



TEST REPORT

Report No.: **CTC2024283517**

FCC ID.....: **2AR24-X4K-BOX**

Applicant: **Shenzhen Absen Optoelectronic Co., Ltd**

Address.....: 18-20/F, Tower A, Building 3, Phase I, Tian An Cloud Park,
NO.2018, Xuegang Rd, Bantian, Longgang District, Shenzhen,
Guangdong, P.R. China

Manufacturer.....: Shenzhen Absen Optoelectronic Co., Ltd

Address.....: 18-20/F, Tower A, Building 3, Phase I, Tian An Cloud Park,
NO.2018, Xuegang Rd, Bantian, Longgang District, Shenzhen,
Guangdong, P.R. China

Product Name: **LED Multimedia Processor**

Trade Mark: **Absen**

Model/Type reference.....: Absen X4K-BOX

Listed Model(s).....: /

Standard: **FCC CFR Title 47 Part 15 Subpart E Section 15.407**

Test Report Form No: CTC-TR-062_A2

Master TRF: Dated 2025-05-12

Date of receipt of test sample.....: Dec. 20, 2024

Date of testing.....: Feb. 19, 2025 ~ Mar. 19, 2025

Date of issue.....: Jul. 02, 2025

Result.....: **PASS**

Compiled by:

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Lucy Lan

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Approved by:

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Totti Zhao

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TRF No: CTC-TR-062_A2

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Society : yz.cncaq.com



1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

[FCC Rules Part 15.407](#): for 802.11a/n/ac/ax, the test procedure follows the FCC KDB 789033 D02 General UNII Test Procedures New Rules V02r01.

[ANSI C63.10-2013](#): American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

1.2. Report Version

Revised No.	Report No.	Date of issue	Description
01	CTC2024283517	Jul. 02, 2025	Original



1.3. Test Description

FCC Part 15 Subpart E (15.407)			
Test Item	Standard Section	Result	Test Engineer
Antenna Requirement	15.203	Pass	Marrow
Conducted Emission	15.207	Pass	Marrow
Band Edge Emissions	15.407(b)	Pass	Marrow
26dB Bandwidth & 99% Bandwidth	15.407(a)	Pass	Marrow
6dB Bandwidth (only for UNII-3)	15.407(e)	Pass	Marrow
Peak Output Power	15.407(a)	Pass	Marrow
Power Spectral Density	15.407(a)	Pass	Marrow
Transmitter Radiated Spurious Emission	15.407(b) & 15.209	Pass	Marrow
Frequency Stability	15.407(g)	Pass	Marrow
Dynamic Frequency Selection (DFS)	15.407(h)	Pass	Marrow
Automatically Discontinue Transmission	15.407(c)	Pass	Note 3

Note:

1. The measurement uncertainty is not included in the test result.
2. N/A: means this test item is not applicable for this device according to the technology characteristic of device.
3. 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.



1.4. Test Facility

Address of the report laboratory

CTC Laboratories, Inc.

Add: Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 951311, Aug 26, 2017.



1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.

Test Items	Measurement Uncertainty	Notes
Emission Bandwidth	$\pm 0.0196\%$	(1)
Maximum Conduct Output Power	$\pm 0.766\text{dB}$	(1)
Power Spectral Density	$\pm 1.22\text{dB}$	(1)
Band Edge Measurements	$\pm 1.328\text{dB}$	(1)
Unwanted Emissions Measurement	9kHz-1GHz: $\pm 0.746\text{dB}$ 1GHz-26GHz: $\pm 1.328\text{dB}$	(1)
Frequency Stability	$\pm 2.76\%$	(1)
Conducted Emissions 9kHz~30MHz	$\pm 3.08\text{ dB}$	(1)
Radiated Emissions 30~1000MHz	$\pm 4.51\text{ dB}$	(1)
Radiated Emissions 1~18GHz	$\pm 5.84\text{ dB}$	(1)
Radiated Emissions 18~40GHz	$\pm 6.12\text{ dB}$	(1)

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



1.6. Environmental Conditions

Normal Condition	Temperature	15 °C to 35 °C
	Relative Humidity	20 % to 75 %
	Air Pressure	101 kPa
	Voltage	The normal test voltage for the equipment shall be the nominal voltage for which the equipment was designed.
Extreme Condition	Temperature	Measurements shall be made over the extremes of the operating temperature range as declared by the manufacturer.
	Voltage	Measurements shall be made over the extremes of the operating temperature range as declared by the manufacturer.

Normal Condition	T _N =Normal Temperature	25 °C
Extreme Condition	T _L =Lower Temperature	0 °C
	T _H =Higher Temperature	45 °C



2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Shenzhen Absen Optoelectronic Co., Ltd
Address:	18-20/F, Tower A, Building 3, Phase I, Tian An Cloud Park, NO.2018, Xuegang Rd, Bantian, Longgang District, Shenzhen, Guangdong, P.R. China
Manufacturer:	Shenzhen Absen Optoelectronic Co., Ltd
Address:	18-20/F, Tower A, Building 3, Phase I, Tian An Cloud Park, NO.2018, Xuegang Rd, Bantian, Longgang District, Shenzhen, Guangdong, P.R. China
Factory:	Huizhou Absen Optoelectronic Limited.
Address:	No. 03, Donghua South road, Dongjiang Hi-tech Industry Park, Huizhou. Guangdong, China

2.2. General Description of EUT

Product Name:	LED Multimedia Processor
Trade Mark:	absen
Model/Type reference:	Absen X4K-BOX
Listed Model(s):	/
Model Difference:	/
Sample ID:	CTC241127-005-S002
RF module:	FRX-M79AU-21
Power Supply:	INPUT: 100-240V~50/60Hz 11.5A
Hardware Version:	/
Software Version:	/



5G Wi-Fi					
Operation Band:	☒ U-NII-1	☒ U-NII-3			
Operation Frequency:	U-NII-1	5150MHz~5250MHz			
	U-NII-3	5725MHz~5850MHz			
Support Bandwidth:	802.11a	☒ 20MHz			
	802.11n	☒ 20MHz	☒ 40MHz		
	802.11ac	☒ 20MHz	☒ 40MHz	☒ 80MHz	
	802.11ax	☒ 20MHz	☒ 40MHz	☒ 80MHz	
Modulation:	802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)				
Antenna Type:	PCB Antenna				
Antenna Gain:	ANT1:1.95dBi ANT2:1.58dBi				

2.3. Accessory Equipment Information

Equipment Information			
Name	Model	S/N	Manufacturer
Notebook	ThinkPad T460s	/	Lenovo
Cable Information			
Name	Shielded Type	Ferrite Core	Length
USB Cable	Unshielded	NO	150cm
Test Software Information			
Name	Version	/	/
QATool_Dbg	/	/	/



2.4. Operation State

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting.

Operation Frequency List:

Operating Band	20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
U-NII-1	36	5180	38	5190	42	5210
	40	5200				
	44	5220	46	5230		
	48	5240				
U-NII-3	149	5745	151	5755	155	5775
	153	5765				
	157	5785	159	5795		
	161	5805				
	165	5825				



Test channel is below:

Operating Band	Test Channel	20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
		Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
U-NII-1	CH _L	36	5180	38	5190	/	/
	CH _M	40	5200	/	/	42	5210
	CH _H	48	5240	46	5230	/	/
U-NII-3	CH _L	149	5745	151	5755	/	/
	CH _M	157	5785	/	/	155	5775
	CH _H	165	5825	159	5795	/	/

Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)
1	NA	NA	External Antenna	IPEX	1.95
2	NA	NA	External Antenna	IPEX	1.58

This EUT supports MIMO 2X2 with the same antenna gain, and any transmit signals are correlated with each other.

This EUT supports MIMO 2X2 with the unequal antenna gain, and any transmit signals are correlated with each other.

According to KDB 662911 D01, Directional Gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N]$ dBi, that is Directional Gain = $10 \log[((10^{1.95/20} + 10^{1.58/20})^2) / 2] = 4.78 \text{ dBi}$.

Data Rated:

Preliminary tests were performed in different data rate, and found which the below bit rate is worst case mode, so only show data which it is a worst case mode.

Test Mode	Data Rate (worst mode)
802.11a	6Mbps
802.11n(HT20)/ 802.11n(HT40)	HT-MCS0
802.11ac(VHT20)/ 802.11ac(VHT40)/ 802.11ac(VHT80)	VHT-MCS0
802.11ax(HE20)/ 802.11ax(HE40)/ 802.11ax(HE80)	HE-MCS0



Test Mode:

For RF test items:
1.The engineering test program was provided and enabled to make EUT continuous transmit.
2. IEEE 802.11ax mode only supports full RU, so only the full RU is evaluated and measured inside report
3. The measurements for Output Power are tested, the worst case is IEEE 802.11a mode, IEEE 802.11n(HT20) mode, IEEE 802.11n(HT40) mode, IEEE 802.11ac(VHT80) mode, IEEE 802.11ac(VHT160) mode, IEEE 802.11ax(HE20) mode, IEEE 802.11ax(HE40) mode, IEEE 802.11ax(HE80) mode, IEEE 802.11ax(HE160) mode, only the worst cases are documented for other test items.
For AC power line conducted emissions:
The EUT was set to connect with the WLAN AP under large package sizes transmission.
For Radiated spurious emissions test item:
The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.
For DFS test items:
The EUT has been tested under test mode condition. The Applicant provides software to control the EUT for staying in DFS mode for testing.



2.5. Measurement Instruments List

RF Test System - SRD					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	Spectrum Analyzer	R&S	FSV40-N	101654	Aug. 06, 2025
2	EXG Analog Signal Generator	Keysight	N5173B	MY59100842	Dec. 12, 2025
3	MXG Vector Signal Generator	Keysight	N5182B	MY59100212	Dec. 12, 2025
4	Wideband Radio Communication Tester	R&S	CMW500	102257	May 24, 2025
5	RF Control Unit	Tonscend	JS0806-2	/	Aug. 21, 2025
6	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 21, 2025
7	Test Software	Tonscend	JS1120-3	V3.3.38	/

Radiated emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9163	01026	Dec. 24, 2025
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Sep. 25, 2025
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 12, 2025
4	Broadband Amplifier	Schwarzbeck	BBV9743B	259	Dec. 12, 2025
5	Mirowave Broadband Amplifier	Schwarzbeck	BBV9718C	111	Dec. 12, 2025
6	3m chamber 3	YIHENG	EE106	/	Aug. 28, 2026
7	Test Software	FARA	EZ-EMC	FA-03A2	/

Conducted emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	LISN	R&S	ENV216	101112	Dec. 12, 2025
2	LISN	R&S	ENV216	101113	Dec. 12, 2025
3	EMI Test Receiver	R&S	ESCI	100524	Dec. 12, 2025
4	ISN CAT6	Schwarzbeck	NTFM 8158	CAT6-8158-0046	Dec. 12, 2025
5	ISN CAT5	Schwarzbeck	NTFM 8158	CAT5-8158-0046	Dec. 12, 2025
6	Test Software	R&S	EMC32	6.10.10	/

Note: 1. The Cal. Interval was one year.

2. The Cal. Interval was three years of the antenna.

3. The cable loss has been calculated in test result which connection between each test instruments.

3. TEST ITEM AND RESULTS

3.1. Conducted Emission

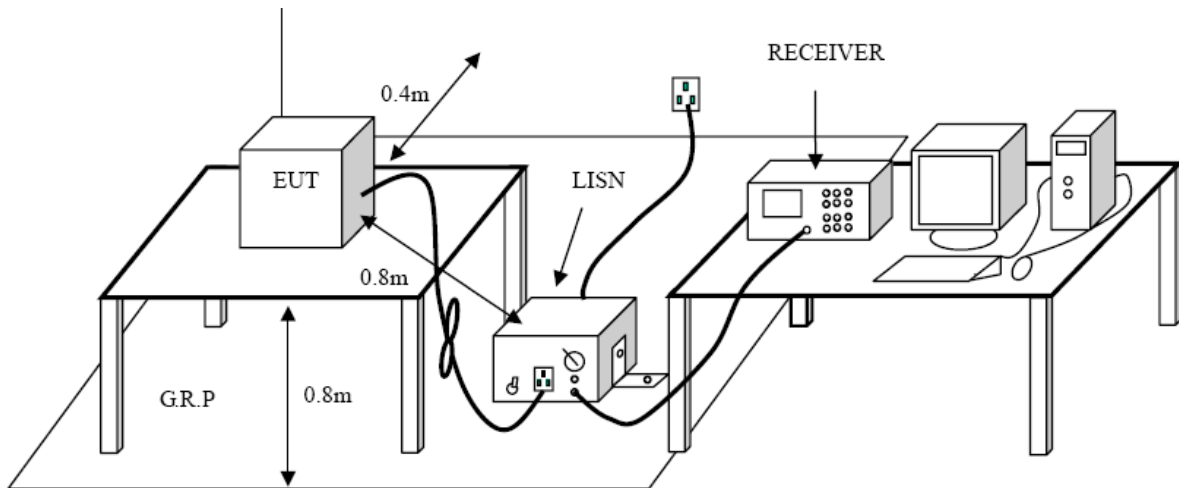
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency (MHz)	Conducted Limit (dBμV)	
	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.

Test Configuration



Test Procedure

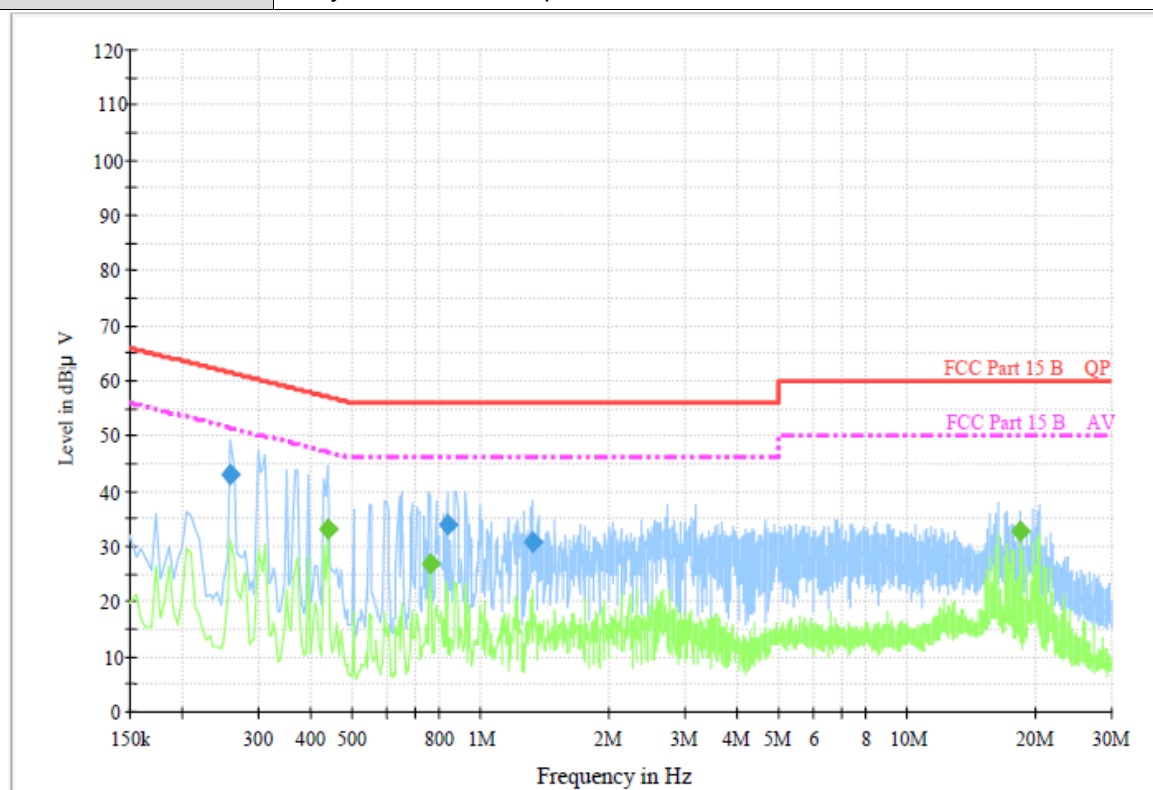
1. The EUT was setup according to ANSI C63.10:2013 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm / 50 μH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

Test Mode

Please refer to the clause 2.4.

**Test Result**

Test Voltage:	AC 120V/60Hz
Terminal:	Line
Remark:	Only worse case is reported

**Final Measurement Detector 1**

Frequency (MHz)	QuasiPeak (dBμ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.258000	43.2	1000.00	9.000	On	L1	9.5	18.3	61.5	
0.829500	34.1	1000.00	9.000	On	L1	9.6	21.9	56.0	
1.315500	30.7	1000.00	9.000	On	L1	9.7	25.3	56.0	

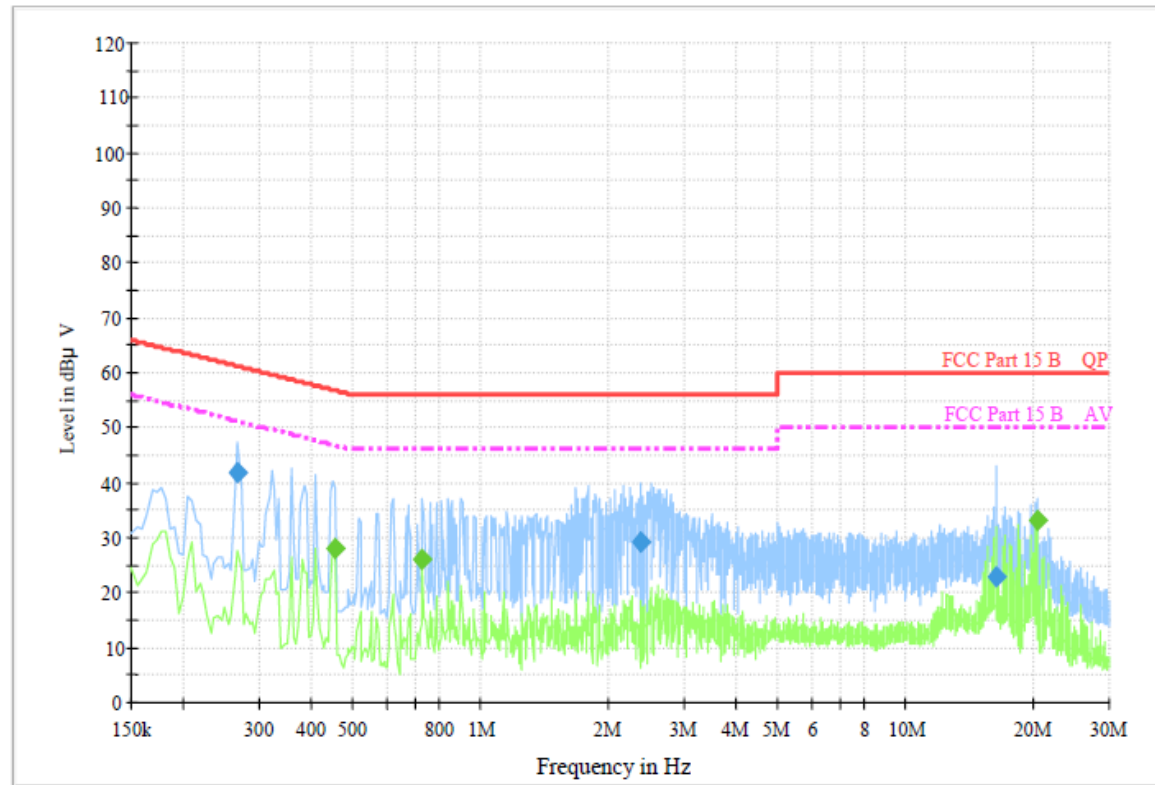
Final Measurement Detector 2

Frequency (MHz)	Average (dBμ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.438000	33.0	1000.00	9.000	On	L1	9.4	14.1	47.1	
0.762000	27.0	1000.00	9.000	On	L1	9.6	19.0	46.0	
18.244500	32.9	1000.00	9.000	On	L1	9.8	17.1	50.0	

Emission Level = Read Level + Correct Factor



Test Voltage:	AC 120V/60Hz
Terminal:	Neutral
Remark:	Only worse case is reported



Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.267000	41.7	1000.00	9.000	On	N	9.4	19.5	61.2	
2.373000	29.2	1000.00	9.000	On	N	9.4	26.8	56.0	
16.215000	23.1	1000.00	9.000	On	N	9.6	36.9	60.0	

Final Measurement Detector 2

Frequency (MHz)	Average (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.451500	28.1	1000.00	9.000	On	N	9.6	18.7	46.8	
0.726000	26.3	1000.00	9.000	On	N	9.3	19.8	46.0	
20.260500	33.2	1000.00	9.000	On	N	9.6	16.8	50.0	

Emission Level = Read Level + Correct Factor



3.2. Radiated Emission

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.209

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F (kHz)	300
0.490~1.705	24000/F (kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Frequency Range (MHz)	dBμV/m (at 3 meters)	
	Peak	Average
Above 1000	74	54

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBμV/m)=20log Emission Level (μV/m).

Limits of unwanted emission out of the restricted bands

FCC CFR Title 47 Part 15 Subpart E Section 15. 407(b)

Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150~5250	-27	68.2
5250~5350	-27	68.2
5470~5725	-27	68.2
5725~5825	-27 (Note 2)	68.2
	10 (Note 2)	105.2
	15.6 (Note 2)	110.8
	27 (Note 2)	122.2

Note:

1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field

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

2. According to FCC 16-24, 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 25MHz 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 27dBm/MHz at the band edge.

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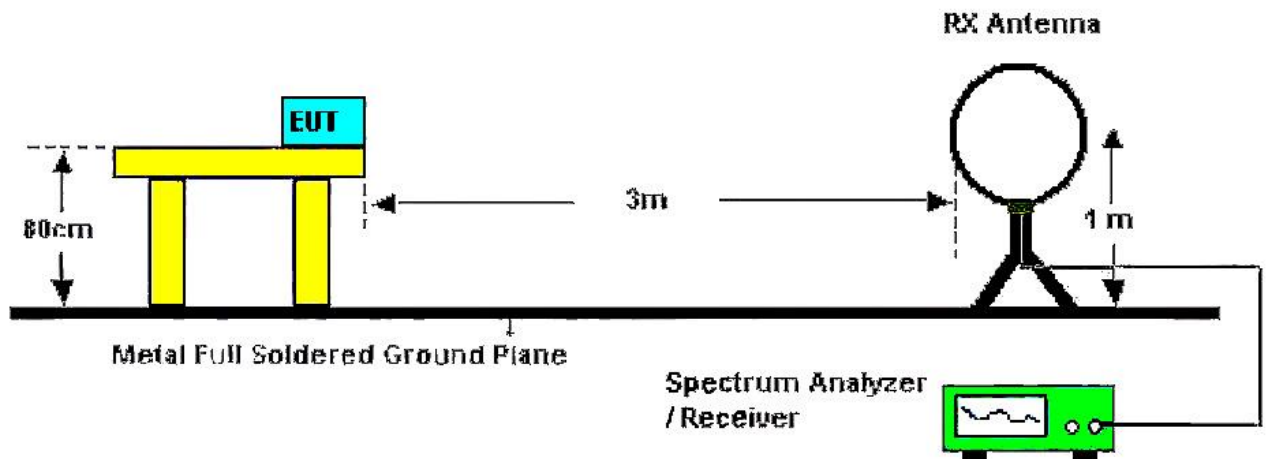
For anti-fake verification, please visit the official website of China Inspection And Testing

Society : yz.cncaq.com

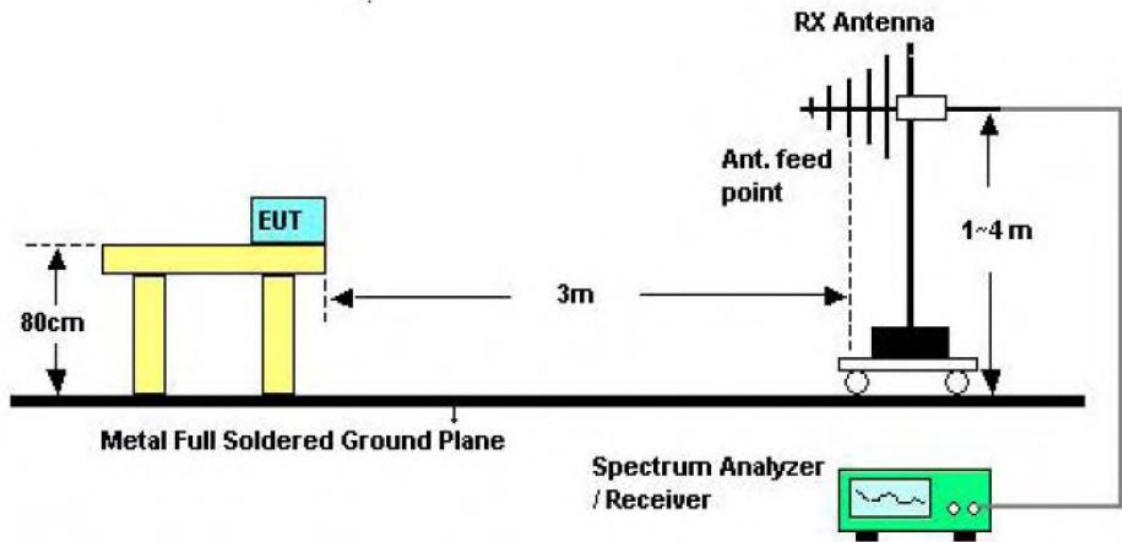
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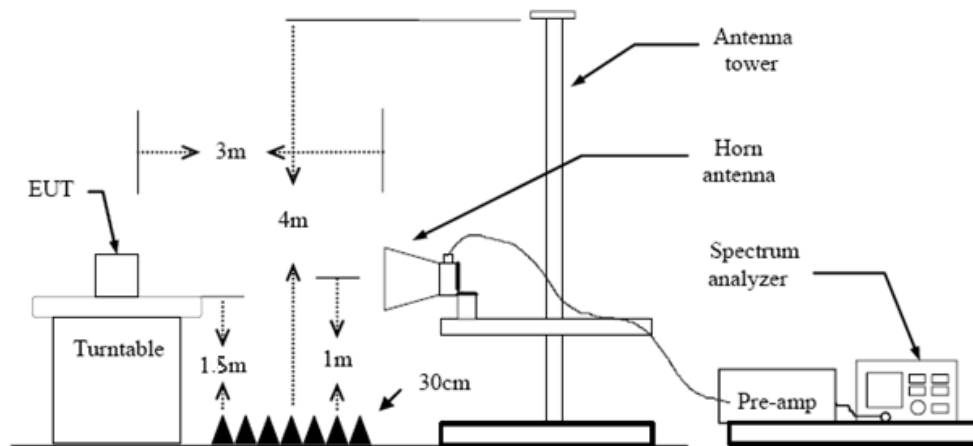
Test Configuration



Below 30MHz Test Setup



30-1000MHz Test Setup



Above 1GHz Test Setup

CTC Laboratories, Inc.

