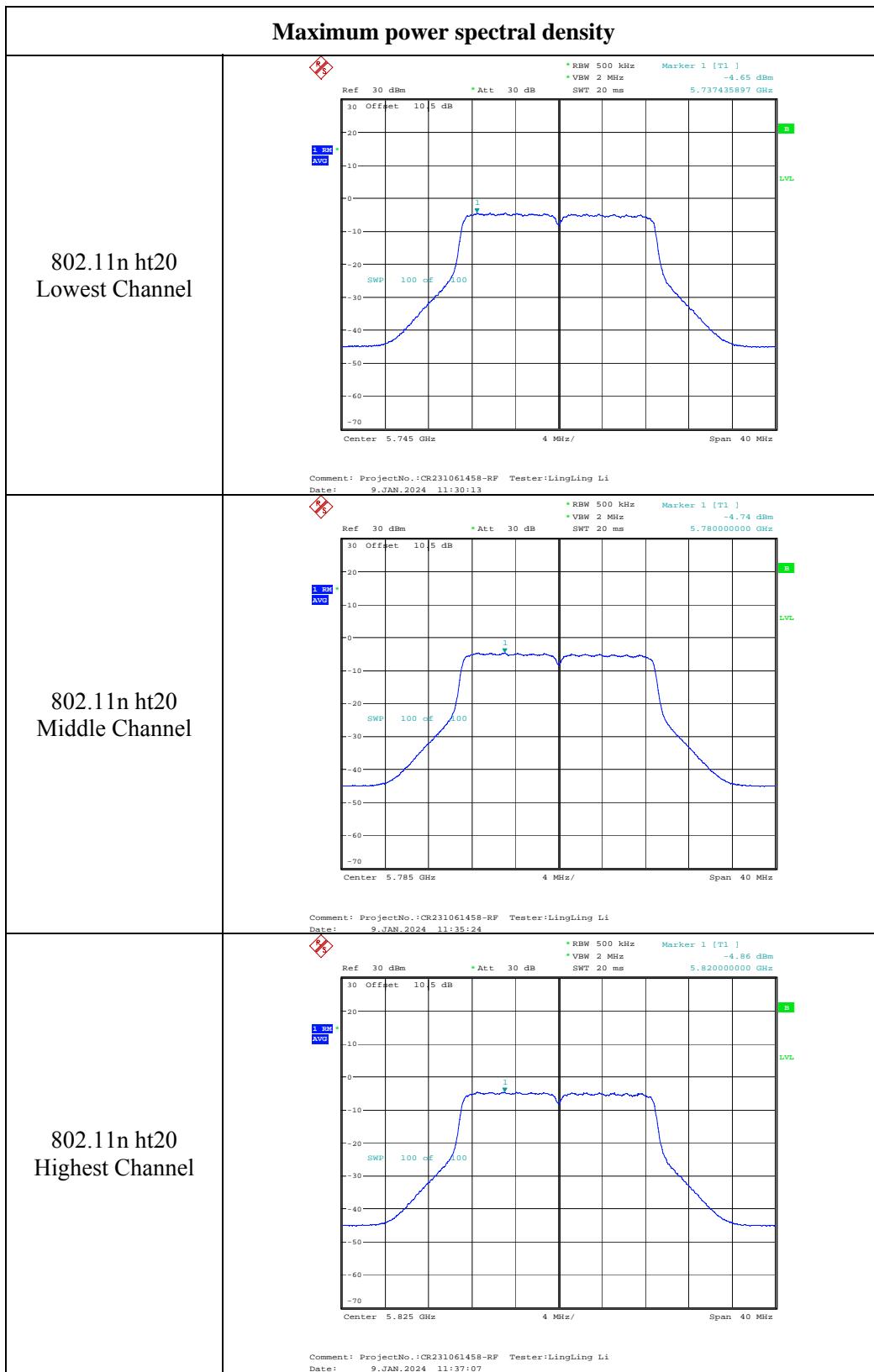


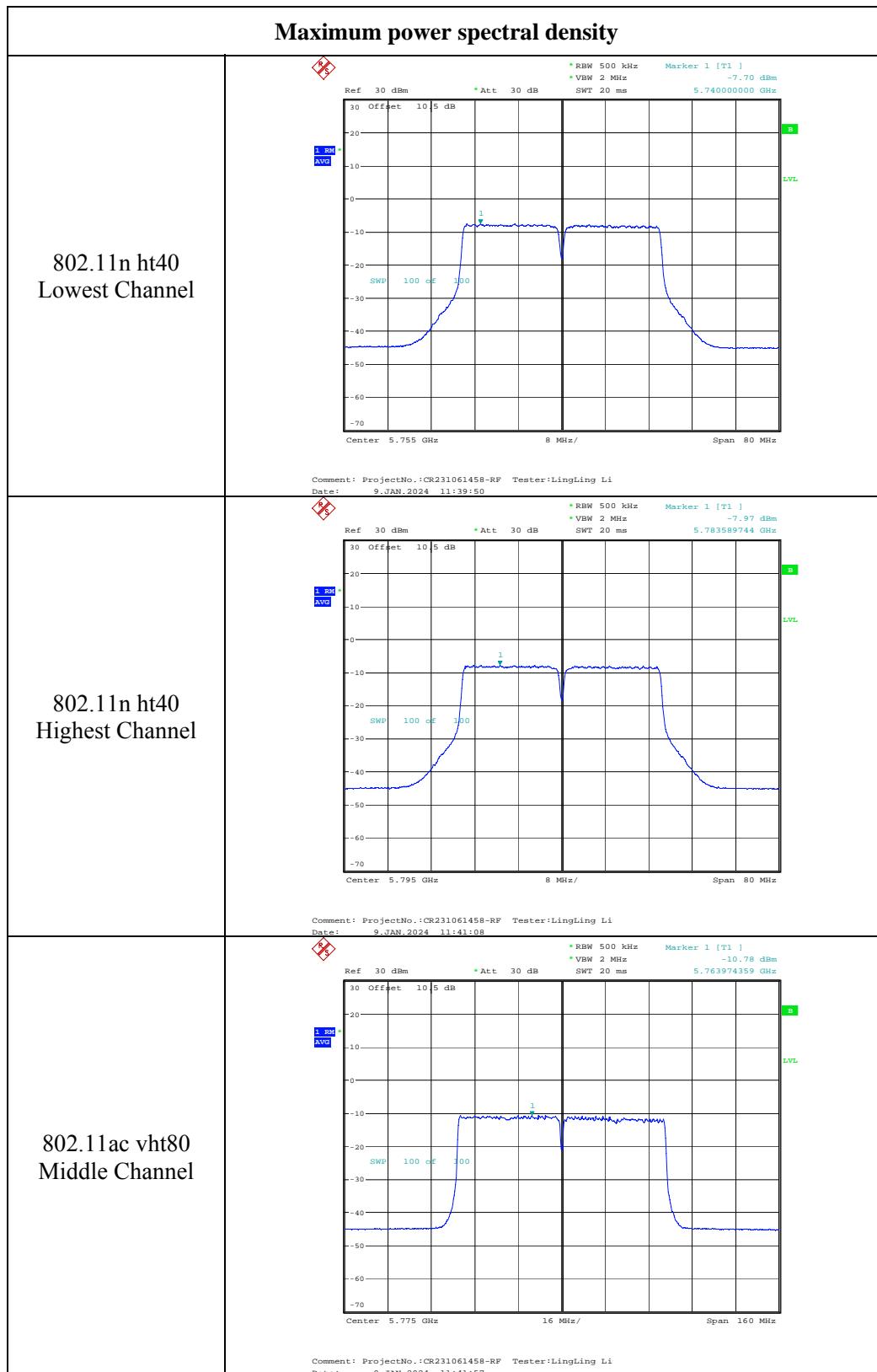


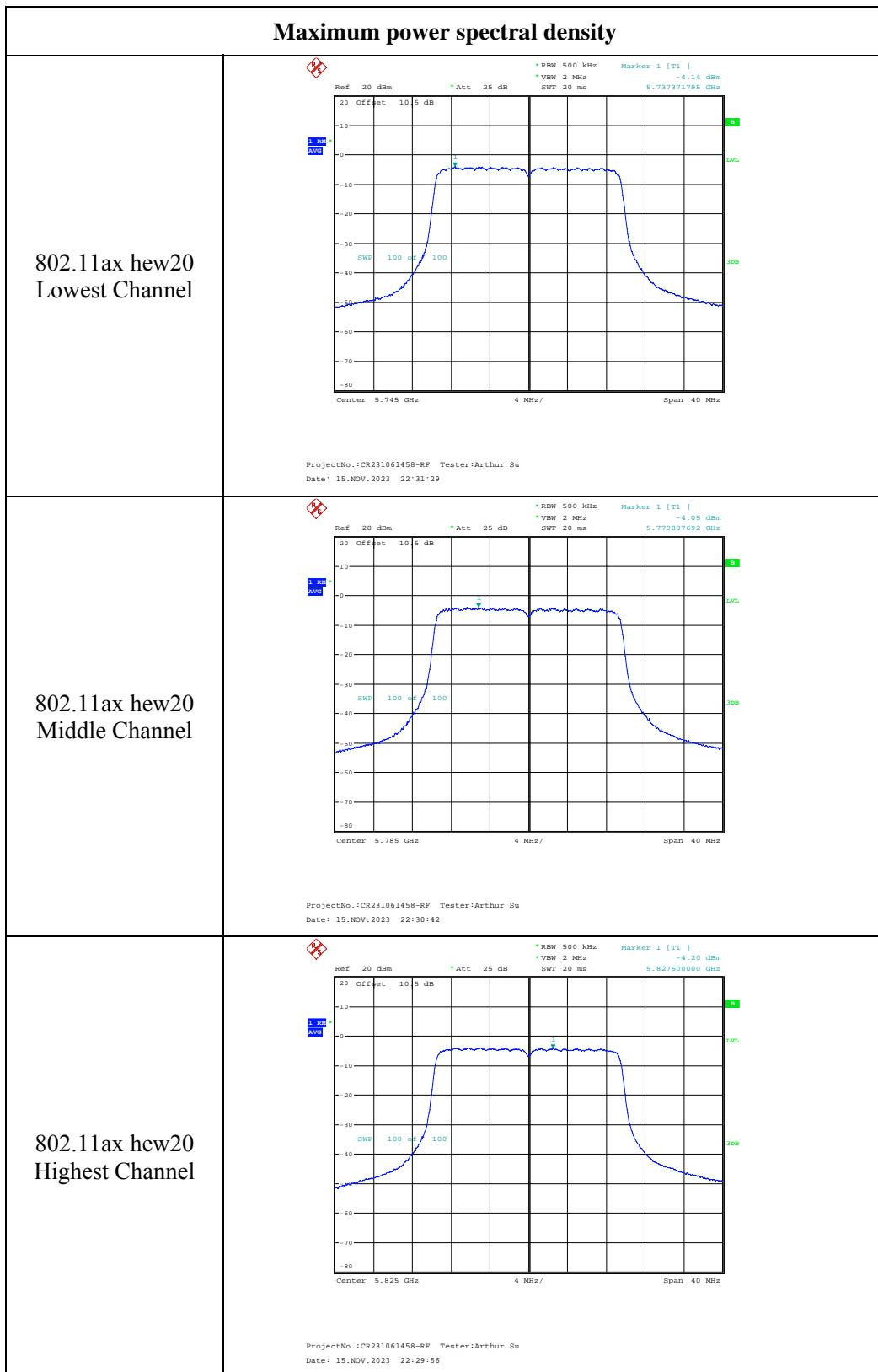


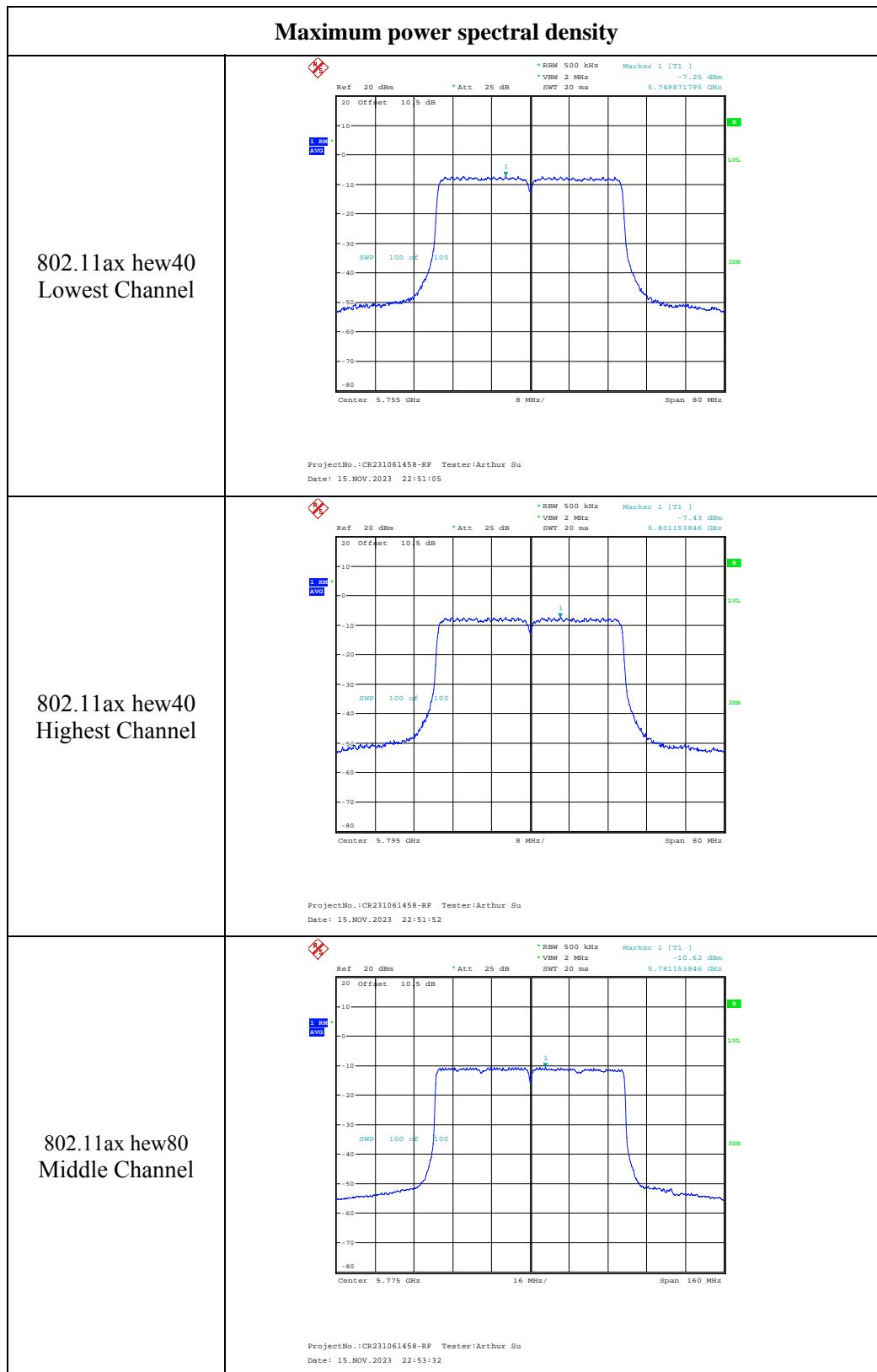


5725-5850MHz









4.6 Duty Cycle

Serial Number:	2CHV-2	Test Date:	2023/11/13-2024/1/10
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su/Ling Ling Li	Test Result:	N/A

Environmental Conditions:

Temperature: (°C)	24.5-26.1	Relative Humidity: (%)	45-58	ATM Pressure: (kPa)	100.7-101.4
----------------------	-----------	---------------------------	-------	------------------------	-------------