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TRF No: CTC-TR-062_A2



Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2013.
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) 9k – 150kHz:
RBW=300 Hz, VBW=1 kHz, Sweep=auto, Detector function=peak, Trace=max hold
 - (3) 0.15M – 30MHz:
RBW=10 kHz, VBW=30 kHz, Sweep=auto, Detector function=peak, Trace=max hold
 - (4) 30M - 1 GHz:
RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max holdIf the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
- (5) From 1 GHz to 10th harmonic:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.
Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause Duty Cycle.

Test Mode

Please refer to the clause 2.4.

Test Result

9 kHz~30 MHz

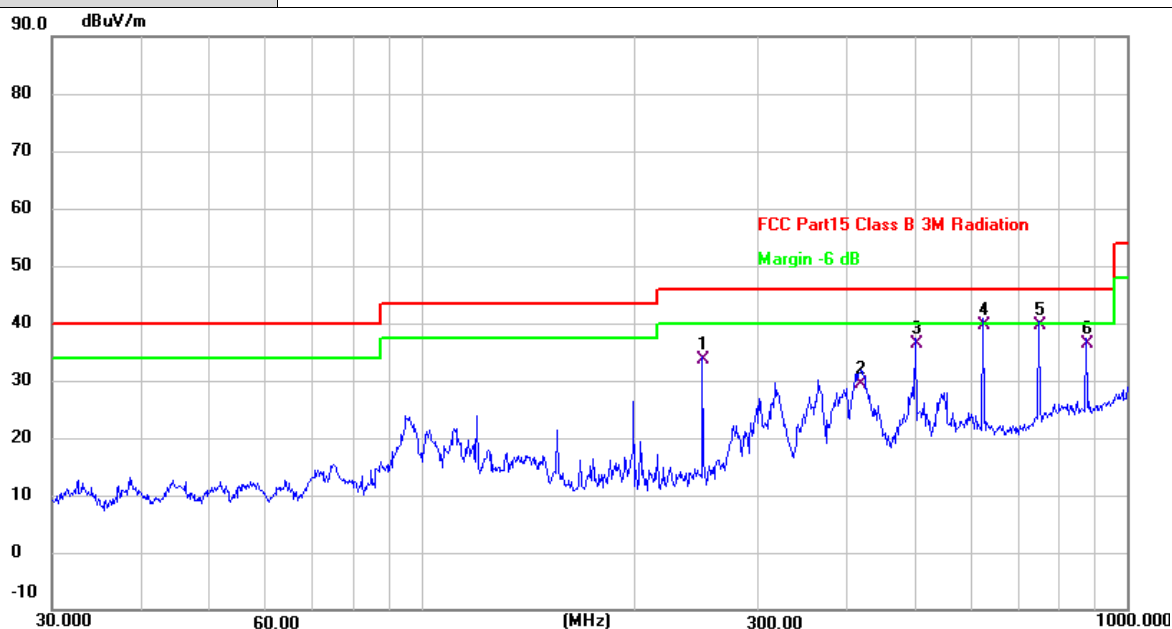
From 9 kHz to 30 MHz: The conclusion is PASS.

- Note: 1. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
2. Pre-scan all antenna, only show the test data for worse case antenna on the test report.



30MHz-1GHz

Ant. No.	Ant 1
Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	250.3012	49.65	-16.05	33.60	46.00	-12.40	QP
2	420.5803	40.37	-10.97	29.40	46.00	-16.60	QP
3	501.1790	45.15	-8.65	36.50	46.00	-9.50	QP
4 *	625.0780	45.63	-5.93	39.70	46.00	-6.30	QP
5	750.1083	43.77	-4.17	39.60	46.00	-6.40	QP
6	875.2470	38.80	-2.30	36.50	46.00	-9.50	QP

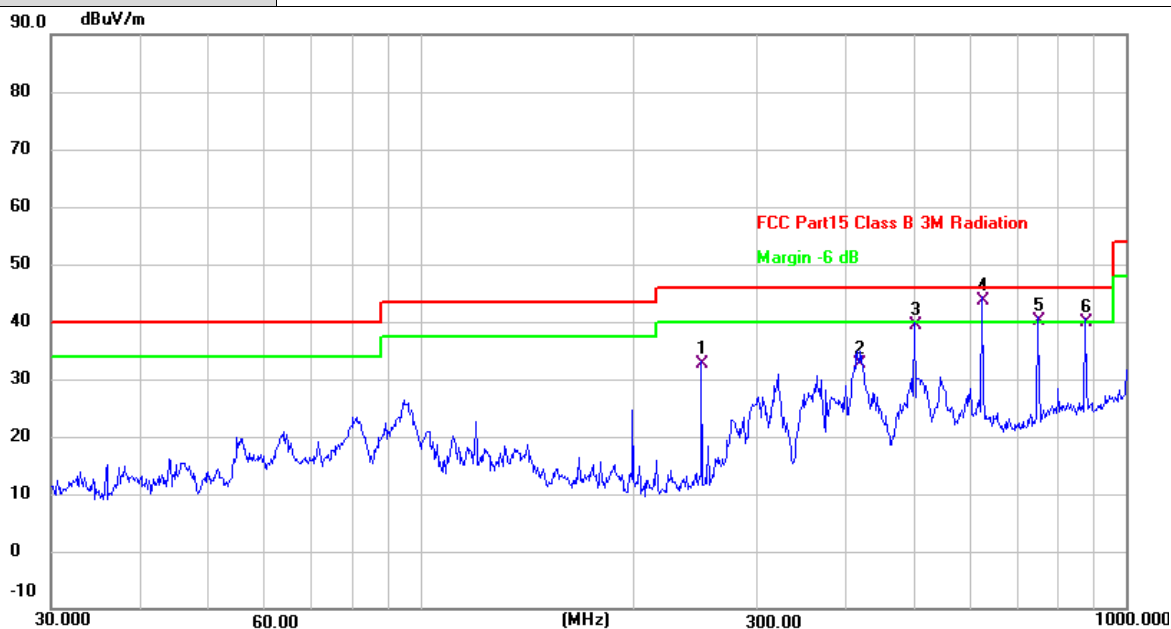
Remarks:

1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2. Margin value = Level -Limit value



Ant. No.	Ant 1
Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	250.3012	48.65	-16.05	32.60	46.00	-13.40	QP
2	420.5803	43.67	-10.97	32.70	46.00	-13.30	QP
3	501.1790	48.15	-8.65	39.50	46.00	-6.50	QP
4 *	625.0780	49.53	-5.93	43.60	46.00	-2.40	QP
5 !	750.1083	44.27	-4.17	40.10	46.00	-5.90	QP
6	875.2470	42.20	-2.30	39.90	46.00	-6.10	QP

Remarks:

1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2. Margin value = Level -Limit value



Above 1GHz

Ant. No.	Ant 1						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10360.701	44.56	13.74	58.30	74.00	-15.70	peak
2 *	10360.805	29.08	13.74	42.82	54.00	-11.18	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10359.863	39.29	13.75	53.04	74.00	-20.96	peak
2 *	10360.899	25.41	13.74	39.15	54.00	-14.85	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11a Mode 5200MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10399.031	27.76	13.79	41.55	54.00	-12.45	AVG
2	10399.237	38.27	13.79	52.06	74.00	-21.94	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11a Mode 5200MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10399.125	24.25	13.79	38.04	54.00	-15.96	AVG
2	10399.325	38.40	13.79	52.19	74.00	-21.81	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	10479.630	24.24	13.87	38.11	54.00	-15.89	AVG
2	10480.639	38.79	13.87	52.66	74.00	-21.34	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10479.324	38.56	13.87	52.43	74.00	-21.57	peak
2 *	10480.687	23.96	13.87	37.83	54.00	-16.17	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10359.104	39.48	13.75	53.23	74.00	-20.77	peak
2 *	10359.313	25.73	13.75	39.48	54.00	-14.52	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10359.335	38.22	13.75	51.97	74.00	-22.03	peak
2 *	10360.875	25.32	13.74	39.06	54.00	-14.94	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT20) Mode 5200MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10399.435	37.76	13.79	51.55	74.00	-22.45	peak
2 *	10400.234	24.06	13.79	37.85	54.00	-16.15	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT20) Mode 5200MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	10399.843	24.39	13.79	38.18	54.00	-15.82	AVG
2	10400.613	39.12	13.79	52.91	74.00	-21.09	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10479.449	23.91	13.87	37.78	54.00	-16.22	AVG
2	10480.891	39.77	13.87	53.64	74.00	-20.36	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10479.071	38.94	13.87	52.81	74.00	-21.19	peak
2 *	10479.175	24.13	13.87	38.00	54.00	-16.00	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10379.023	38.65	13.77	52.42	74.00	-21.58	peak
2 *	10380.447	24.59	13.77	38.36	54.00	-15.64	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10379.384	37.79	13.77	51.56	74.00	-22.44	peak
2 *	10380.907	24.26	13.77	38.03	54.00	-15.97	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10459.698	23.86	13.85	37.71	54.00	-16.29	AVG
2	10460.381	39.00	13.85	52.85	74.00	-21.15	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ac(VHT80) Mode 5210MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	10420.463	24.79	13.80	38.59	54.00	-15.41	AVG
2	10420.708	38.65	13.80	52.45	74.00	-21.55	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ac(VHT80) Mode 5210MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10419.471	38.20	13.80	52.00	74.00	-22.00	peak
2 *	10420.339	24.42	13.80	38.22	54.00	-15.78	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2																														
Ant. Pol.	Horizontal																														
Test Mode:	TX 802.11ax(HE20) Mode 5180MHz (U-NII-1)																														
Remark:	No report for the emission which more than 20 dB below the prescribed limit.																														
<table><tr><th>No.</th><th>Frequency (MHz)</th><th>Reading (dBuV)</th><th>Factor (dB/m)</th><th>Level (dBuV/m)</th><th>Limit (dBuV/m)</th><th>Margin (dB)</th><th>Detector</th></tr><tr><td>1</td><td>10359.927</td><td>40.16</td><td>13.75</td><td>53.91</td><td>74.00</td><td>-20.09</td><td>peak</td></tr><tr><td>2 *</td><td>10360.413</td><td>25.38</td><td>13.74</td><td>39.12</td><td>54.00</td><td>-14.88</td><td>AVG</td></tr></table>								No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	1	10359.927	40.16	13.75	53.91	74.00	-20.09	peak	2 *	10360.413	25.38	13.74	39.12	54.00	-14.88	AVG
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector																								
1	10359.927	40.16	13.75	53.91	74.00	-20.09	peak																								
2 *	10360.413	25.38	13.74	39.12	54.00	-14.88	AVG																								
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value																															

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE20) Mode 5180MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE20) Mode 5200MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10399.033	38.26	13.79	52.05	74.00	-21.95	peak
2 *	10400.333	24.49	13.79	38.28	54.00	-15.72	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE20) Mode 5200MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	10399.547	24.00	13.79	37.79	54.00	-16.21	AVG
2	10399.828	38.86	13.79	52.65	74.00	-21.35	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE20) Mode 5240MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10479.075	39.88	13.87	53.75	74.00	-20.25	peak
2 *	10480.835	23.91	13.87	37.78	54.00	-16.22	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE20) Mode 5240MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	10480.499	24.15	13.87	38.02	54.00	-15.98	AVG
2	10480.783	38.14	13.87	52.01	74.00	-21.99	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE40) Mode 5190MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10379.379	38.86	13.77	52.63	74.00	-21.37	peak
2 *	10380.282	24.39	13.77	38.16	54.00	-15.84	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE40) Mode 5190MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10380.382	40.32	13.77	54.09	74.00	-19.91	peak
2 *	10380.743	24.25	13.77	38.02	54.00	-15.98	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE40) Mode 5230MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10460.119	23.93	13.85	37.78	54.00	-16.22	AVG
2	10460.736	38.35	13.85	52.20	74.00	-21.80	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE40) Mode 5230MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	10459.146	39.10	13.85	52.95	74.00	-21.05	peak
2 *	10459.185	23.81	13.85	37.66	54.00	-16.34	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE80) Mode 5210MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10419.047	39.49	13.80	53.29	74.00	-20.71	peak
2 *	10419.061	24.52	13.80	38.32	54.00	-15.68	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE80) Mode 5210MHz (U-NII-1)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	10419.137	24.58	13.80	38.38	54.00	-15.62	AVG
2	10419.175	43.16	13.80	56.96	74.00	-17.04	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11a Mode 5745MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11489.082	38.25	14.93	53.18	74.00	-20.82	peak
2 *	11490.974	23.65	14.95	38.60	54.00	-15.40	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11a Mode 5745MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11490.029	23.65	14.95	38.60	54.00	-15.40	AVG
2	11490.383	38.60	14.95	53.55	74.00	-20.45	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11a Mode 5785MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11569.125	23.89	15.00	38.89	54.00	-15.11	AVG
2	11570.608	37.80	15.01	52.81	74.00	-21.19	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11a Mode 5785MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11569.168	24.13	15.00	39.13	54.00	-14.87	AVG
2	11570.785	38.72	15.01	53.73	74.00	-20.27	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11a Mode 5825MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11649.179	24.32	15.01	39.33	54.00	-14.67	AVG
2	11650.377	37.83	15.03	52.86	74.00	-21.14	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11a Mode 5825MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11650.421	24.26	15.03	39.29	54.00	-14.71	AVG
2	11650.463	38.87	15.03	53.90	74.00	-20.10	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT20) Mode 5745MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11490.285	23.79	14.95	38.74	54.00	-15.26	AVG
2	11490.607	39.58	14.95	54.53	74.00	-19.47	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT20) Mode 5745MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11489.236	38.14	14.94	53.08	74.00	-20.92	peak
2 *	11489.885	23.66	14.94	38.60	54.00	-15.40	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT20) Mode 5785MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11569.785	24.07	15.00	39.07	54.00	-14.93	AVG
2	11570.166	38.21	15.01	53.22	74.00	-20.78	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT20) Mode 5785MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11569.314	24.04	15.00	39.04	54.00	-14.96	AVG
2	11569.445	38.00	15.00	53.00	74.00	-21.00	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT20) Mode 5825MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11649.146	37.76	15.01	52.77	74.00	-21.23	peak
2 *	11649.916	24.26	15.01	39.27	54.00	-14.73	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT20) Mode 5825MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11650.161	37.95	15.03	52.98	74.00	-21.02	peak
2 *	11650.415	24.31	15.03	39.34	54.00	-14.66	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT40) Mode 5755MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11509.041	37.77	14.95	52.72	74.00	-21.28	peak
2 *	11510.824	24.00	14.96	38.96	54.00	-15.04	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT40) Mode 5755MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11509.083	24.18	14.95	39.13	54.00	-14.87	AVG
2	11510.843	39.37	14.96	54.33	74.00	-19.67	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11n(HT40) Mode 5795MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11589.141	24.53	15.02	39.55	54.00	-14.45	AVG
2	11589.197	39.18	15.02	54.20	74.00	-19.80	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11n(HT40) Mode 5795MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11590.644	38.35	15.03	53.38	74.00	-20.62	peak
2 *	11590.683	24.35	15.03	39.38	54.00	-14.62	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ac(VHT80) Mode 5775MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11549.205	37.95	14.98	52.93	74.00	-21.07	peak
2 *	11549.806	24.53	14.98	39.51	54.00	-14.49	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ac(VHT80) Mode 5775MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11550.669	24.52	15.00	39.52	54.00	-14.48	AVG
2	11550.865	39.14	15.00	54.14	74.00	-19.86	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE20) Mode 5745MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11489.365	37.24	14.94	52.18	74.00	-21.82	peak
2 *	11489.603	23.78	14.94	38.72	54.00	-15.28	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE20) Mode 5745MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11489.319	37.80	14.94	52.74	74.00	-21.26	peak
2 *	11489.643	23.81	14.94	38.75	54.00	-15.25	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE20) Mode 5785MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11570.262	24.17	15.01	39.18	54.00	-14.82	AVG
2	11570.997	38.31	15.01	53.32	74.00	-20.68	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE20) Mode 5785MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11569.187	24.12	15.00	39.12	54.00	-14.88	AVG
2	11569.247	38.47	15.00	53.47	74.00	-20.53	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE20) Mode 5825MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11649.867	24.37	15.01	39.38	54.00	-14.62	AVG
2	11650.653	38.73	15.03	53.76	74.00	-20.24	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE20) Mode 5825MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11649.197	38.41	15.01	53.42	74.00	-20.58	peak
2 *	11650.070	24.11	15.02	39.13	54.00	-14.87	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE40) Mode 5755MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11509.099	24.34	14.95	39.29	54.00	-14.71	AVG
2	11510.981	37.59	14.96	52.55	74.00	-21.45	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE40) Mode 5755MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11509.370	39.30	14.95	54.25	74.00	-19.75	peak
2 *	11510.801	24.31	14.96	39.27	54.00	-14.73	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE40) Mode 5795MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	11589.311	38.71	15.02	53.73	74.00	-20.27	peak
2 *	11590.042	24.23	15.03	39.26	54.00	-14.74	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE40) Mode 5795MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11589.836	38.63	15.02	53.65	74.00	-20.35	peak
2 *	11590.572	24.13	15.03	39.16	54.00	-14.84	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							



Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Horizontal						
Test Mode:	TX 802.11ax(HE80) Mode 5775MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11550.314	24.33	15.00	39.33	54.00	-14.67	AVG
2	11550.858	39.27	15.00	54.27	74.00	-19.73	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

Ant. No.	Ant 1 + Ant 2						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11ax(HE80) Mode 5775MHz (U-NII-3)						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1 *	11549.887	23.01	14.98	37.99	54.00	-16.01	AVG
2	11550.967	38.73	15.00	53.73	74.00	-20.27	peak
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

3.3. Band Edge Emissions

Limit

Limits of unwanted emission out of the restricted bands

FCC CFR Title 47 Part 15 Subpart E Section 15. 407(b)

Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150~5250	-27	68.2
5250~5350	-27	68.2
5470~5725	-27	68.2
5725~5825	-27 (Note 2)	68.2
	10 (Note 2)	105.2
	15.6 (Note 2)	110.8
	27 (Note 2)	122.2

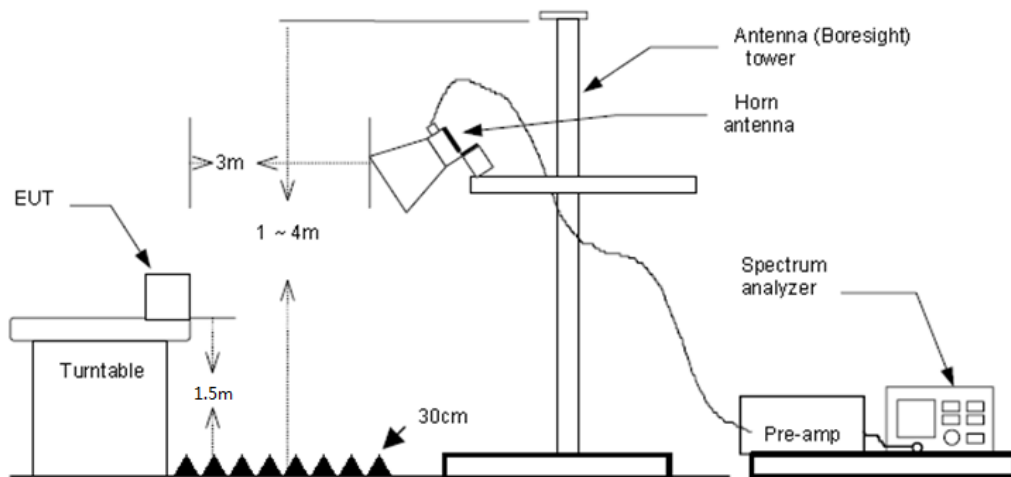
Note:

1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field

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

2. According to FCC 16-24, 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 25MHz 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 27dBm/MHz at the band edge.

Test Configuration





Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
5. The receiver set as follow:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause Duty Cycle.

Test Mode

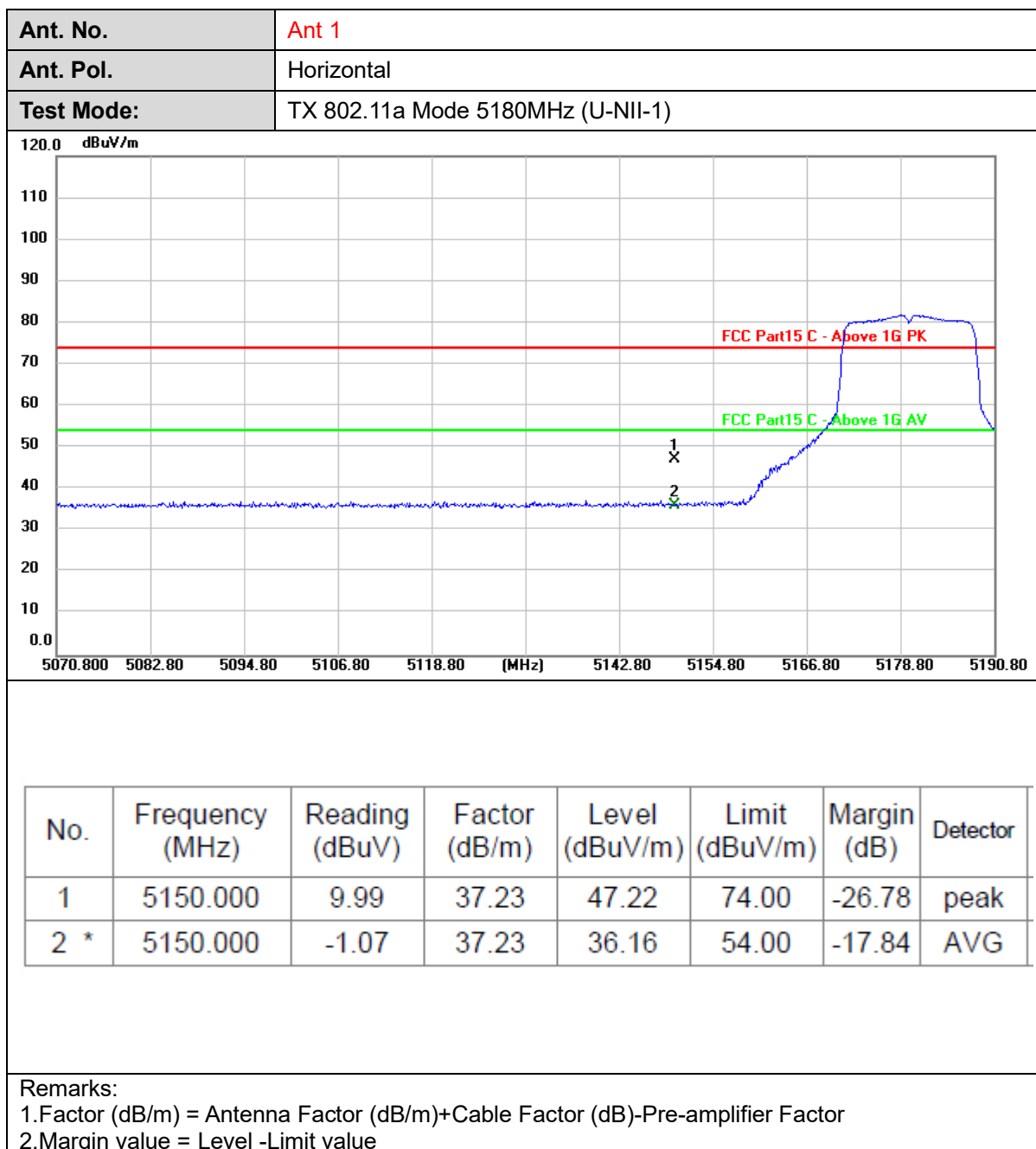
Please refer to the clause 2.4.

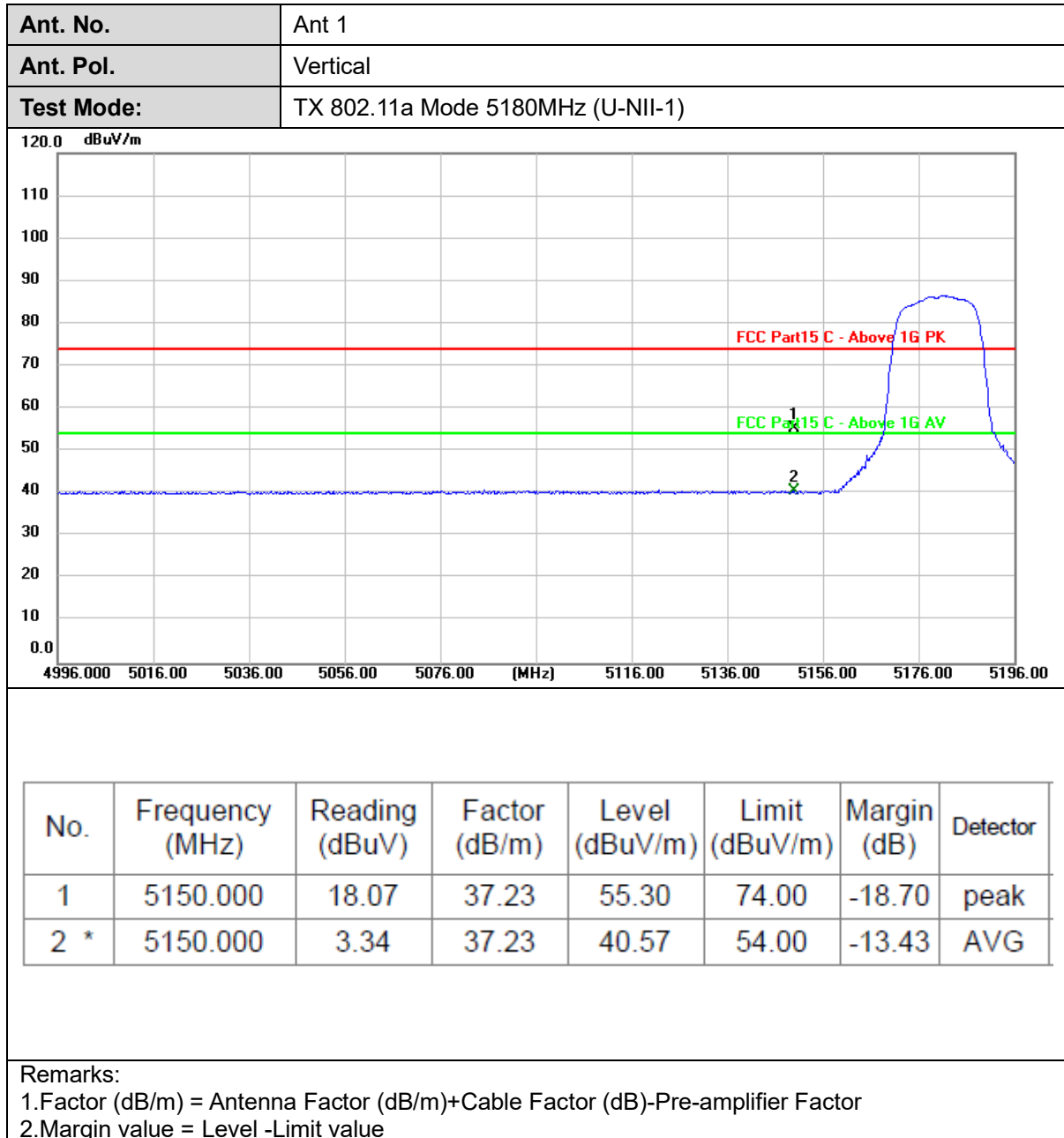


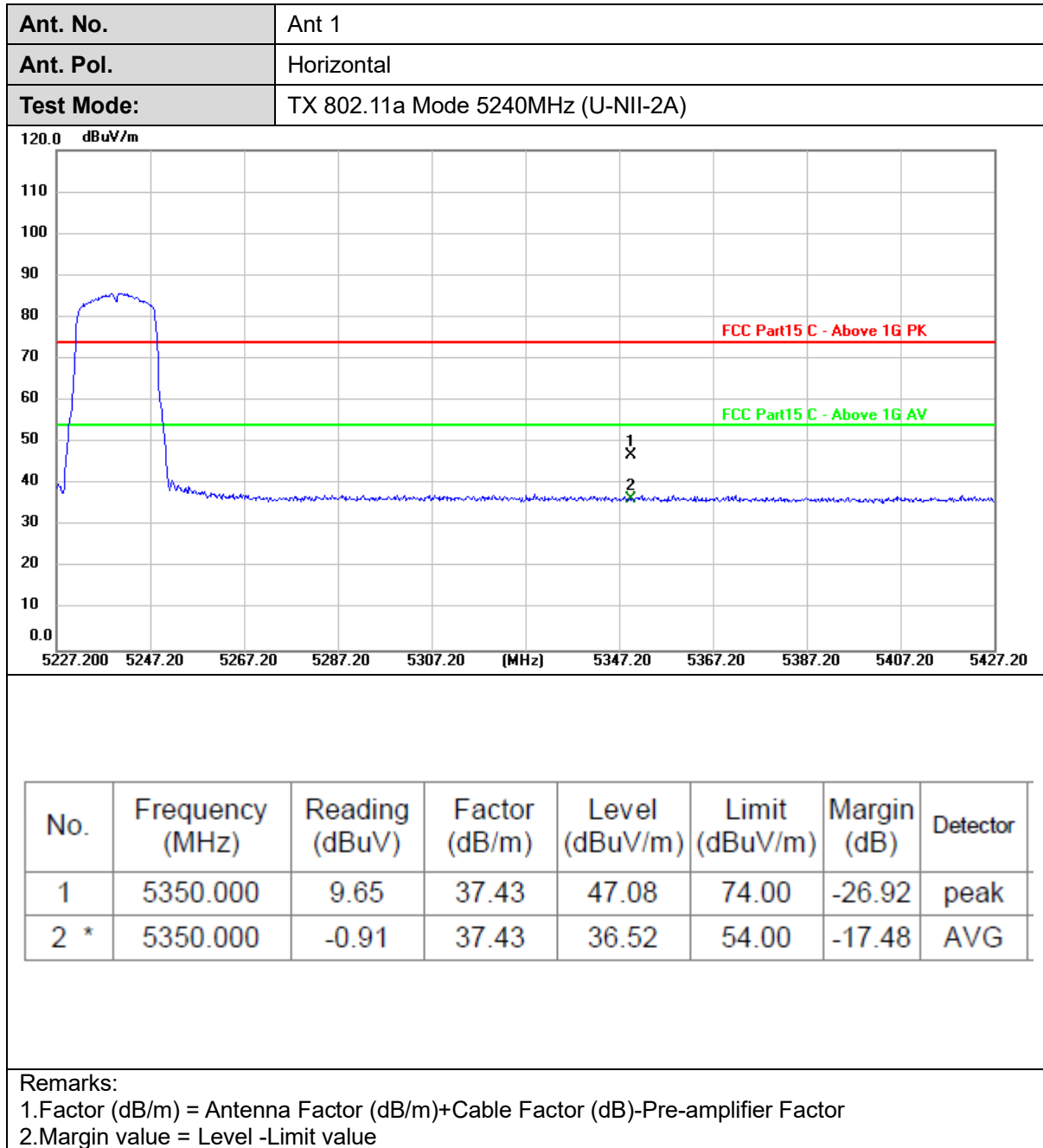
Test Result

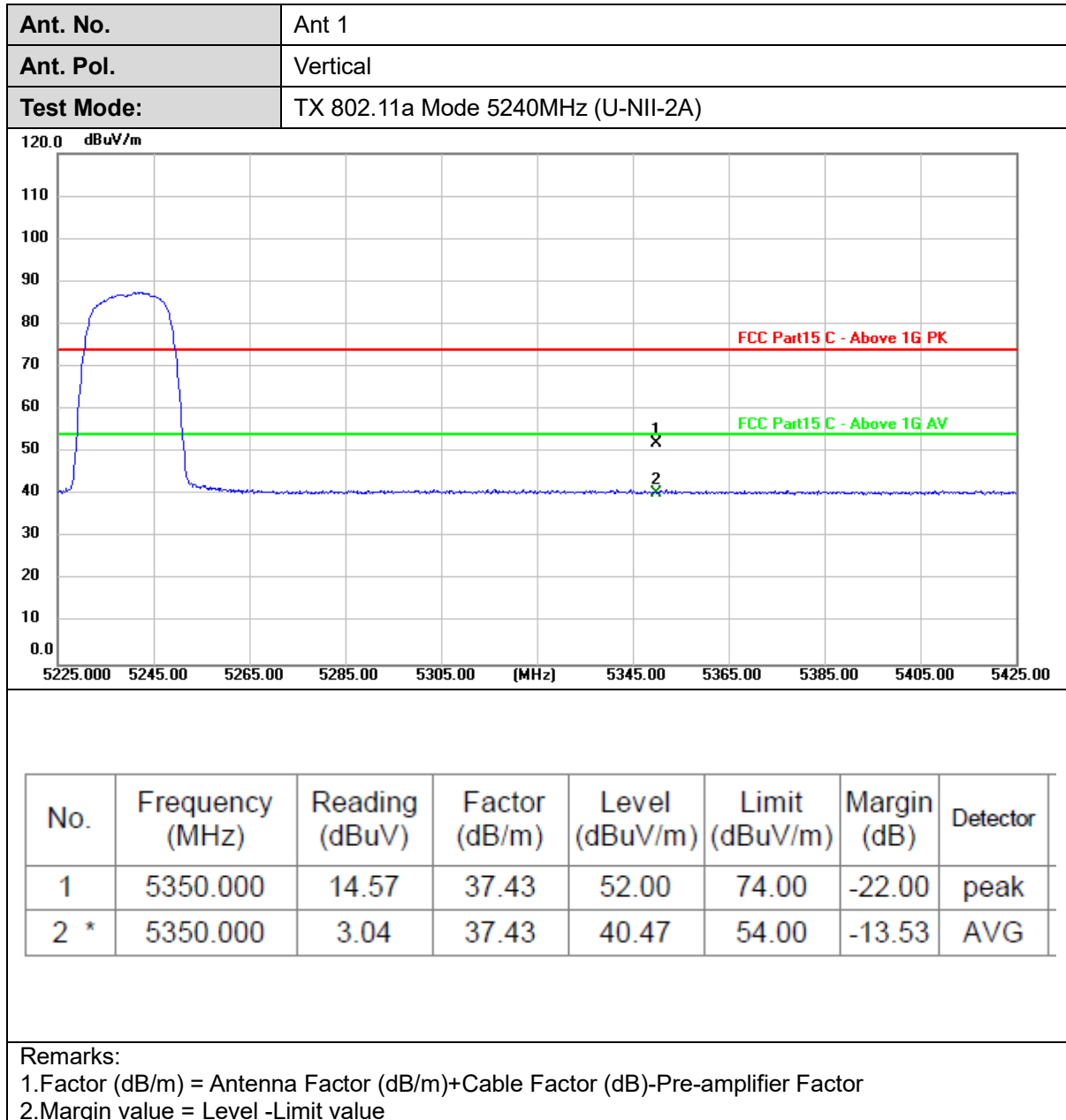
Note: 1. Pre-scan both 4500-5150MHz, 5350-5460MHz were investigated, report only shows the test data for worst case.

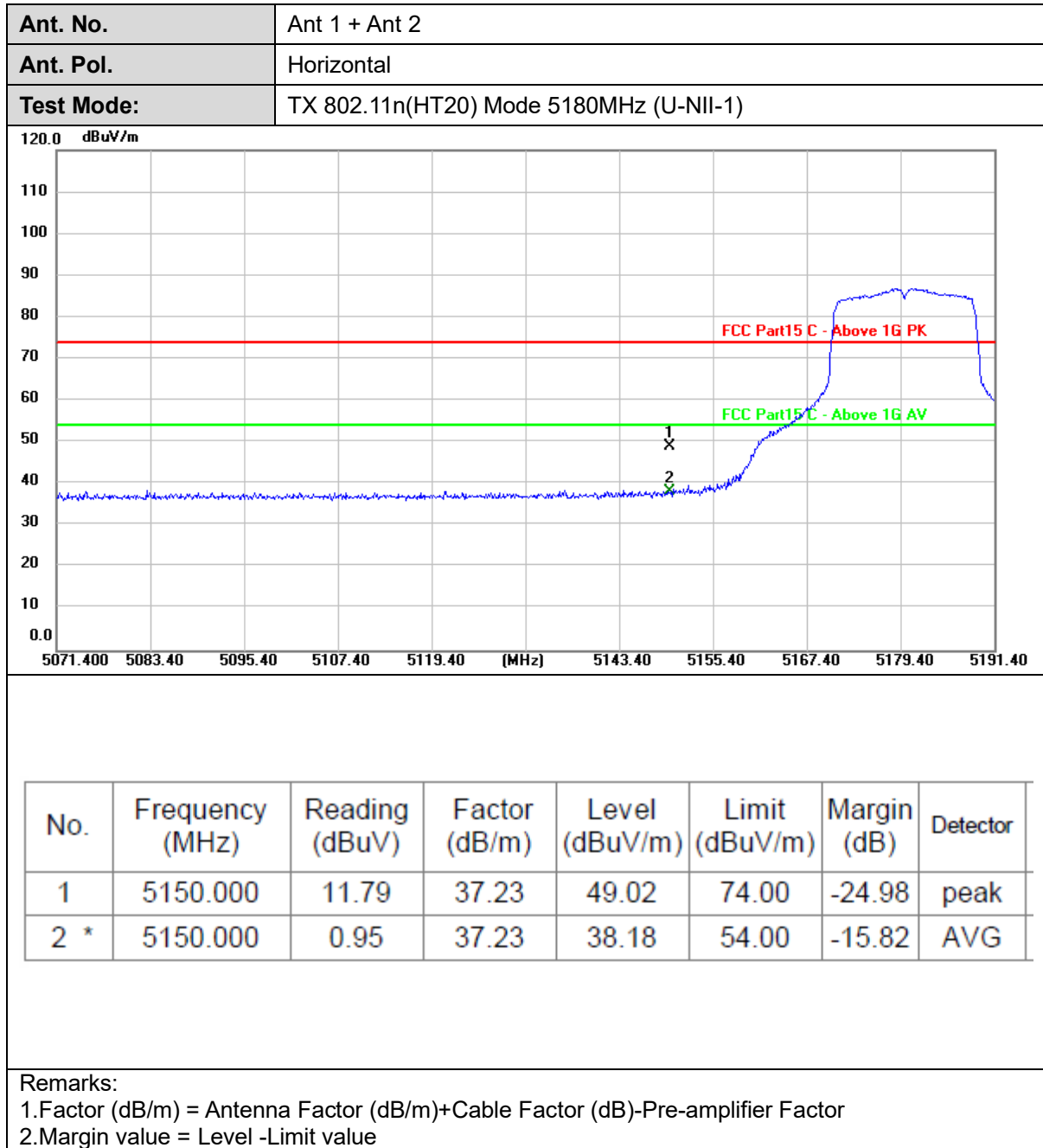
2. Pre-scan all antenna, only show the test data for worse case antenna on the test report.