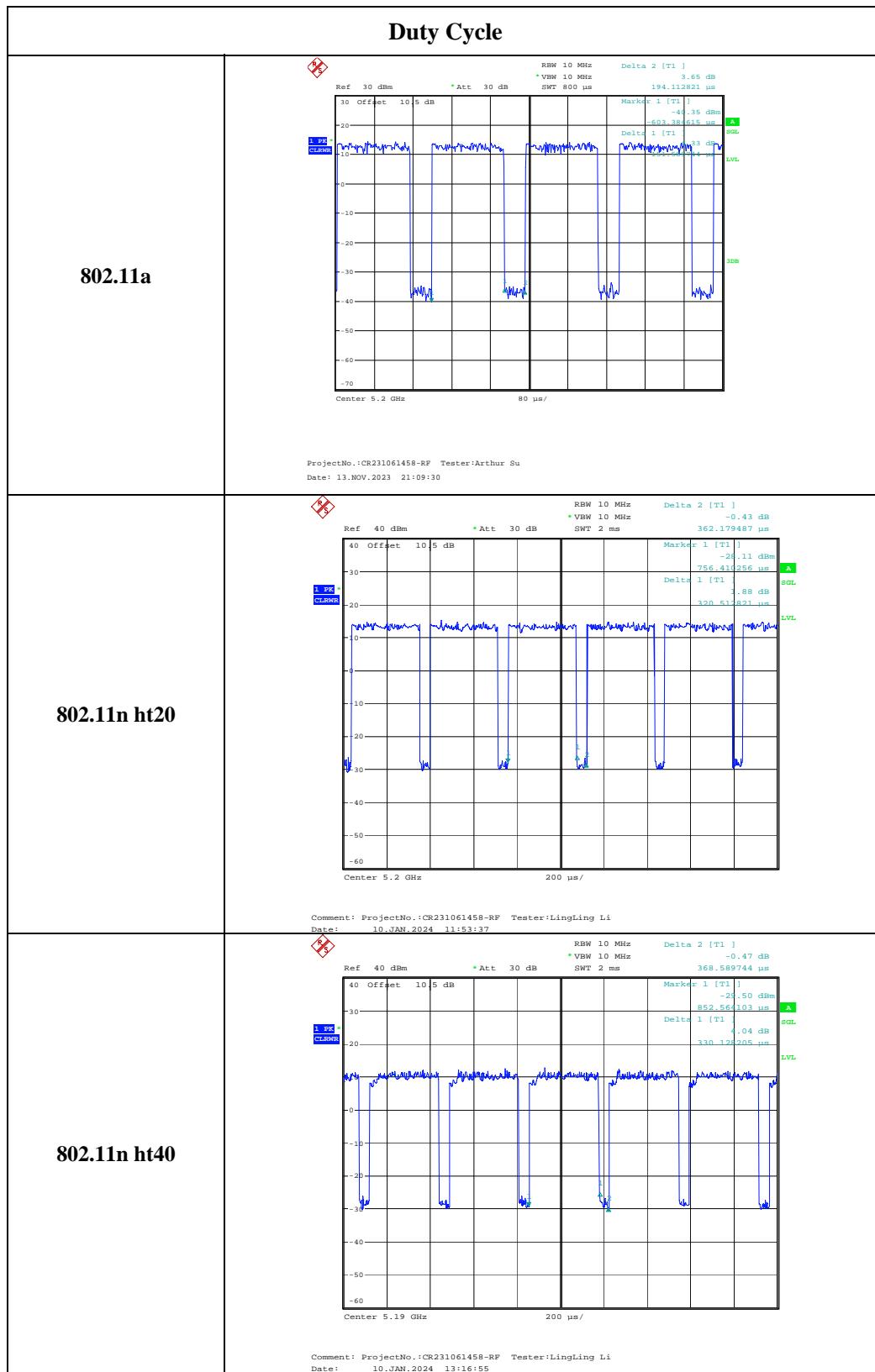
Test Equipment List and Details:

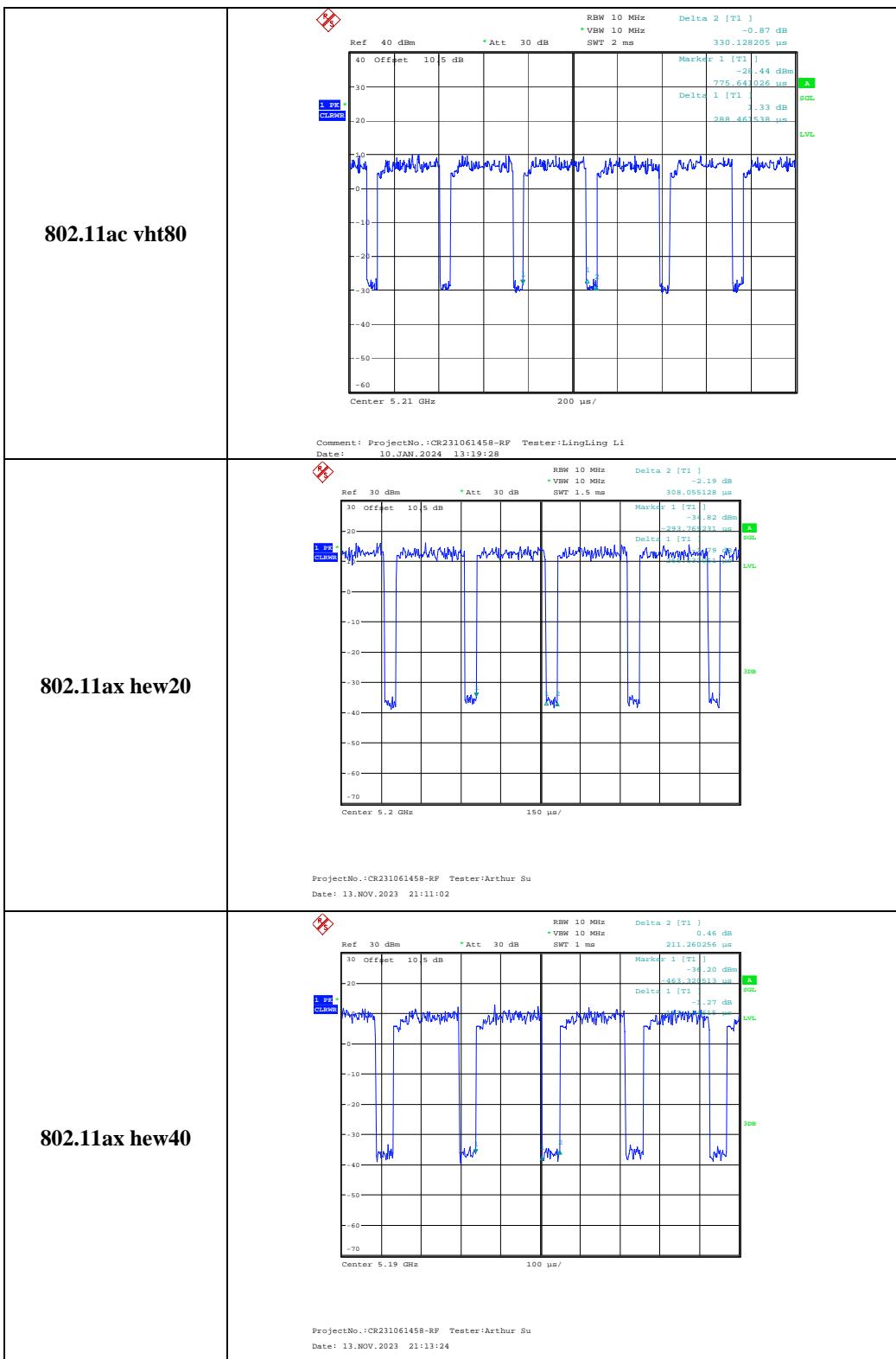
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30