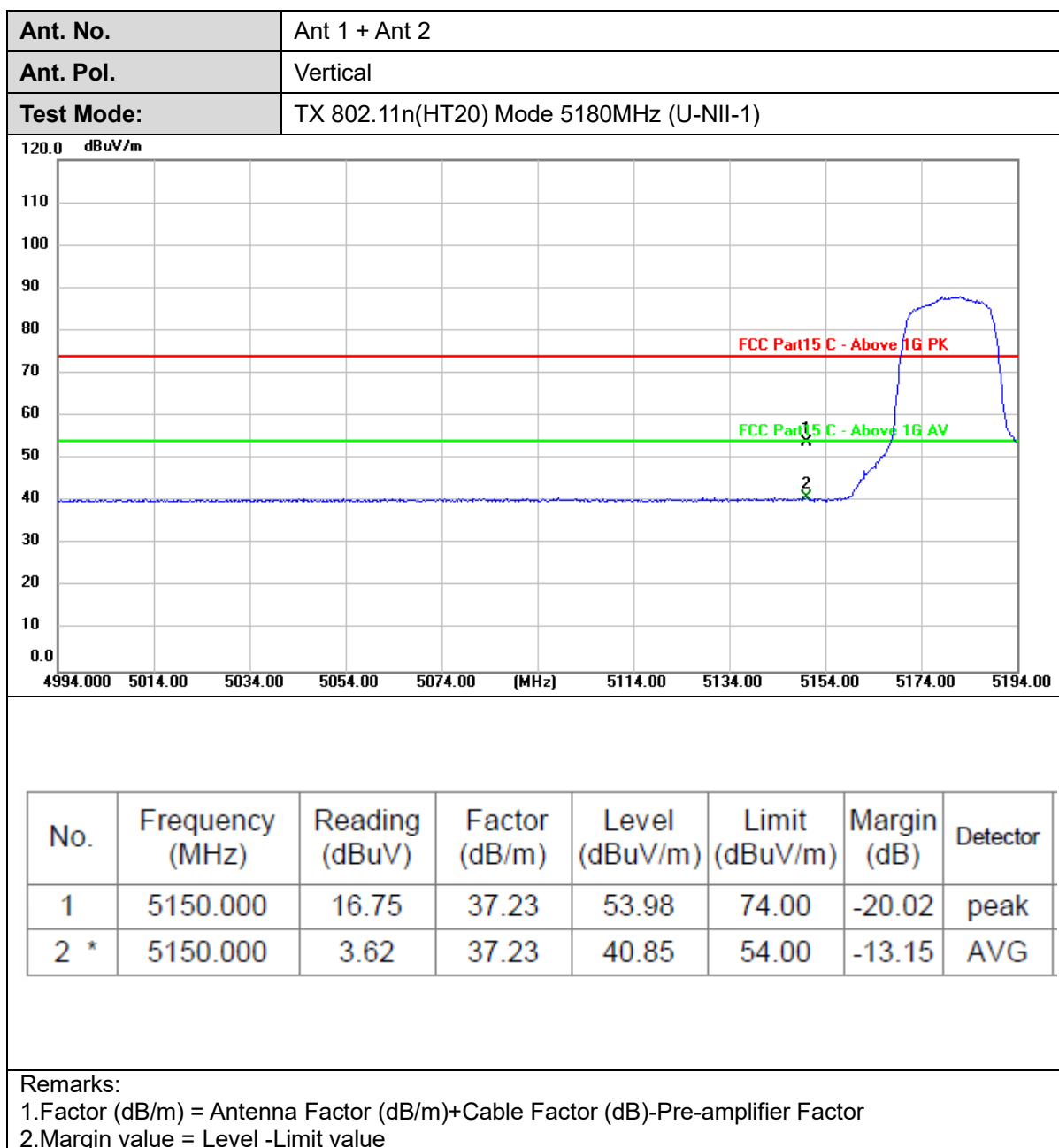


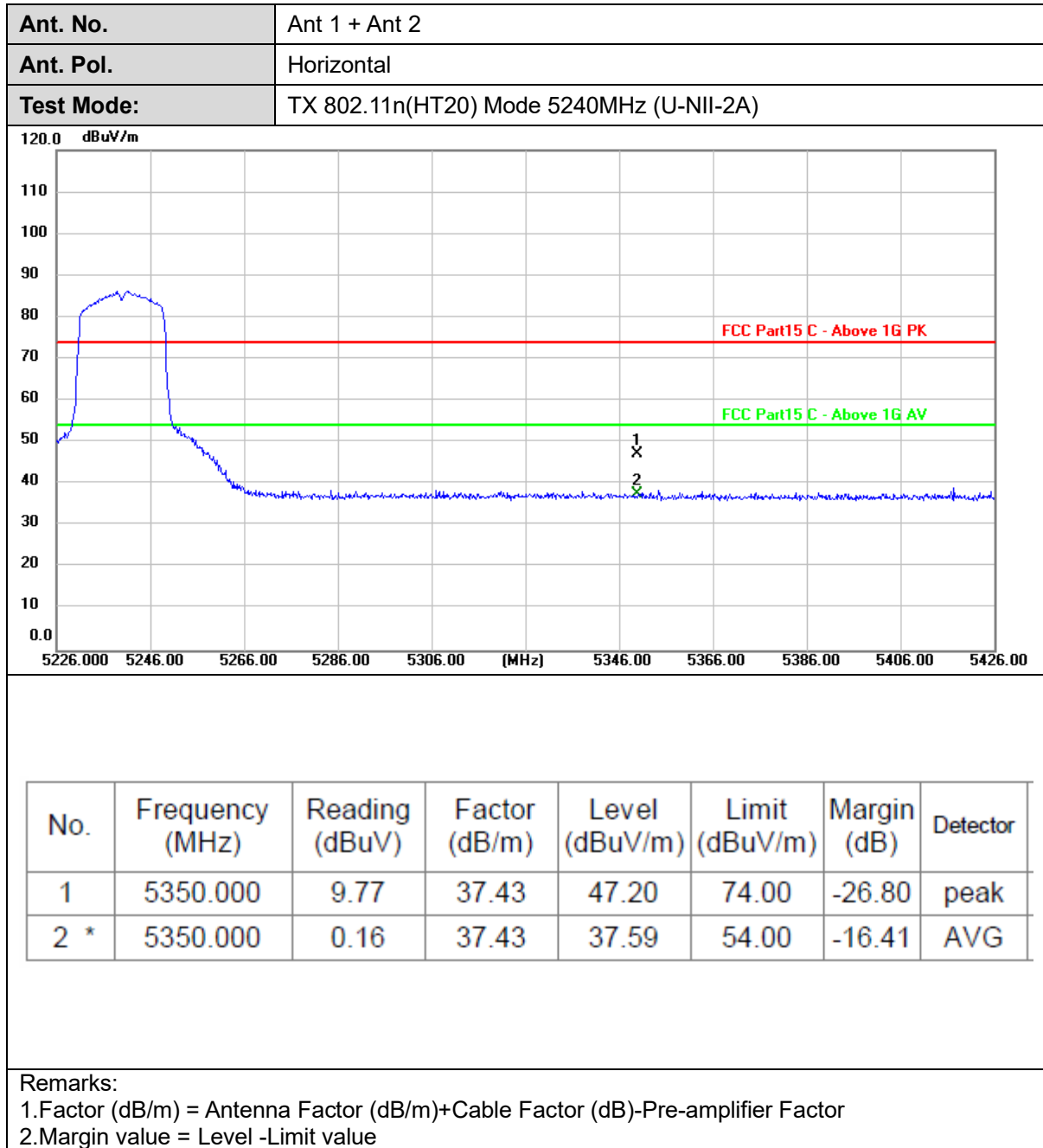


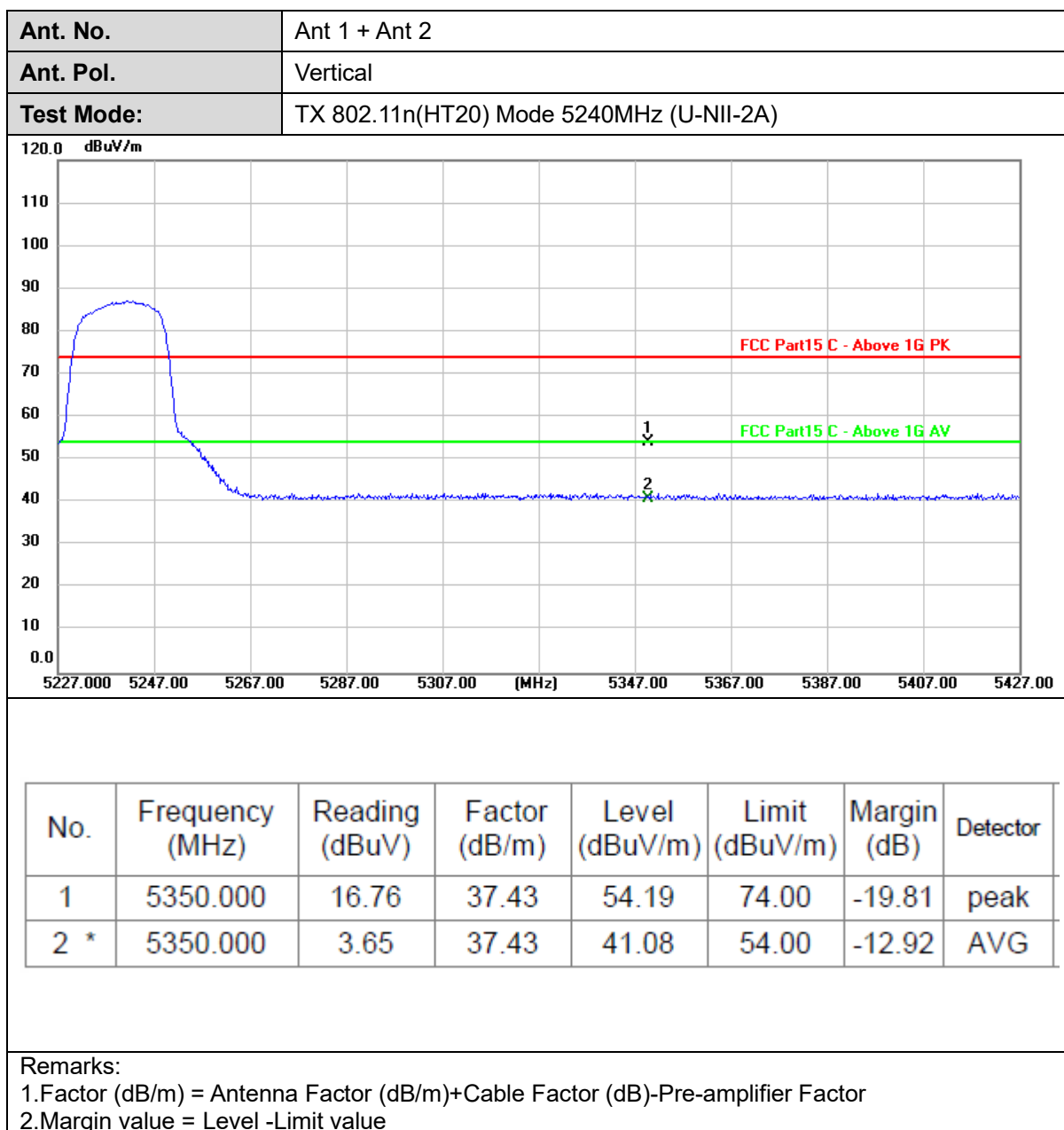


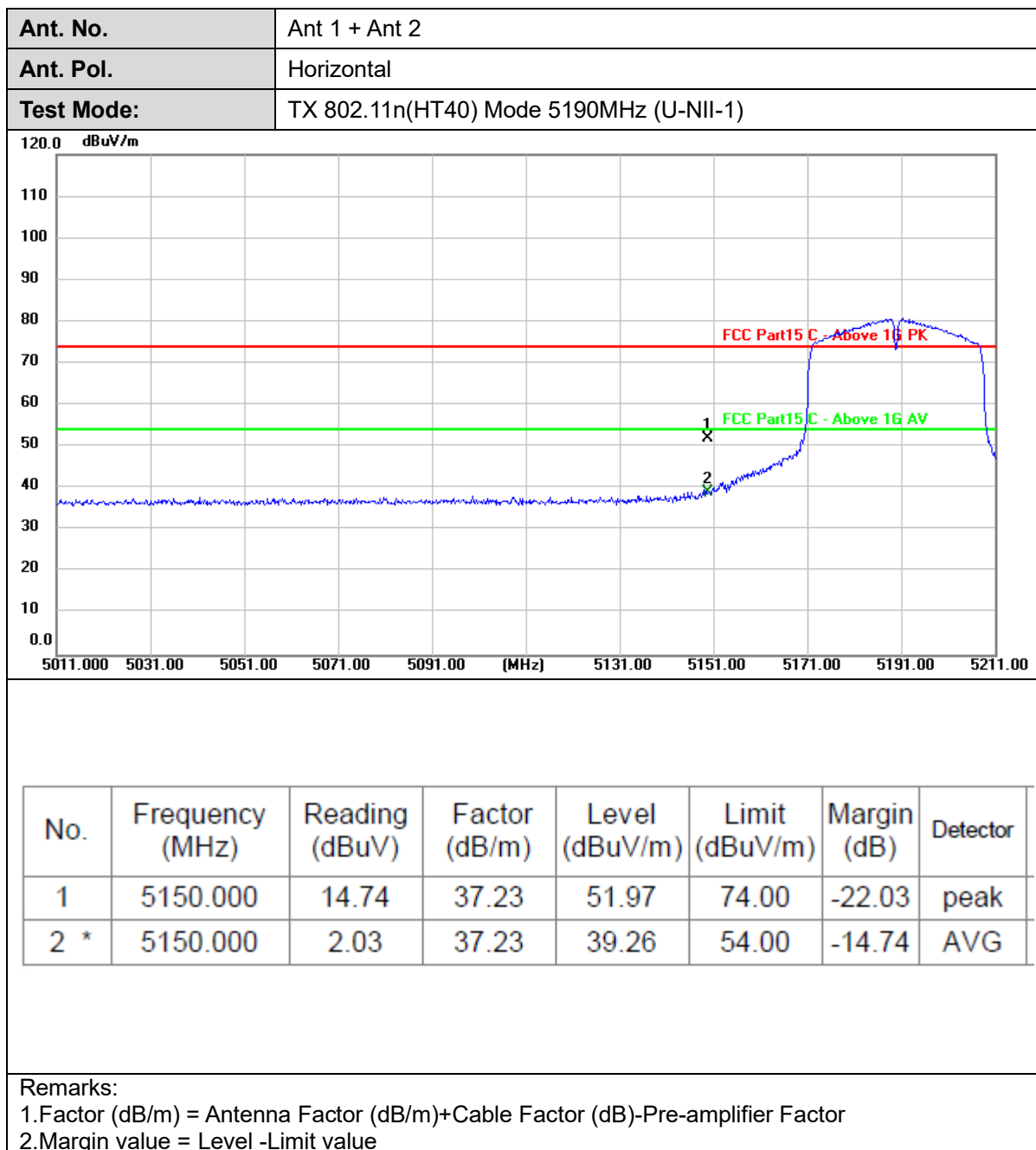


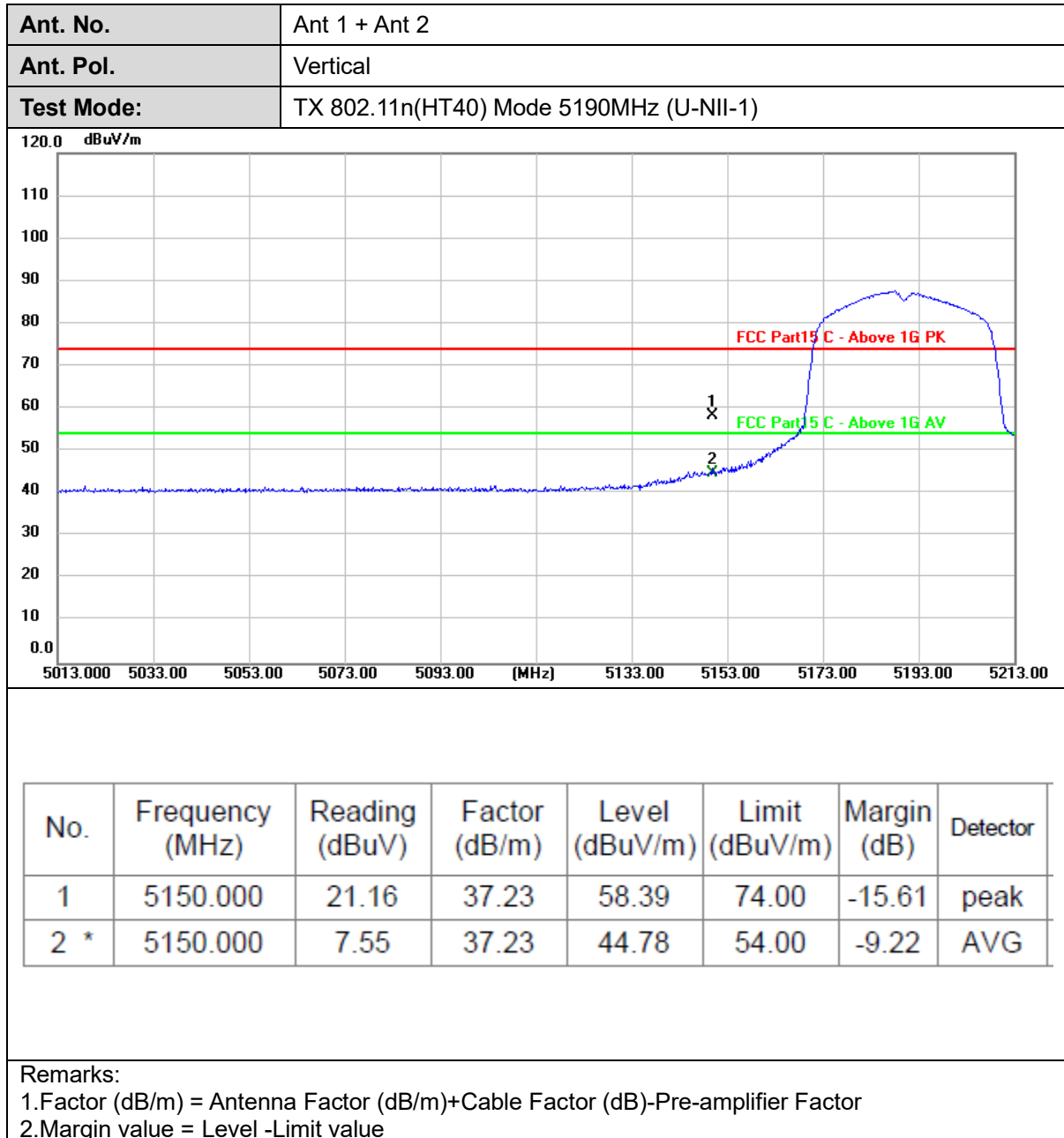


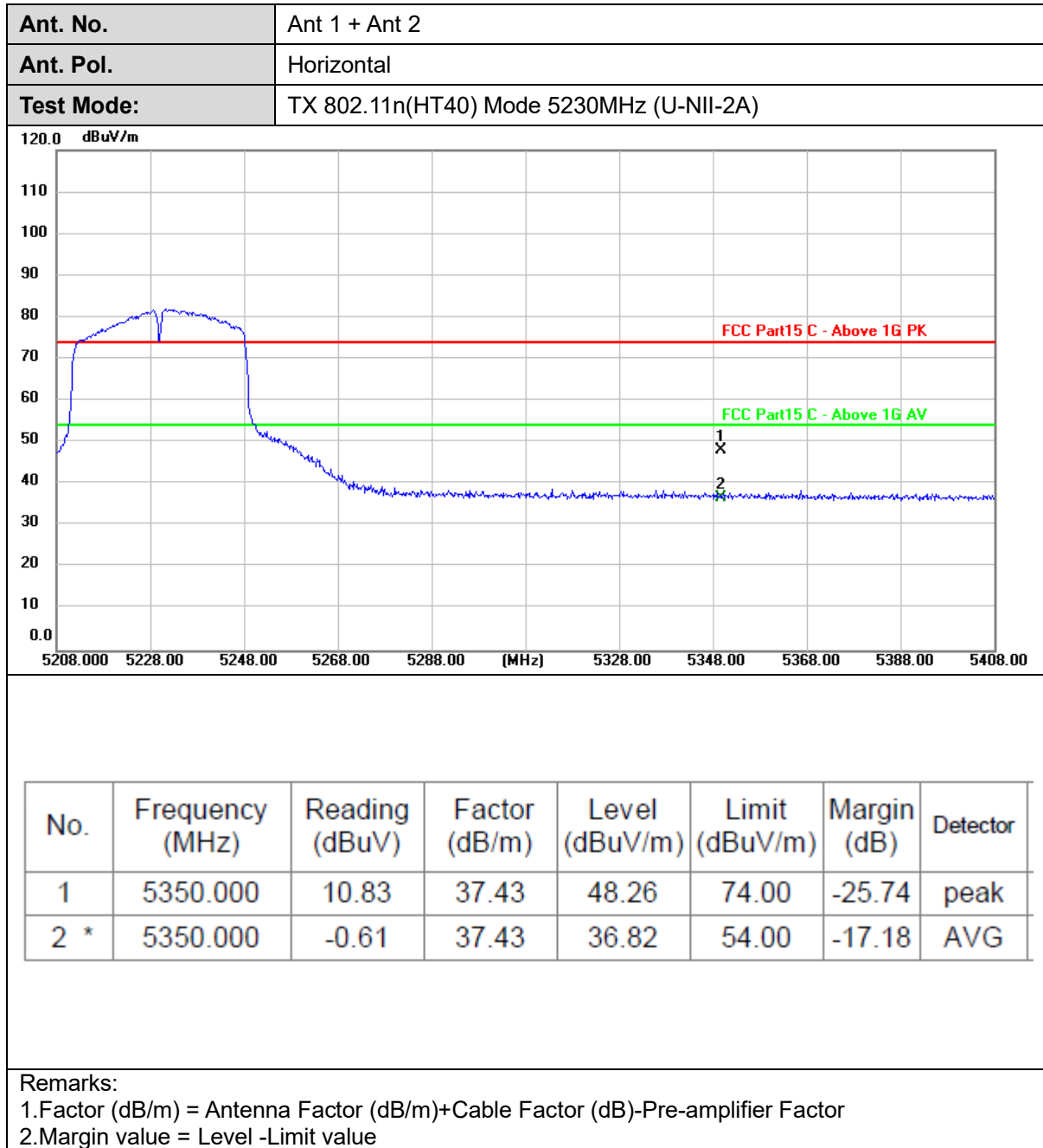


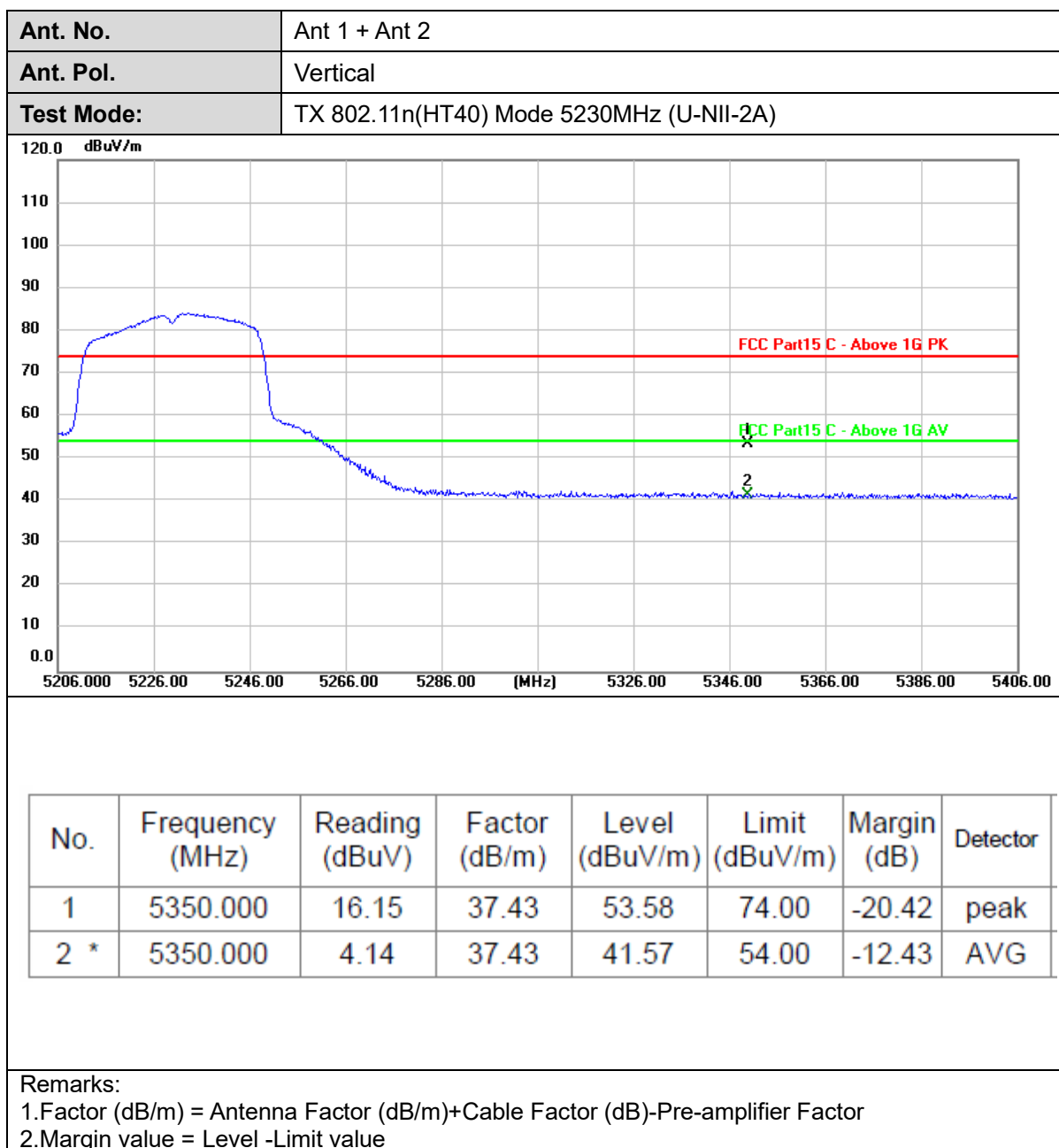


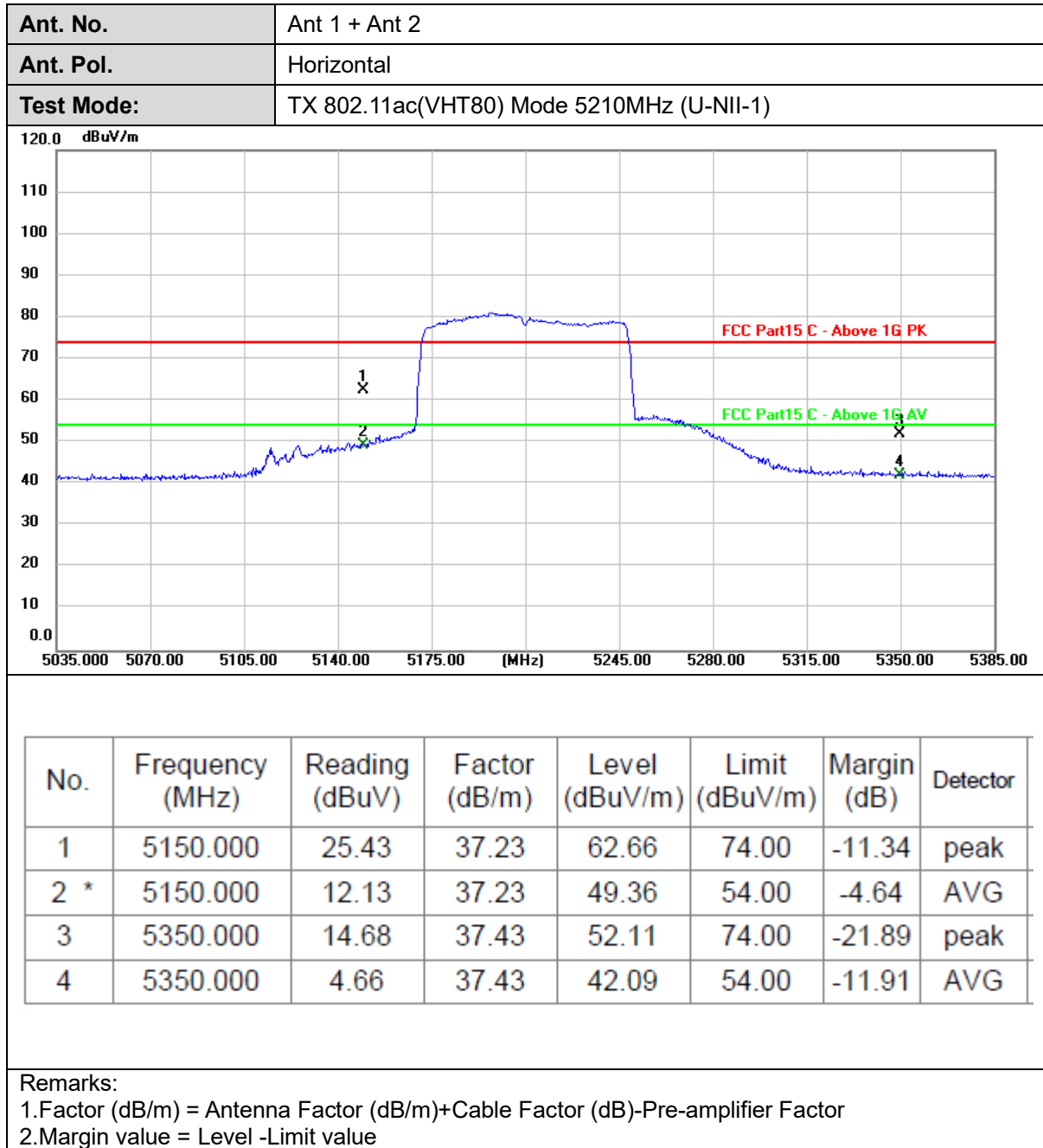


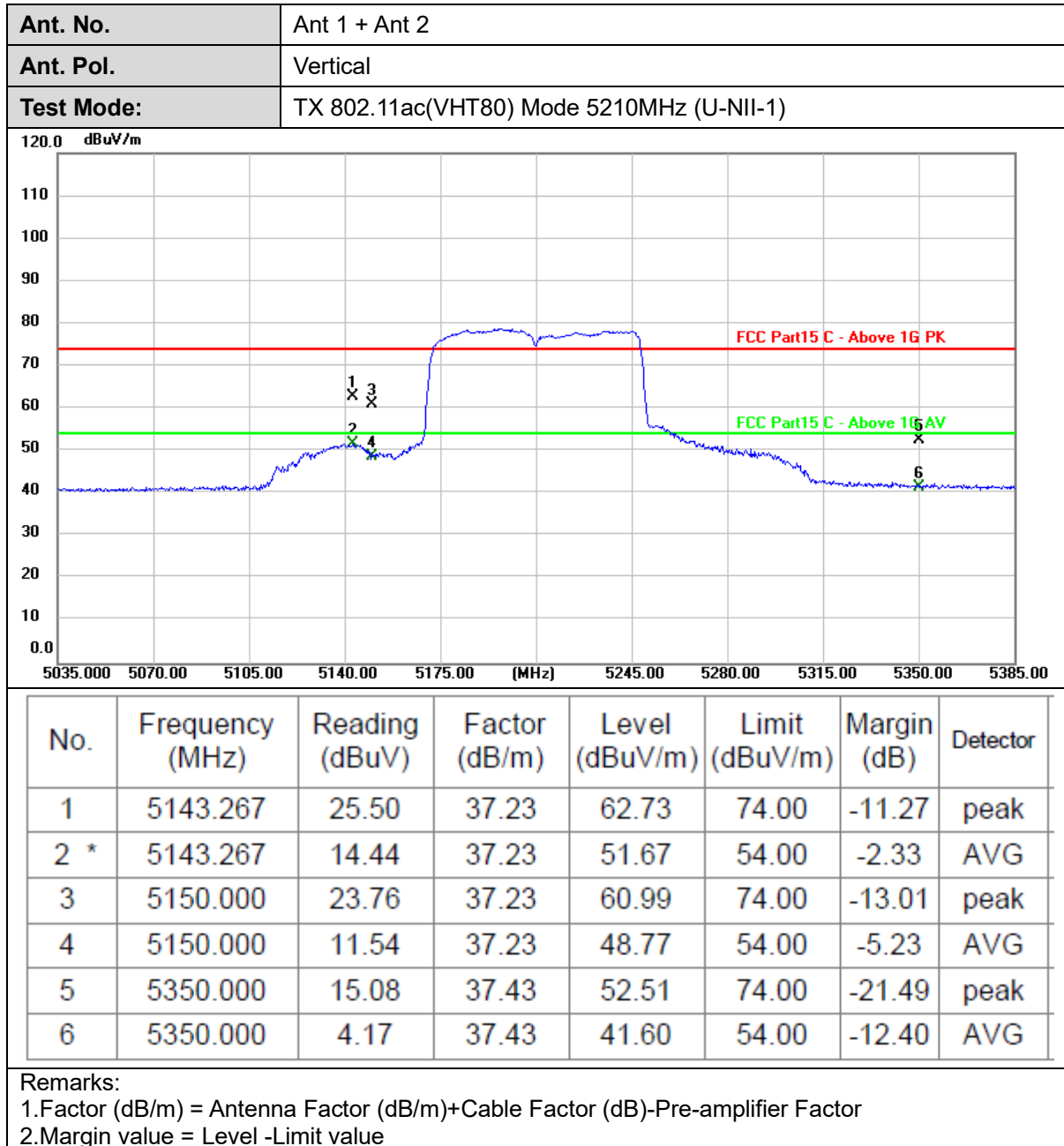


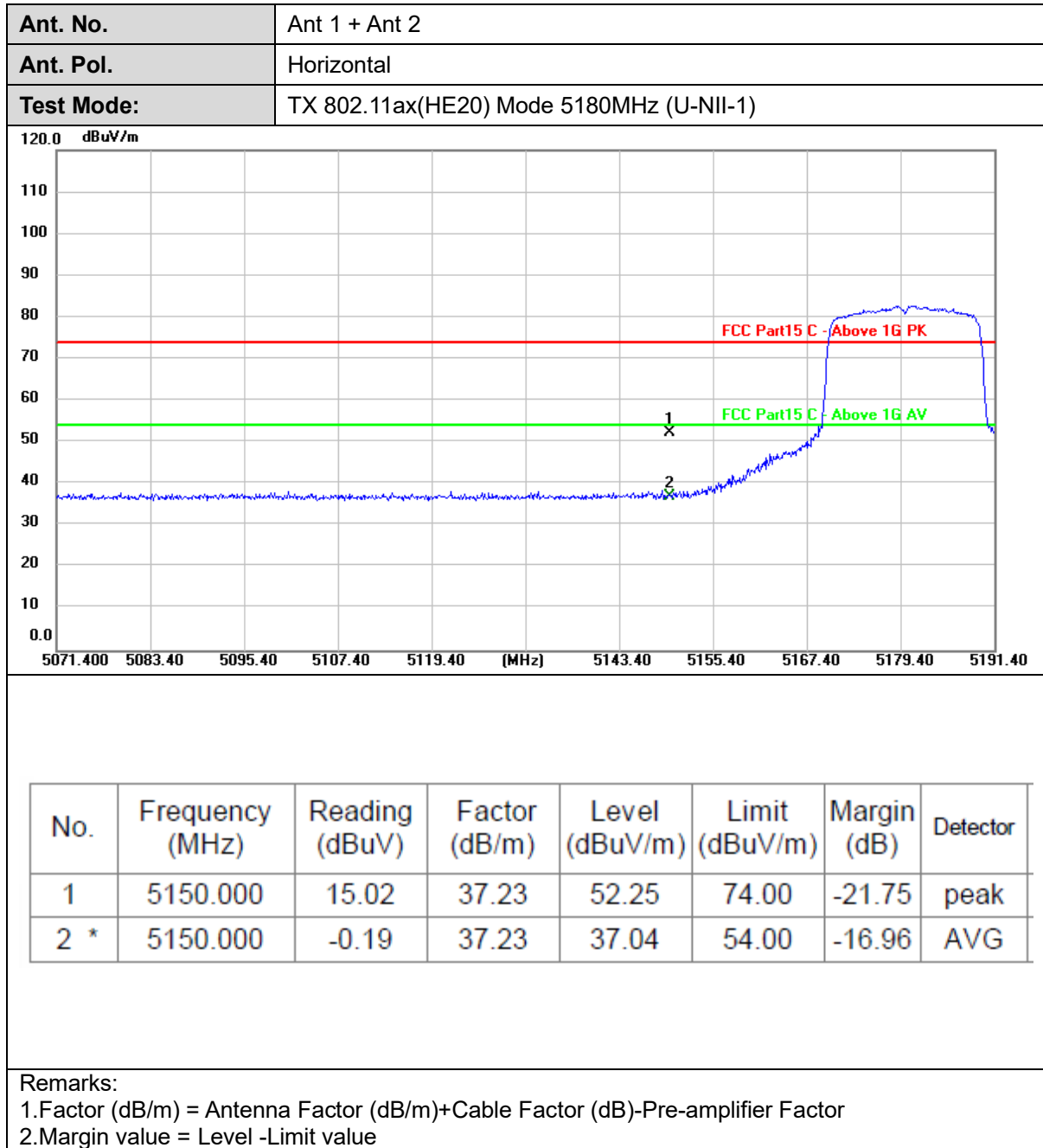


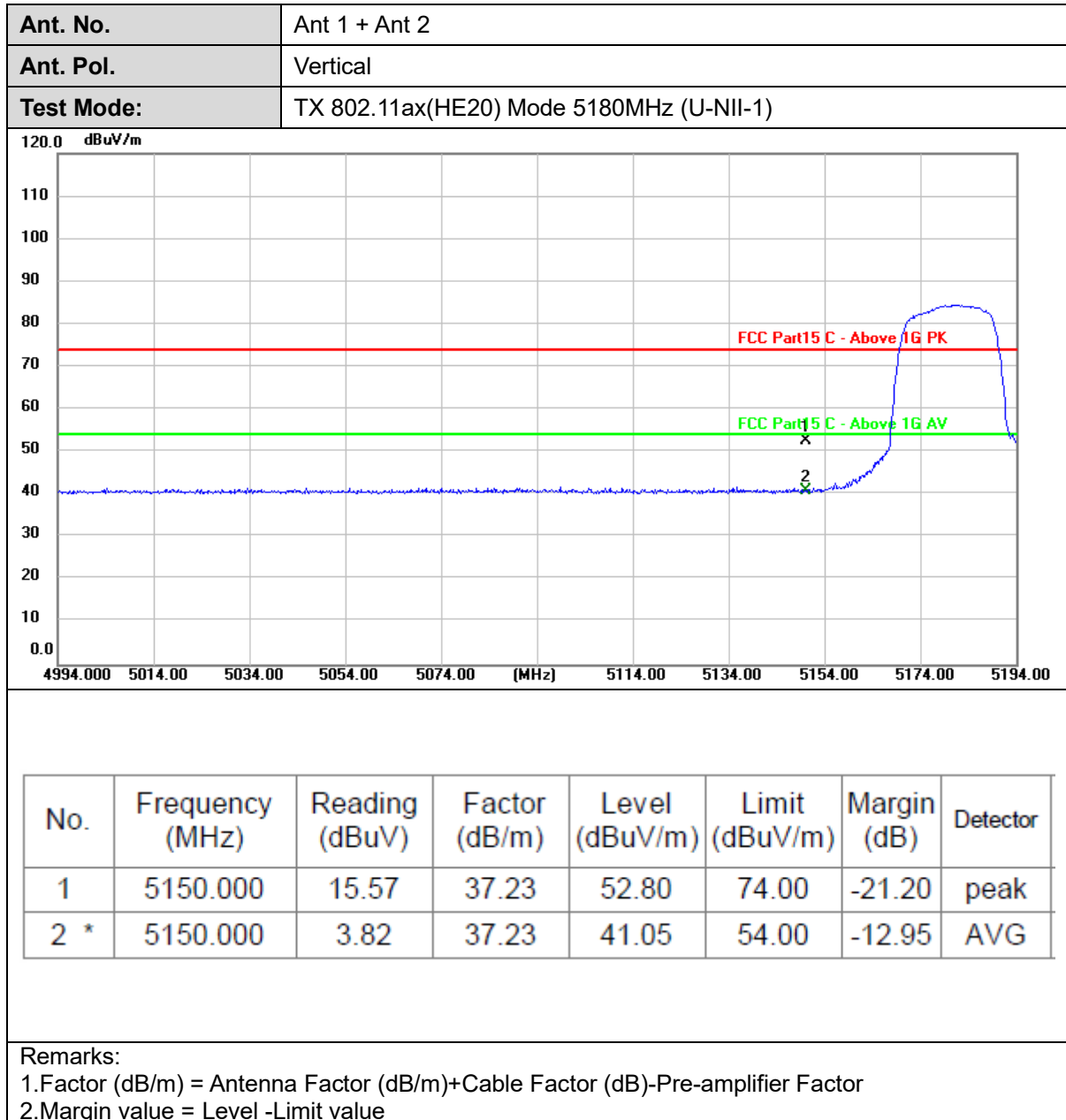


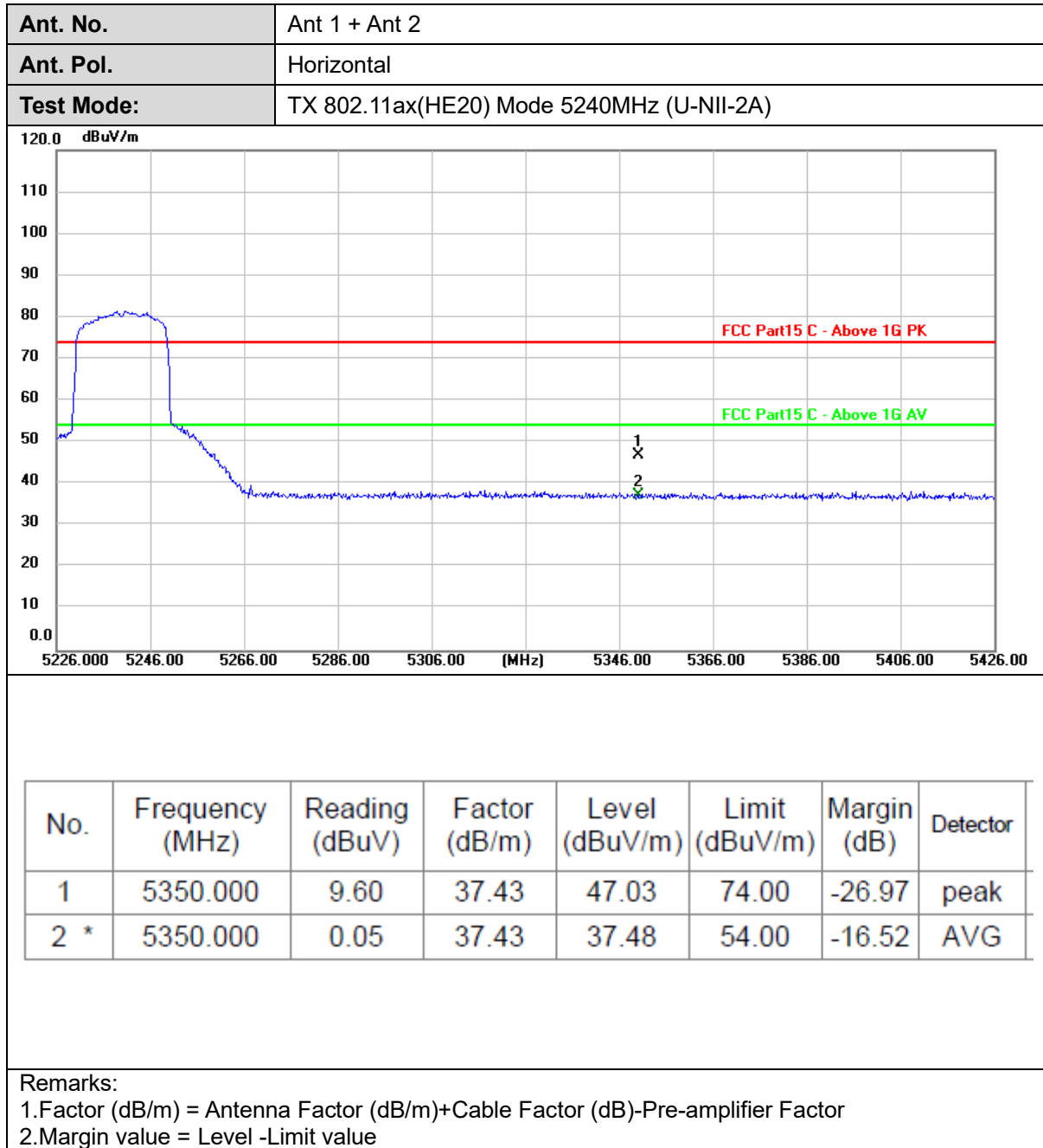


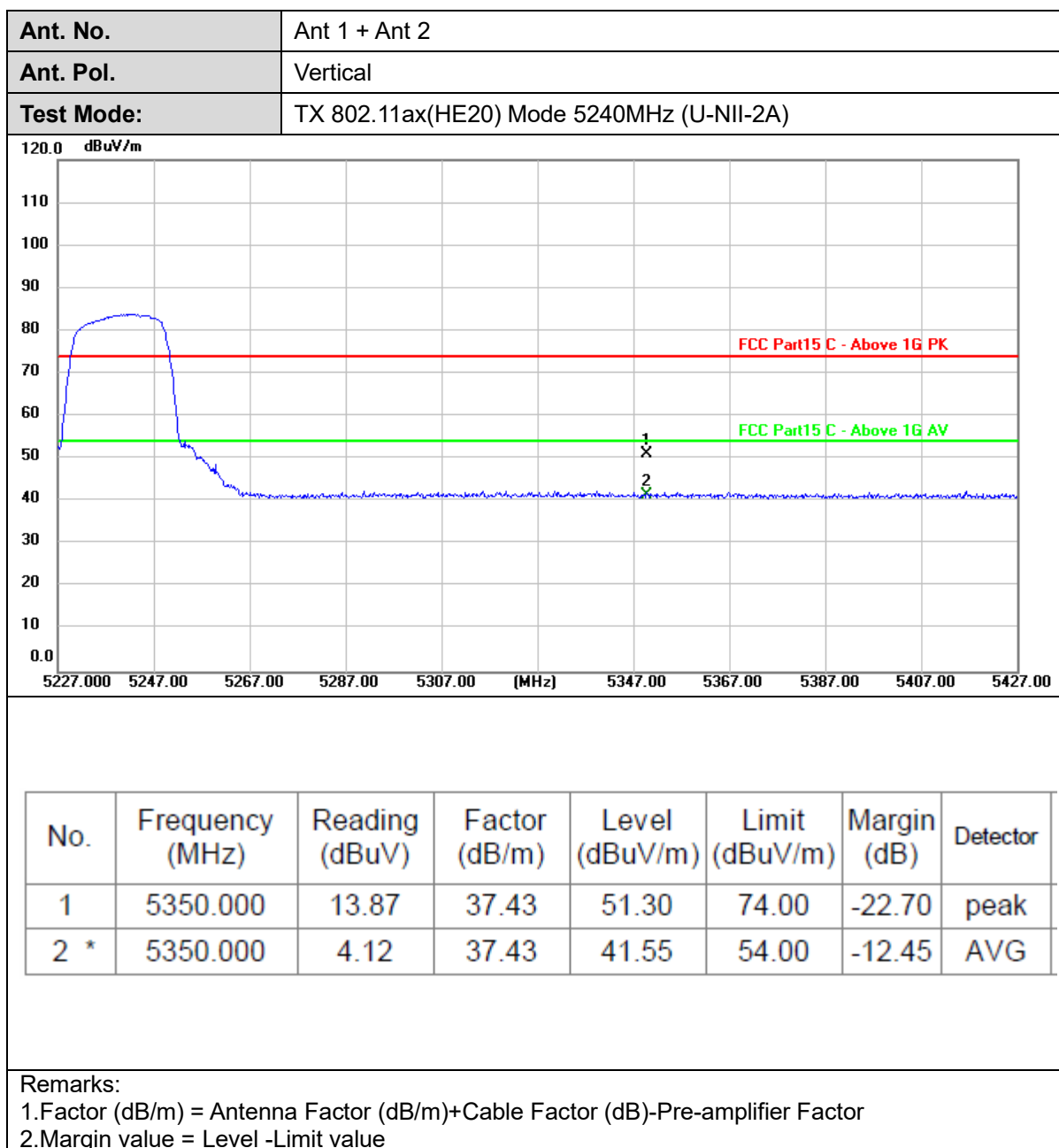


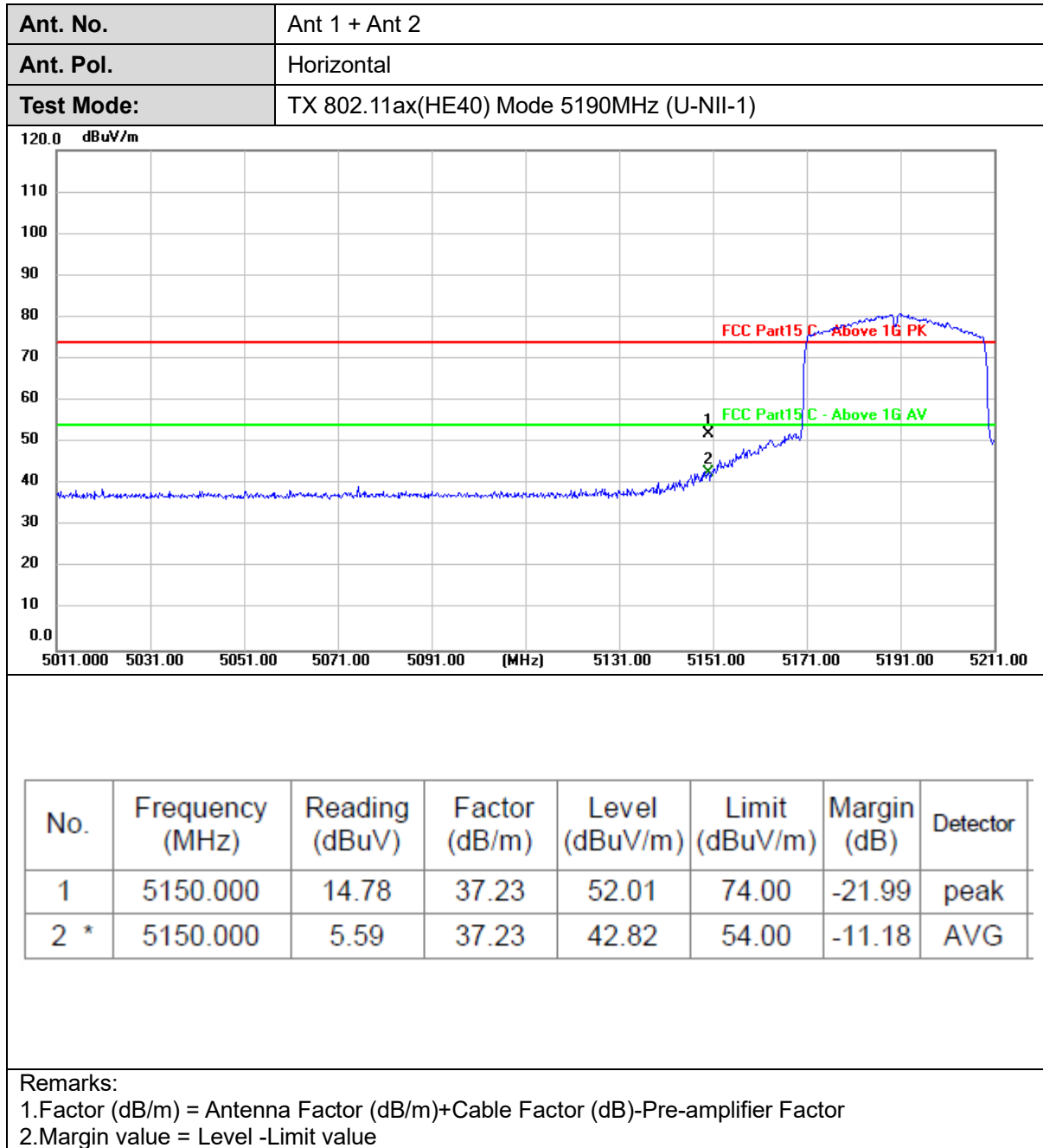