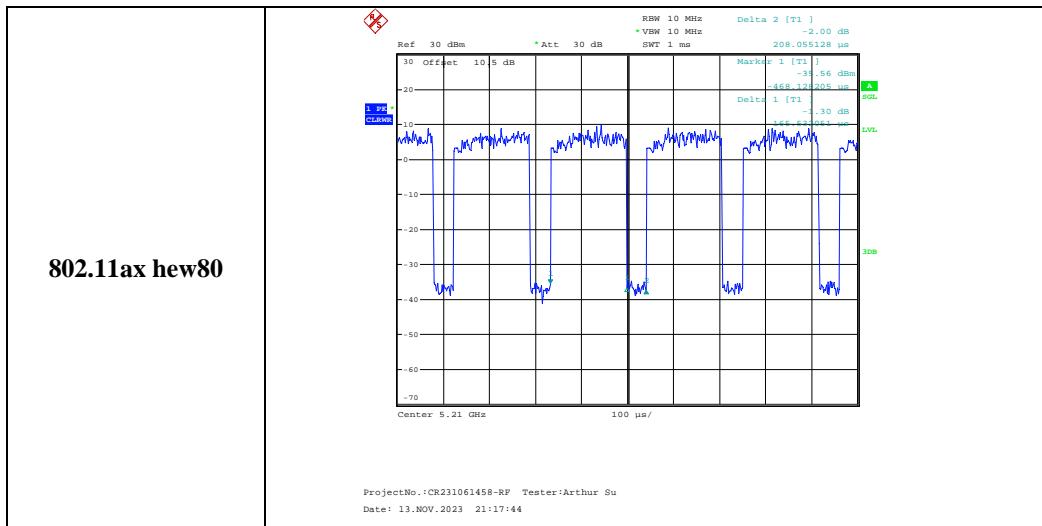
* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	Duty Factor (dB)	VBW Setting (kHz)
802.11a	0.152	0.194	78.35	6579	1.06	10
802.11n ht20	0.321	0.362	88.67	3115	0.52	5
802.11n ht40	0.33	0.369	89.43	3030	0.49	5
802.11ac vht80	0.288	0.33	87.27	3472	0.59	5
802.11ax hew20	0.266	0.308	86.36	3759	0.64	5
802.11ax hew40	0.167	0.211	79.15	5988	1.02	10
802.11ax hew80	0.166	0.208	79.81	6024	0.98	10







5. EUT PHOTOGRAPHS

Please refer to the attachment CR231061458-EXP EUT EXTERNAL PHOTOGRAPHS and
CR231061458-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR231061458-00D-TSP TEST SETUP PHOTOGRAPHS.

===== END OF REPORT =====