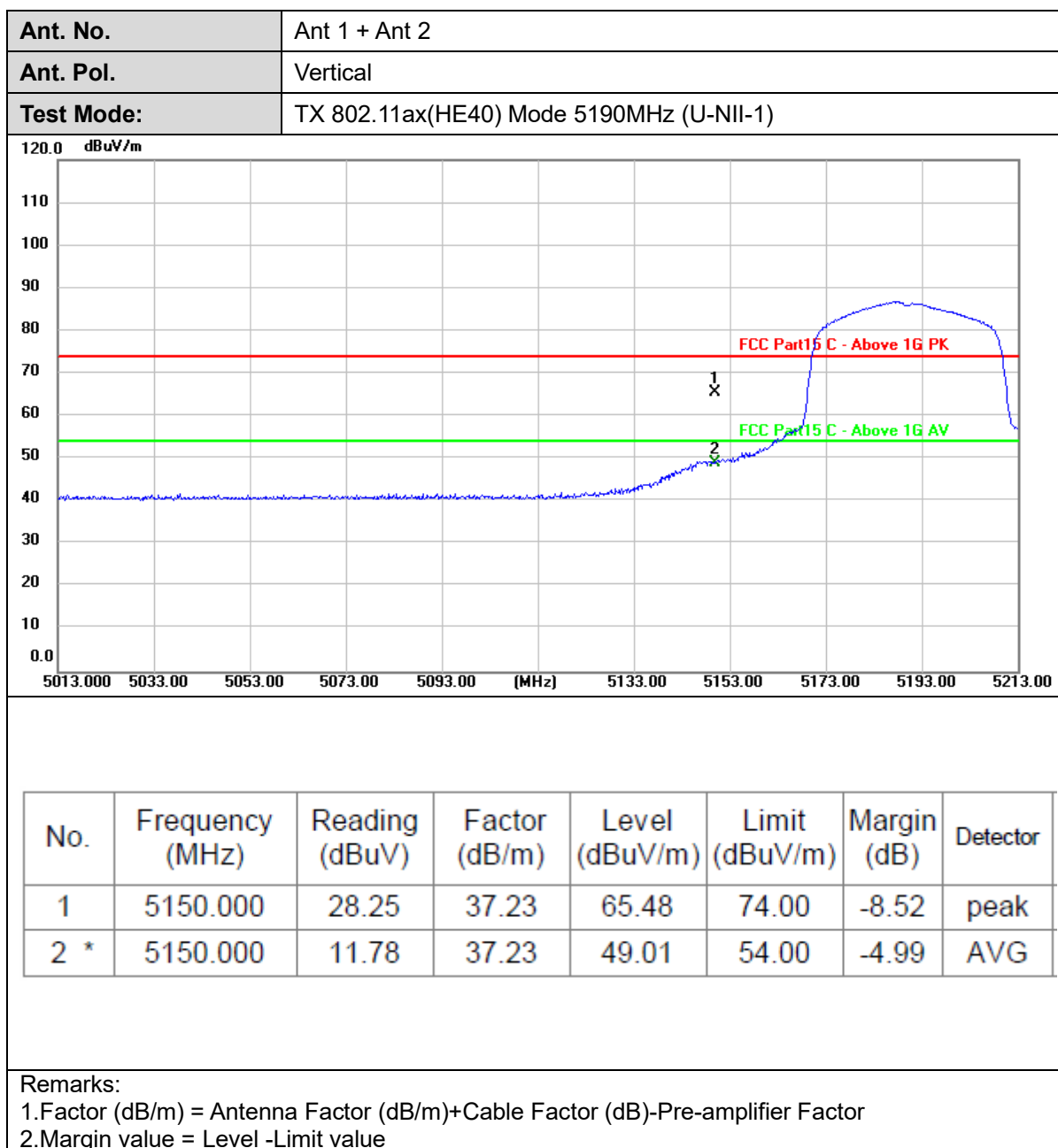


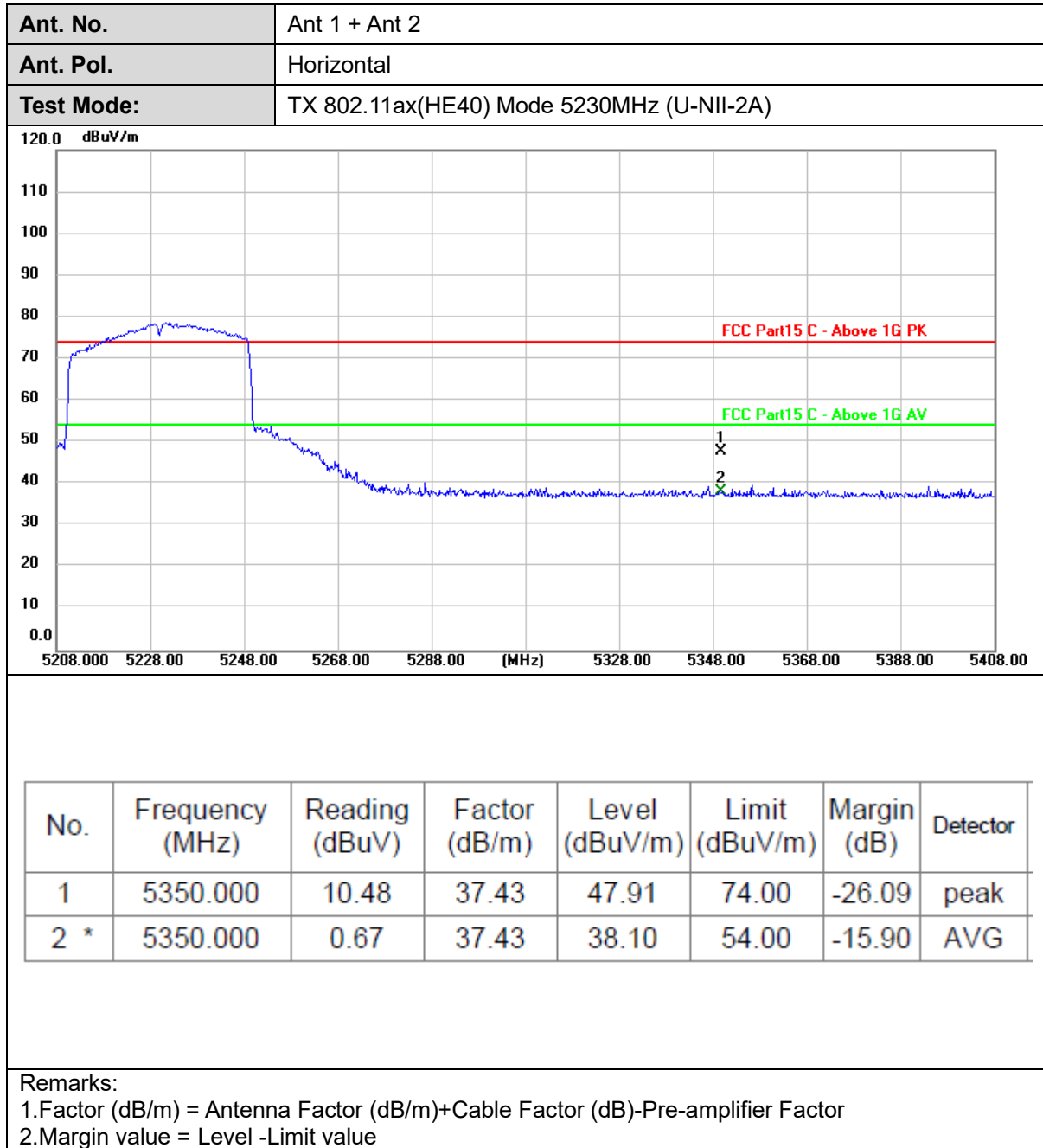


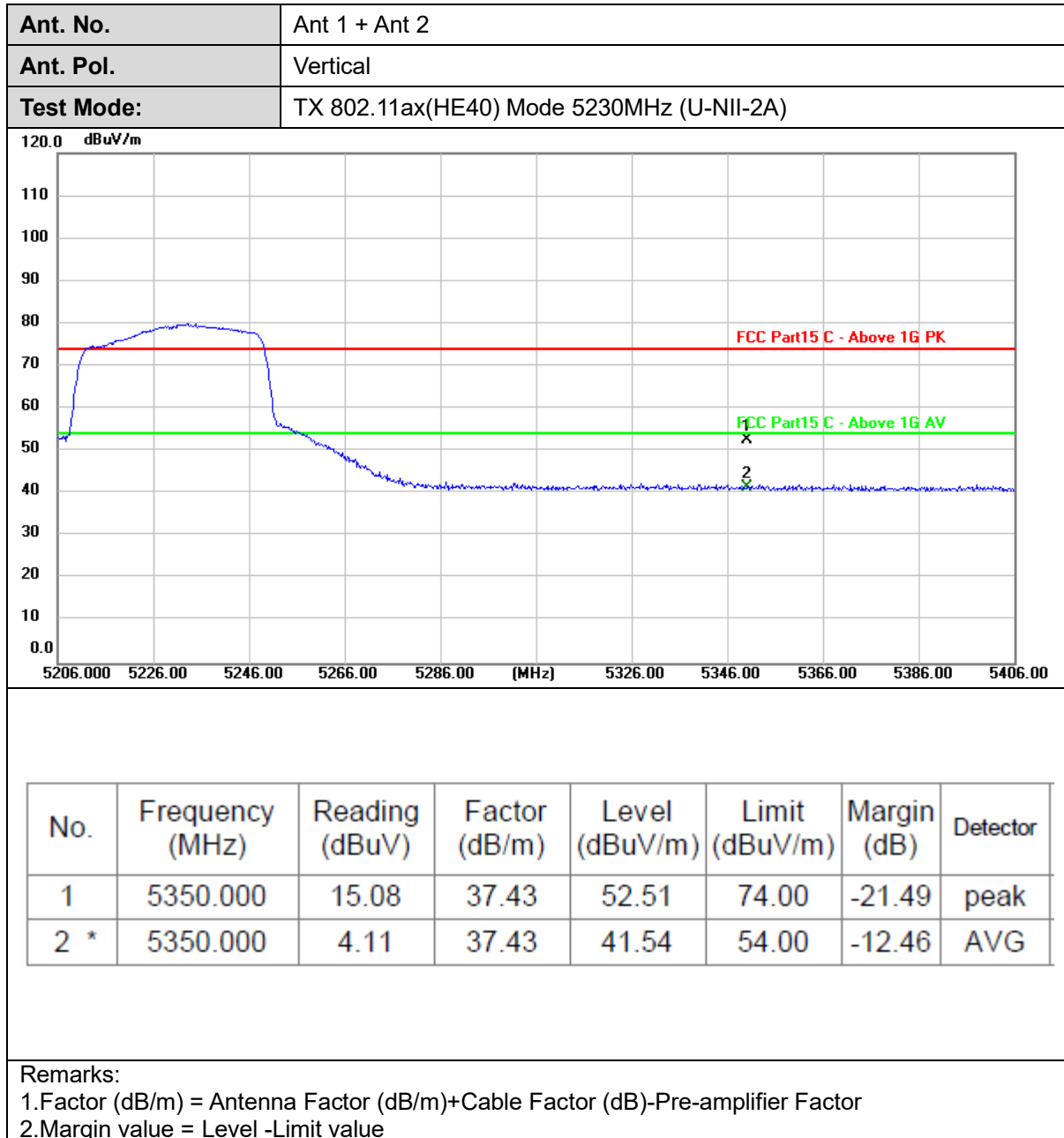


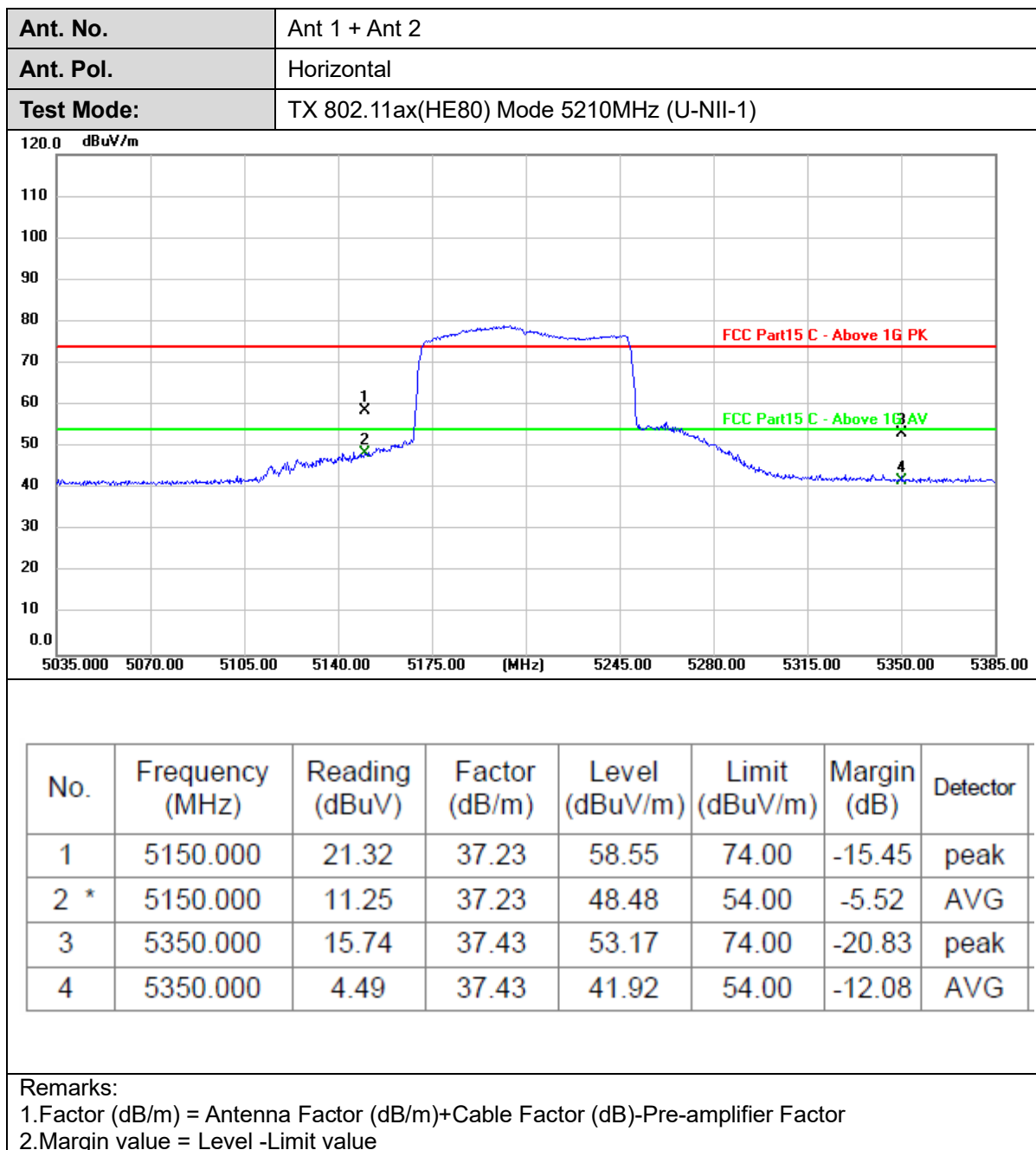


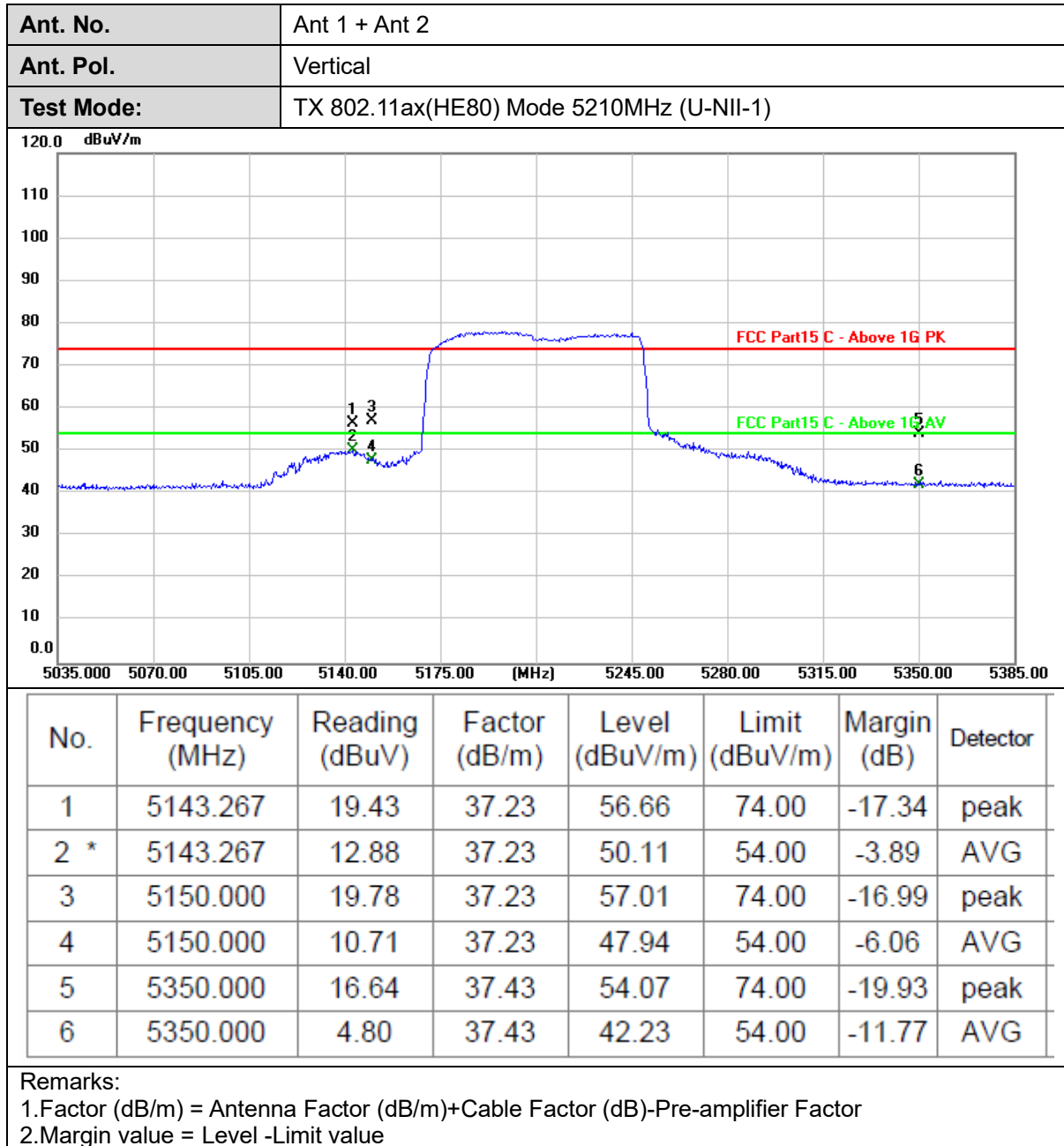


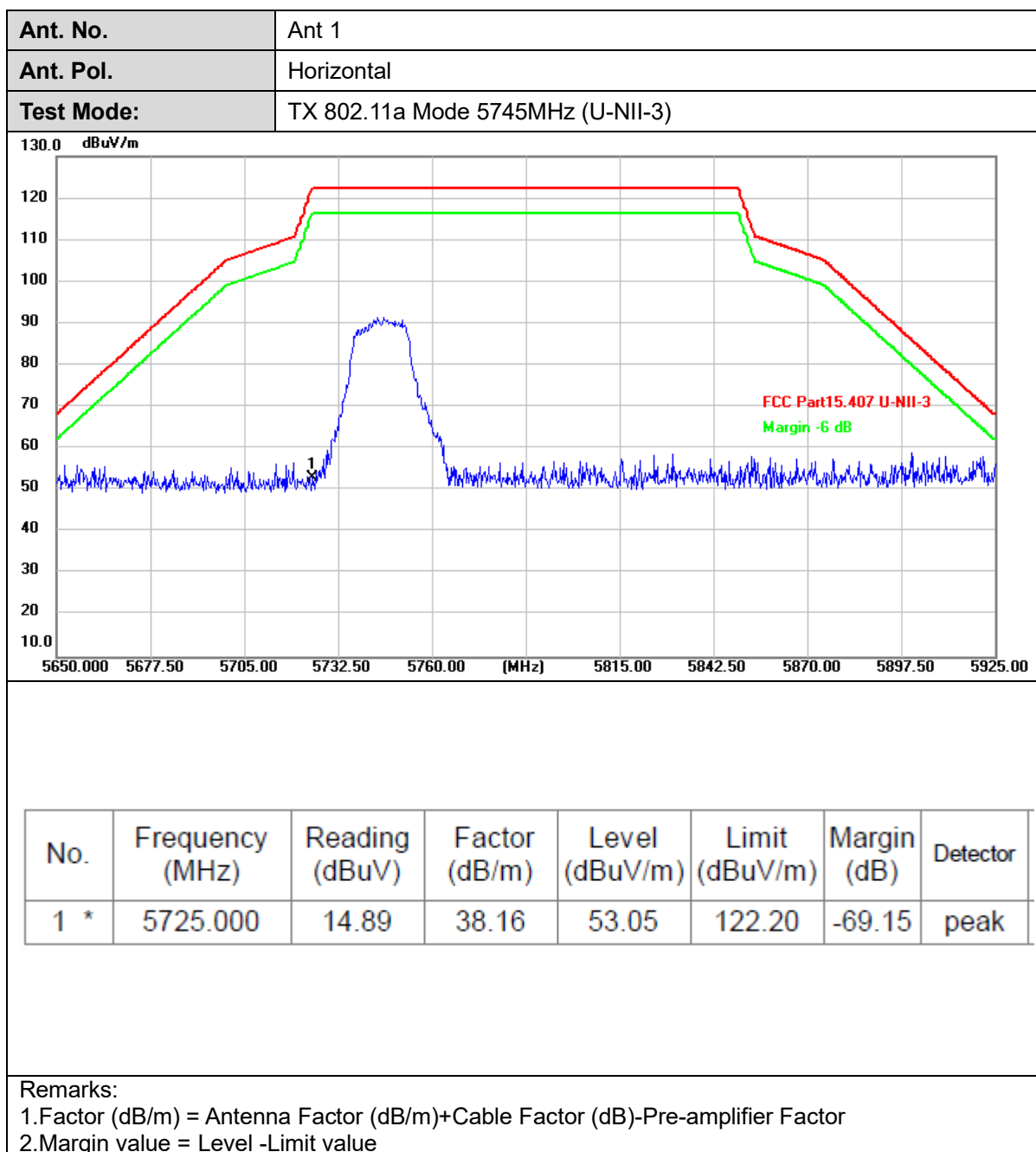


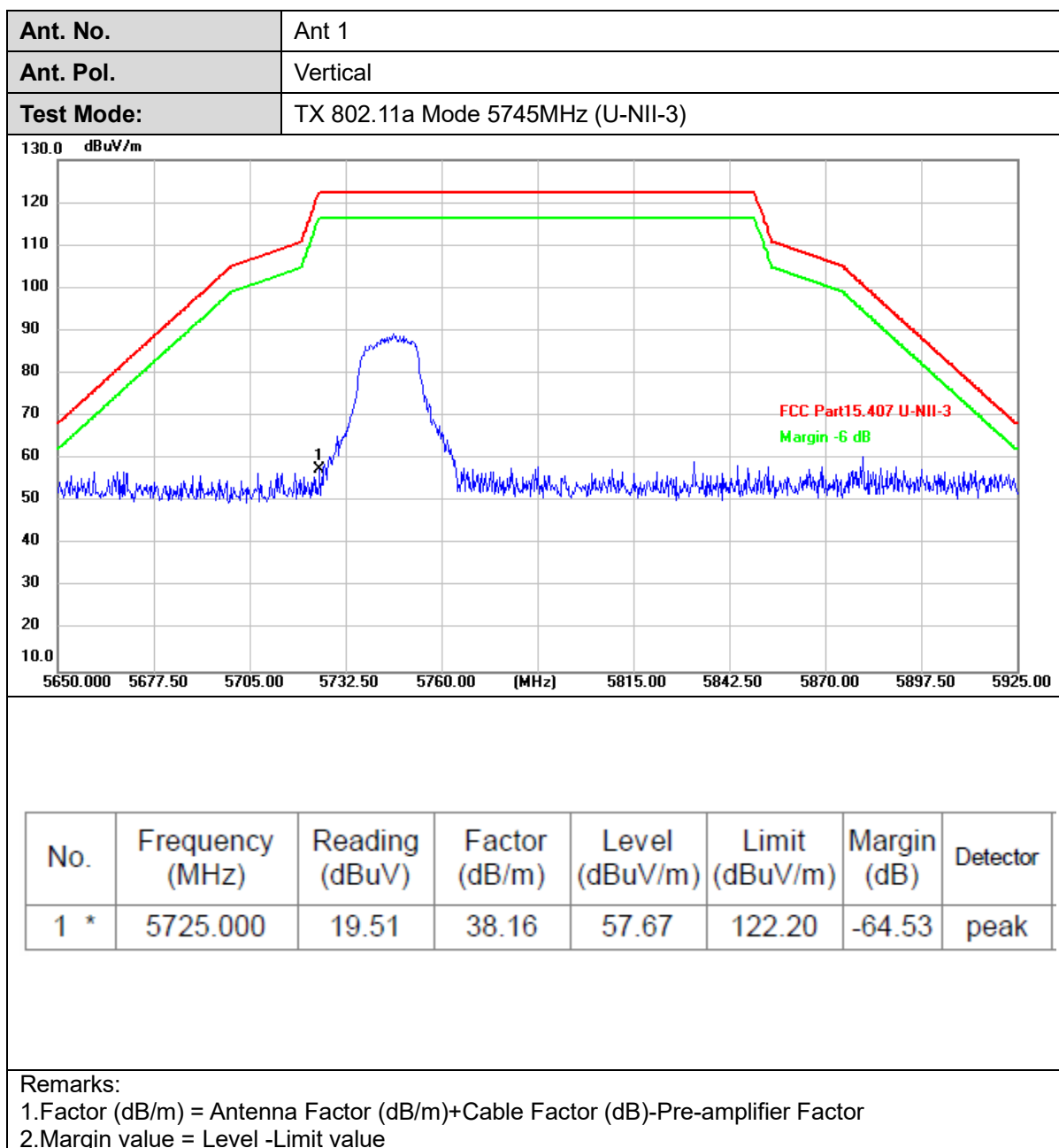


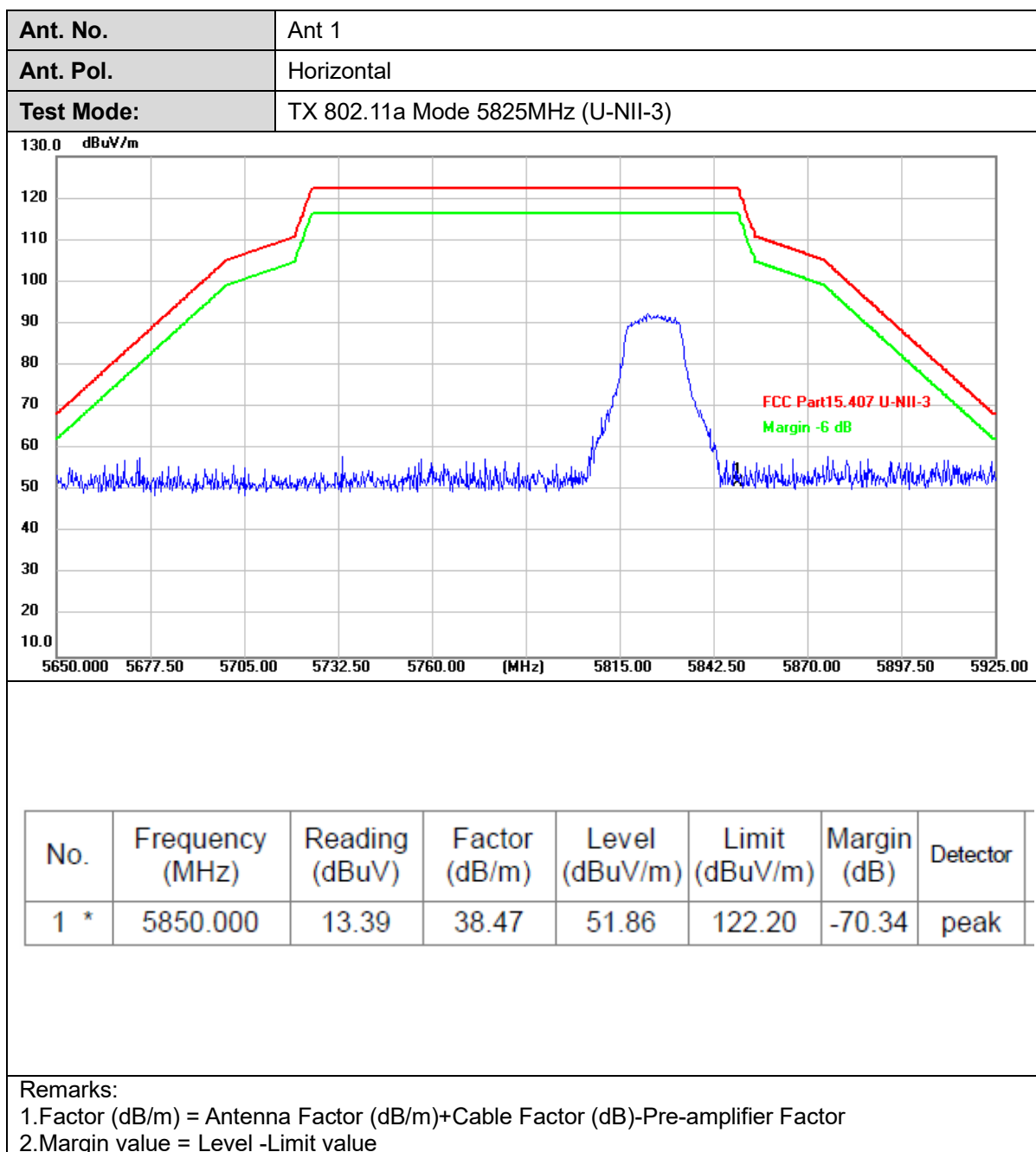


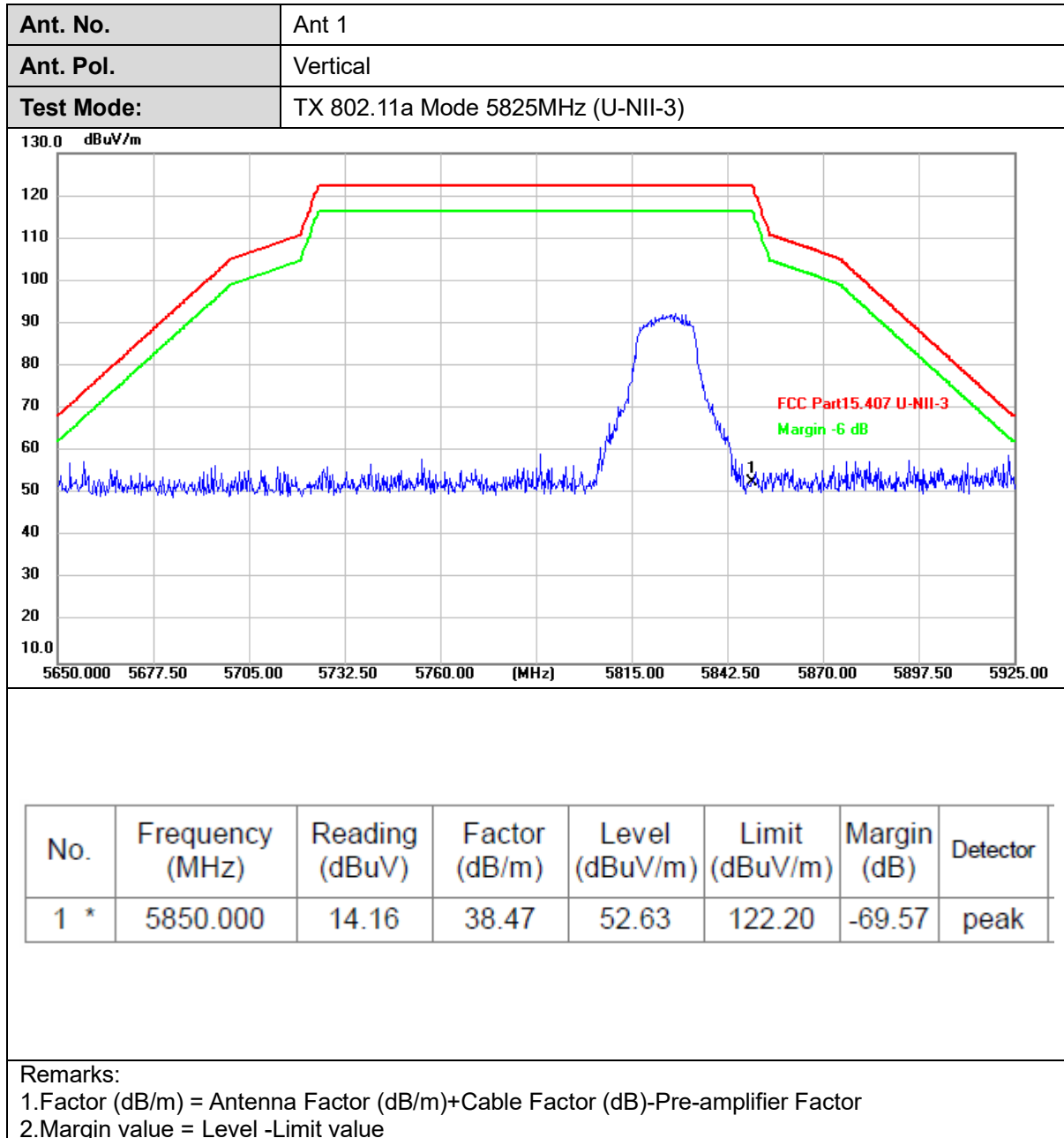


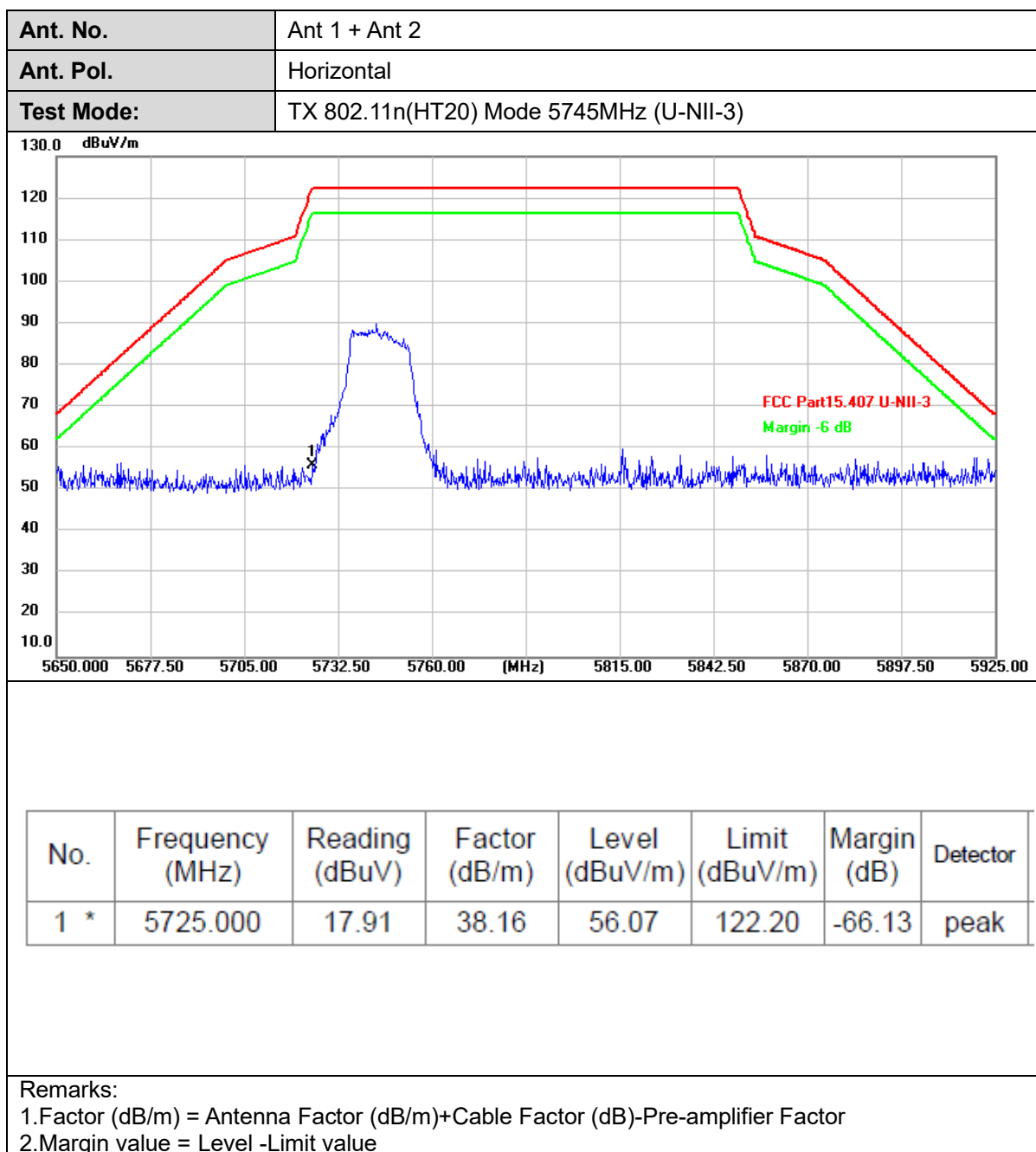


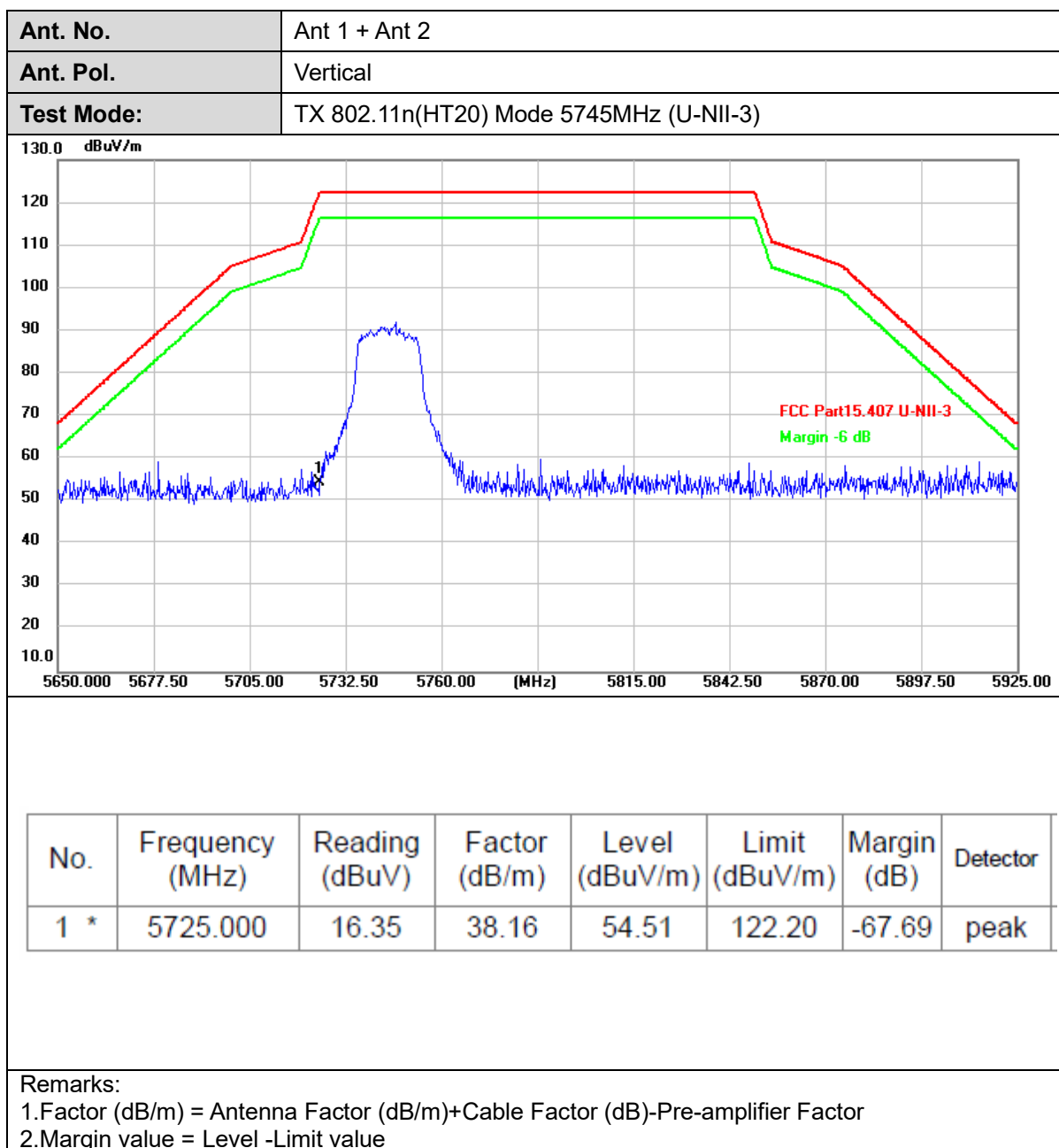


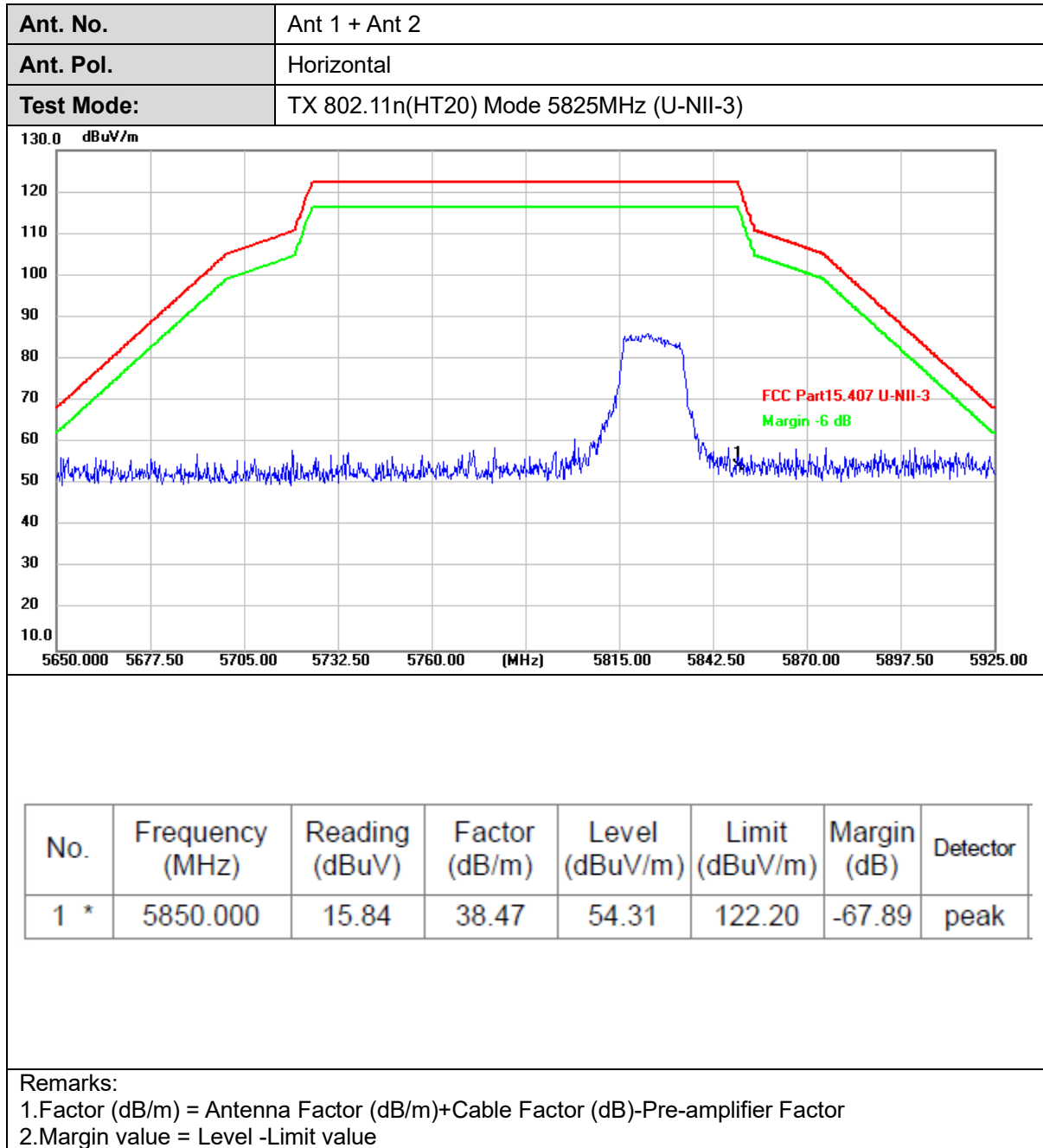


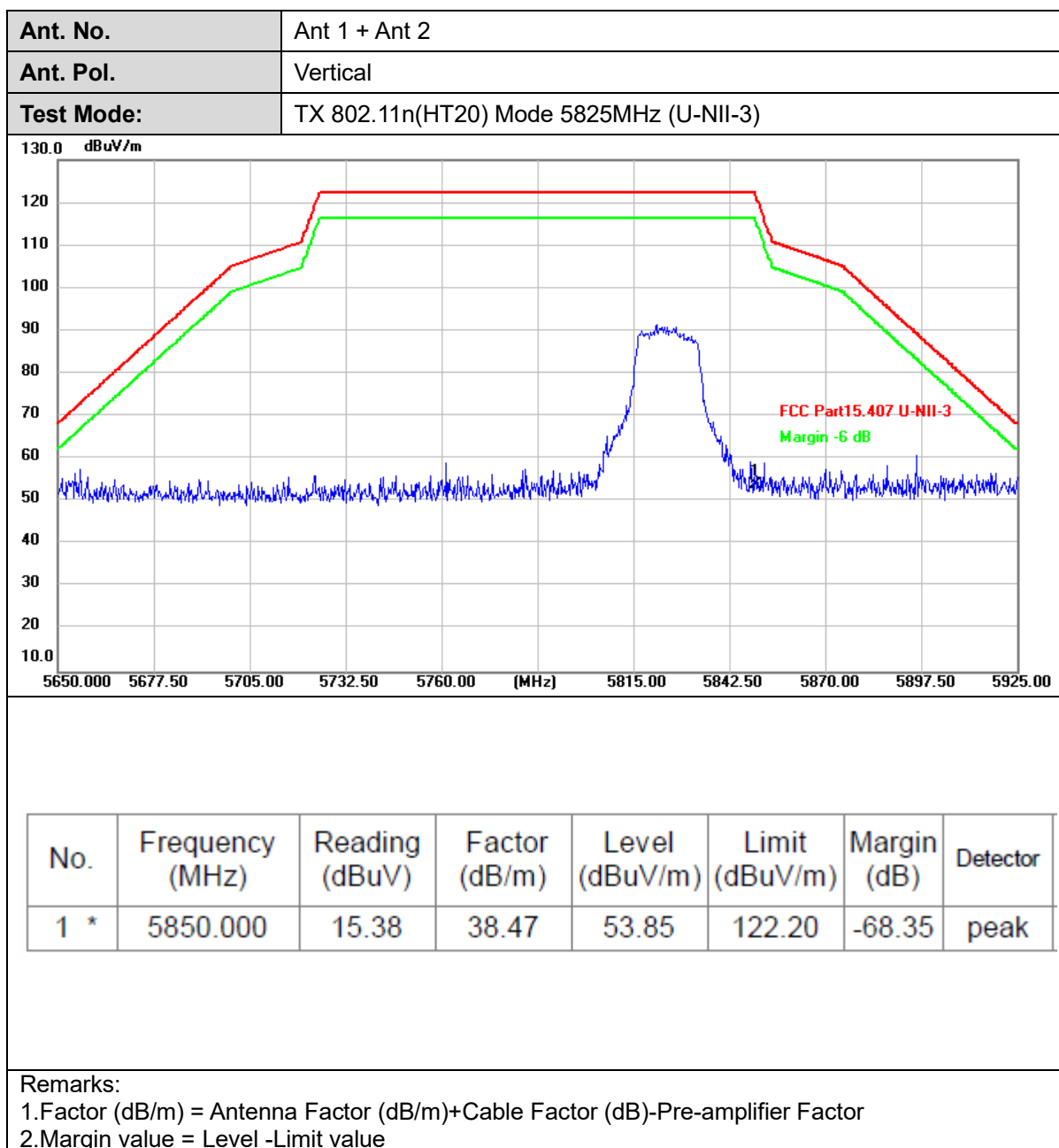


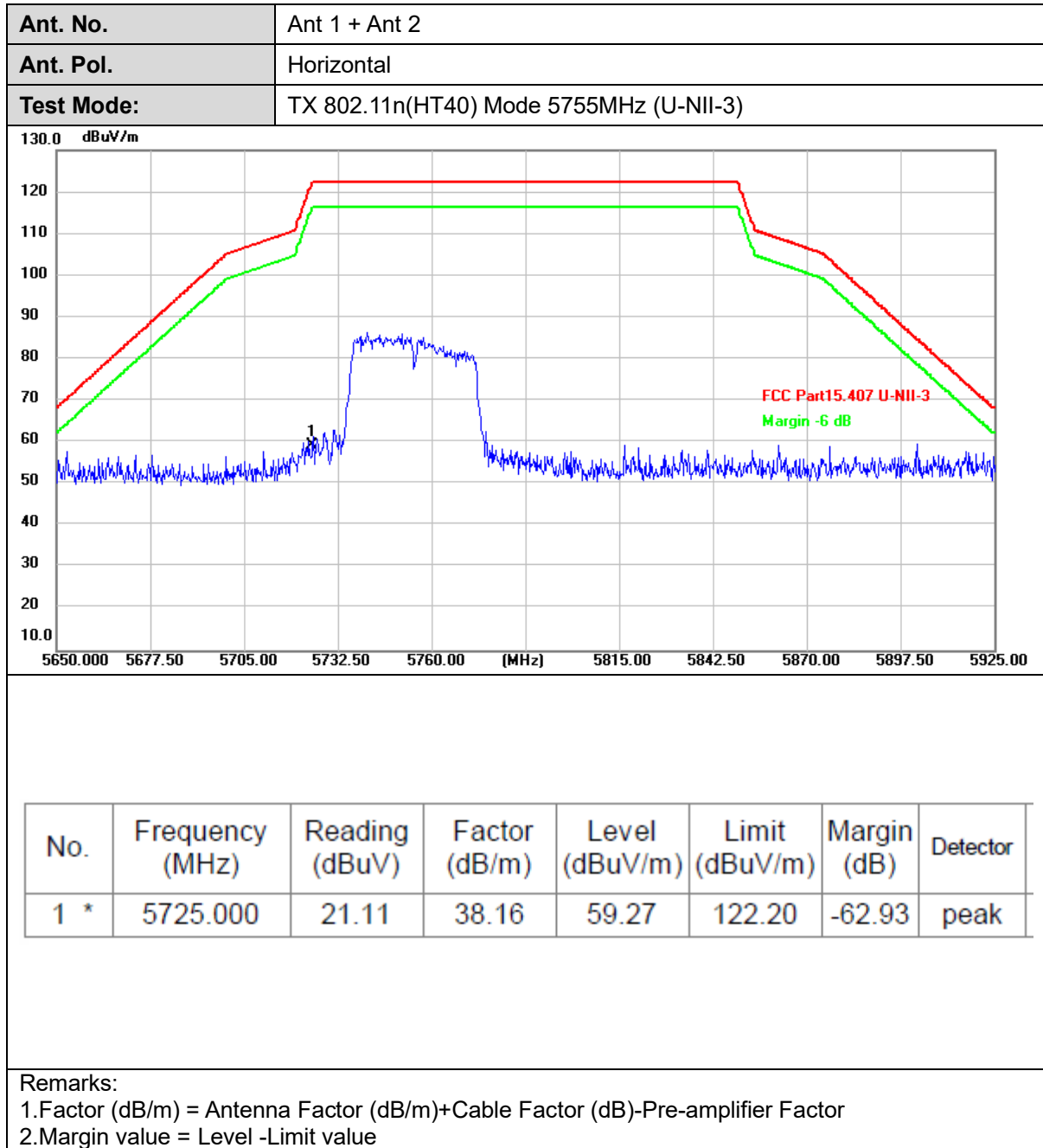


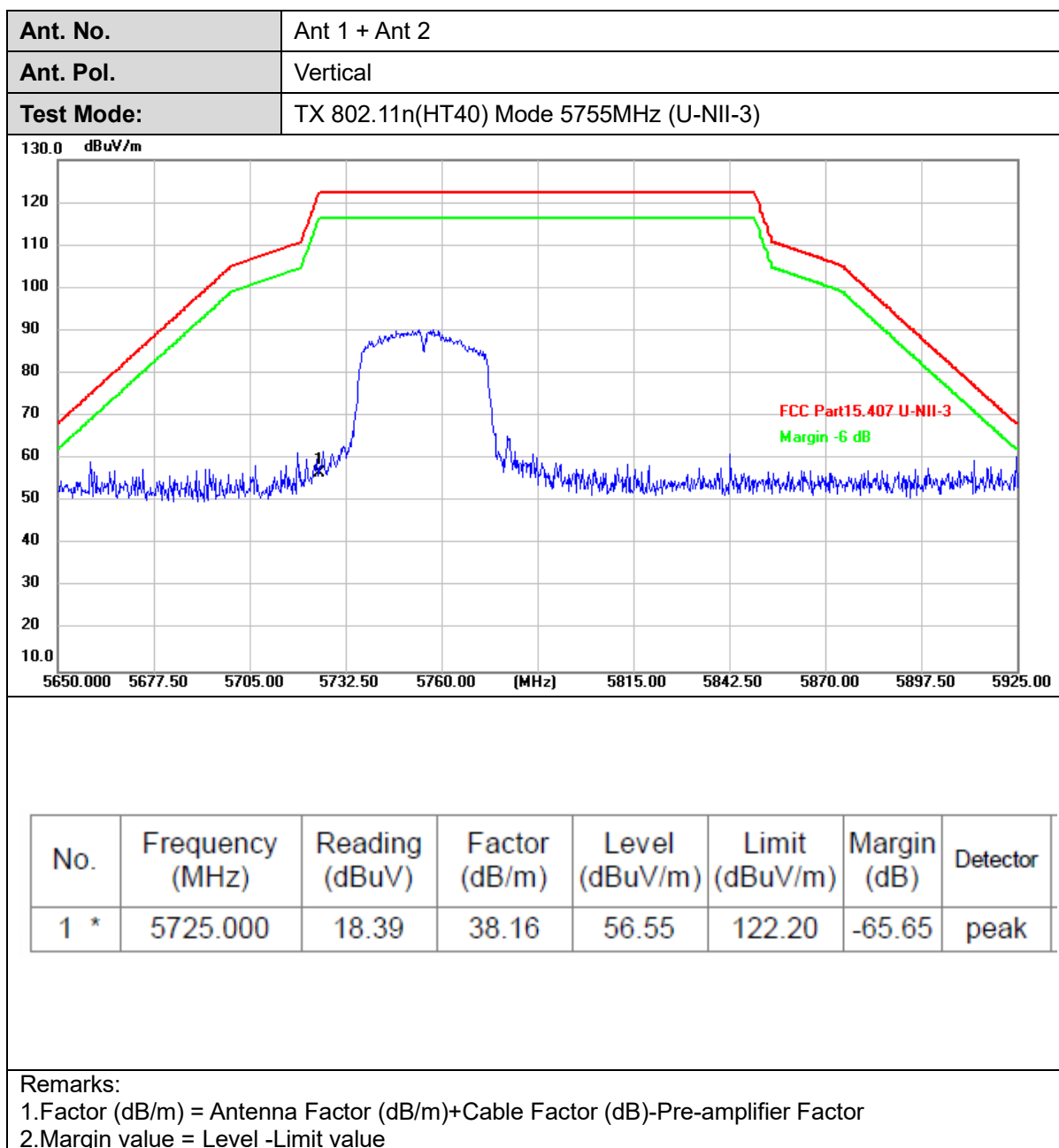


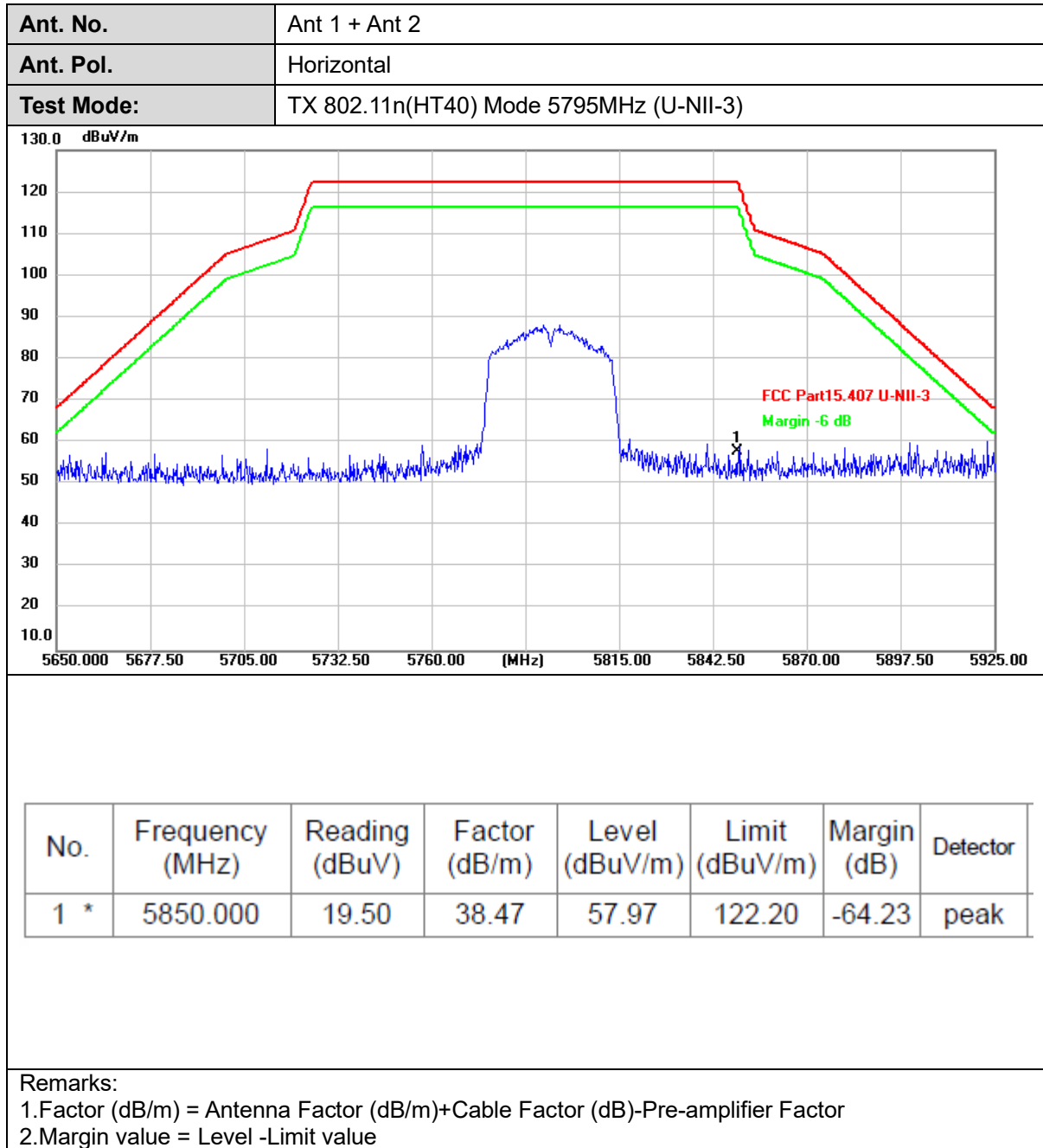


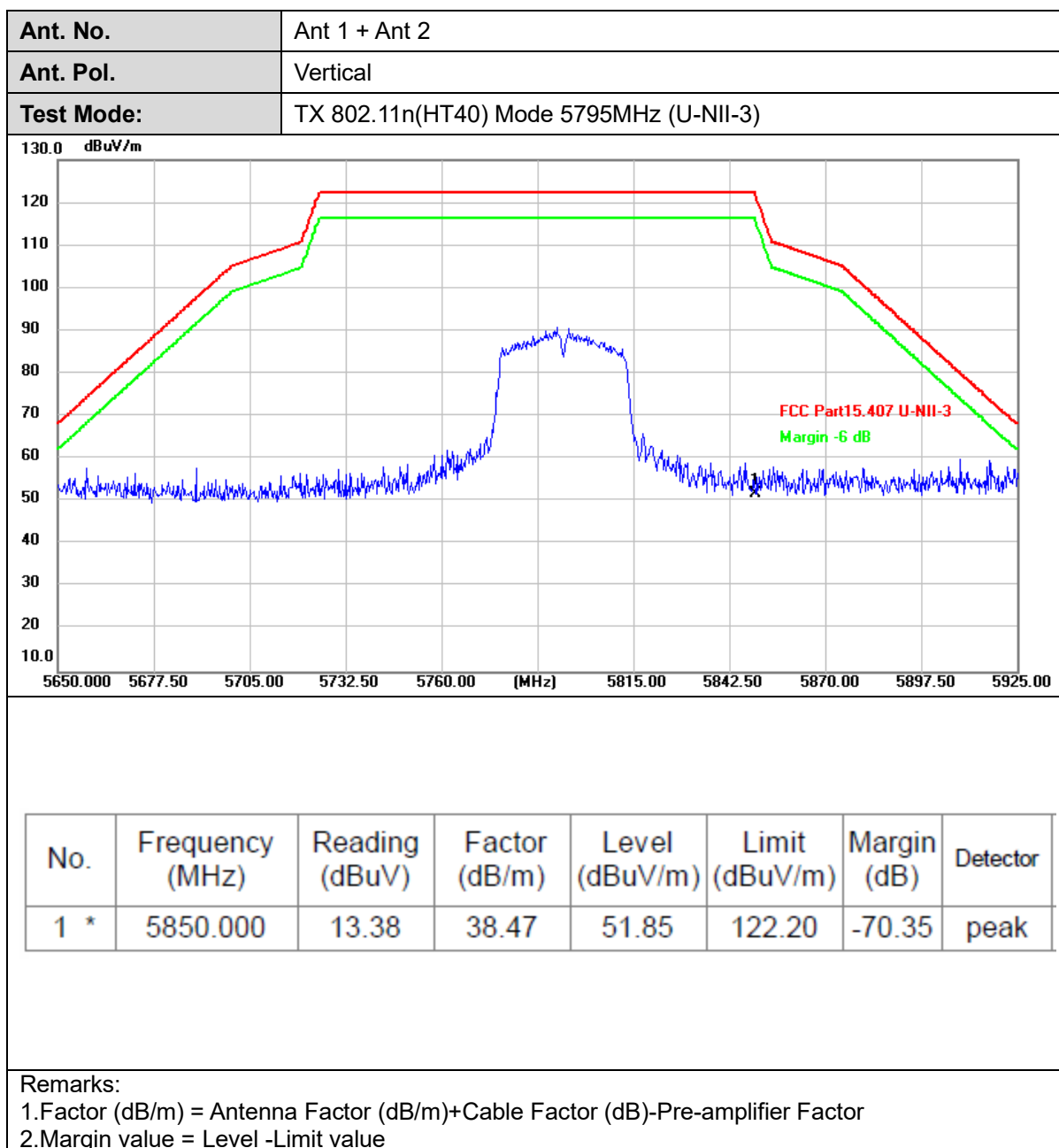


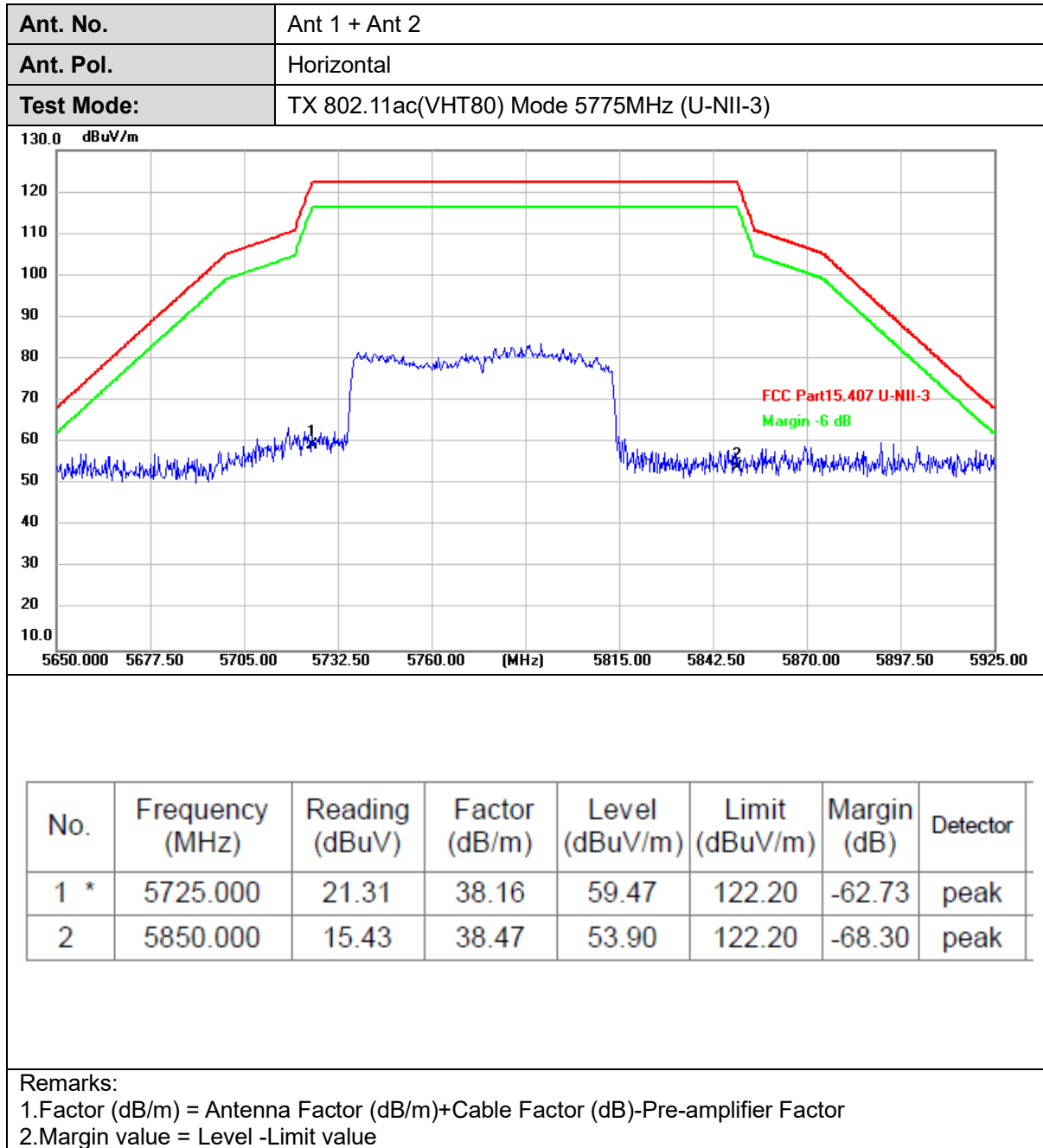


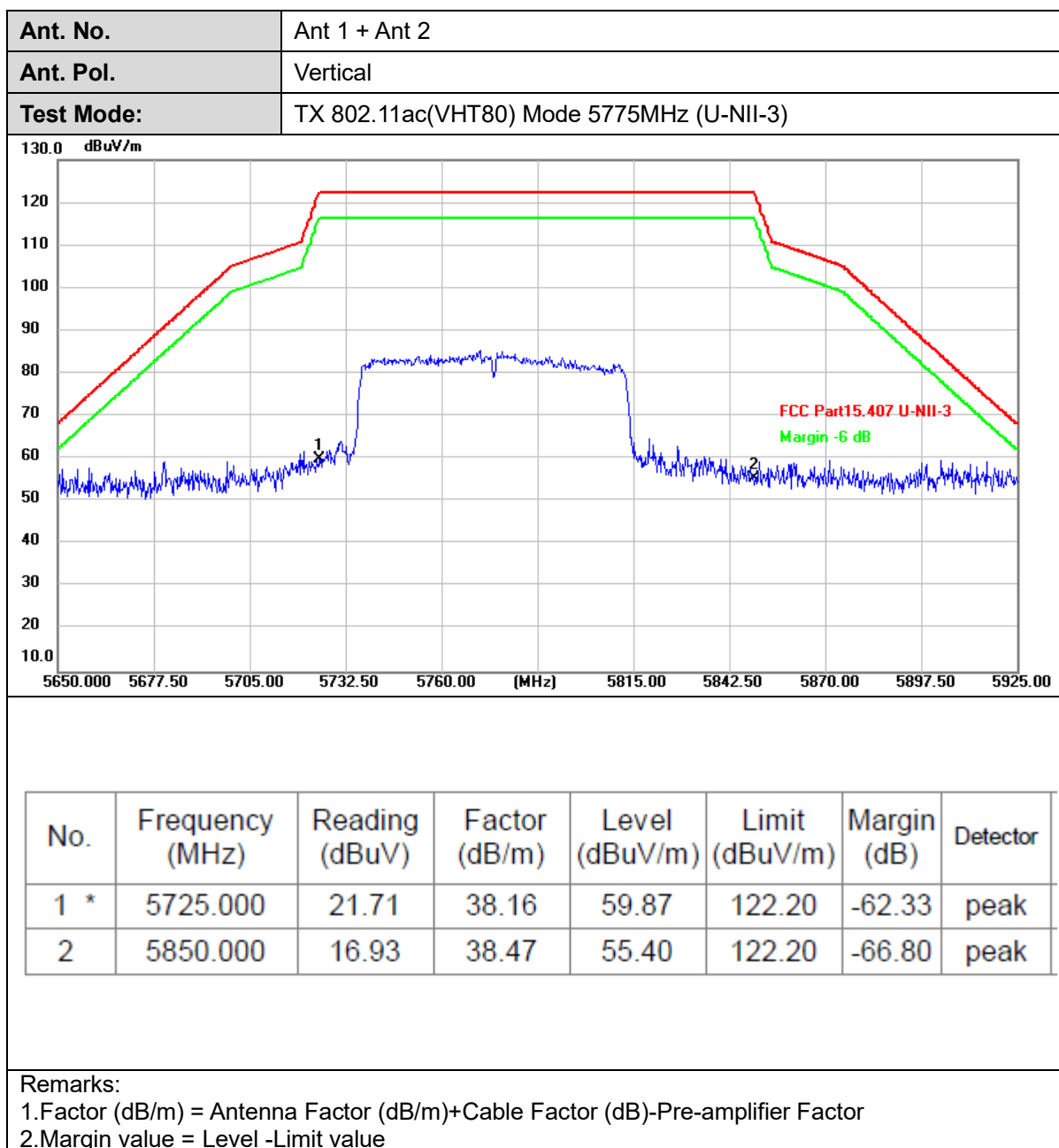


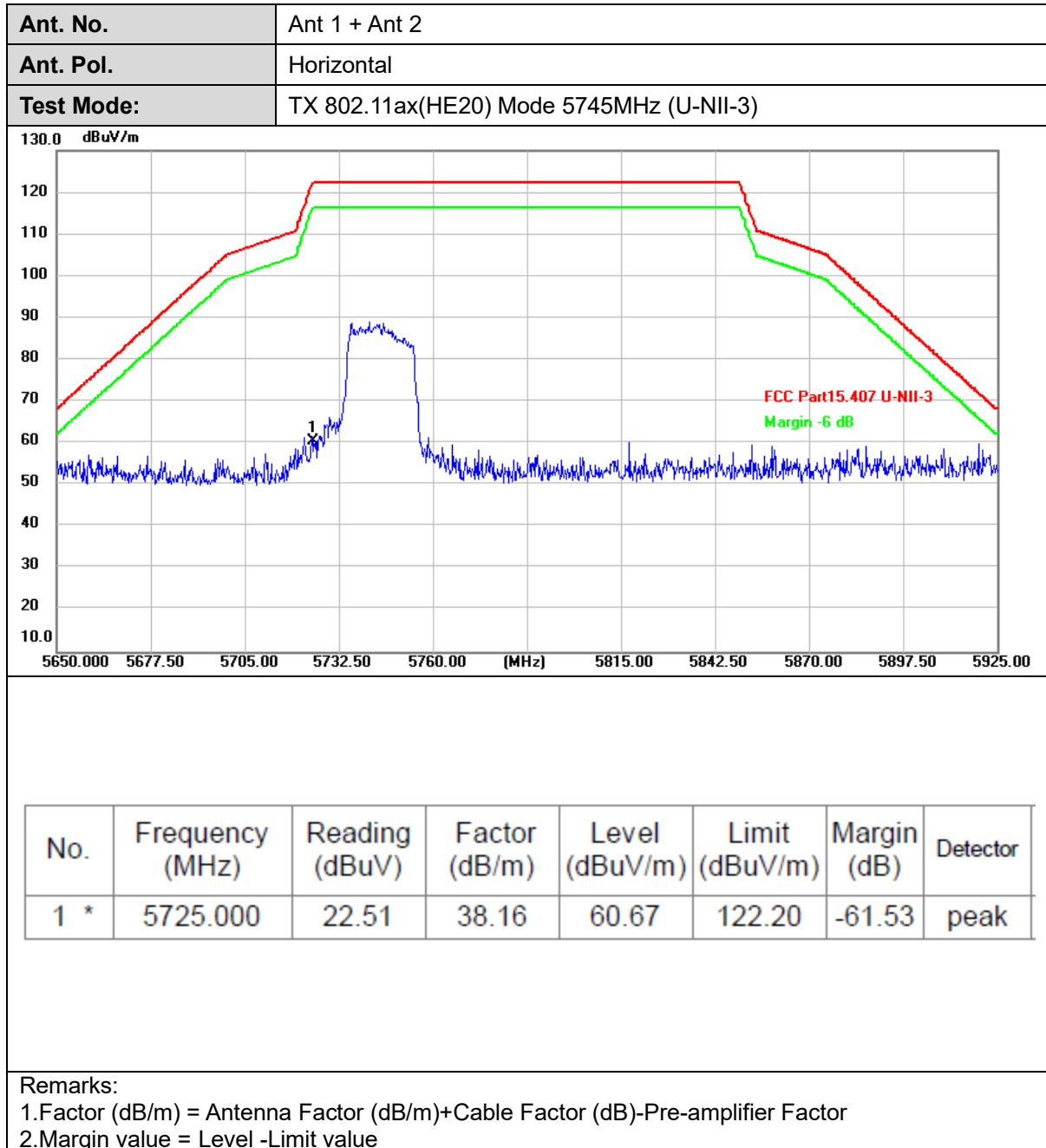


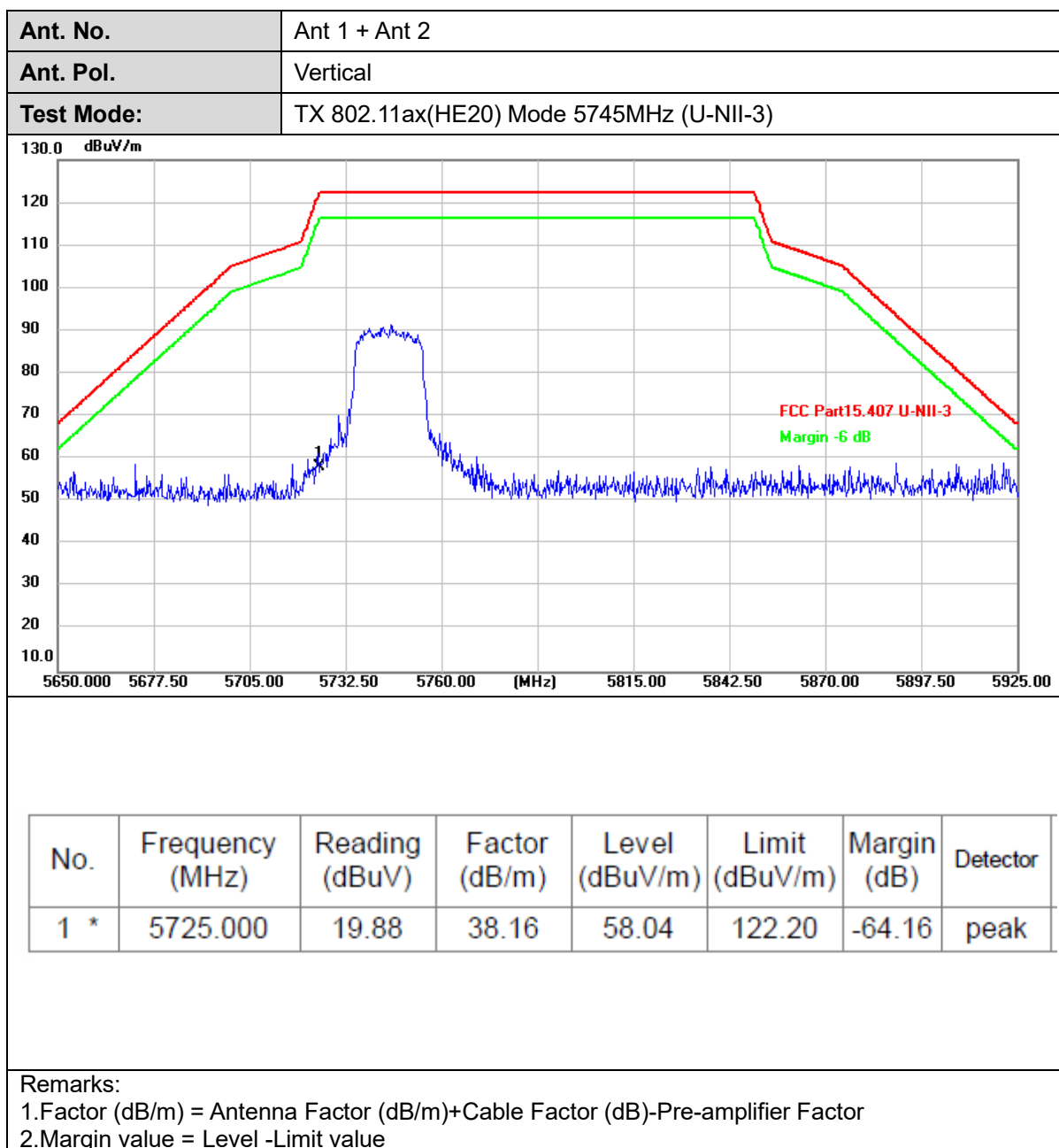


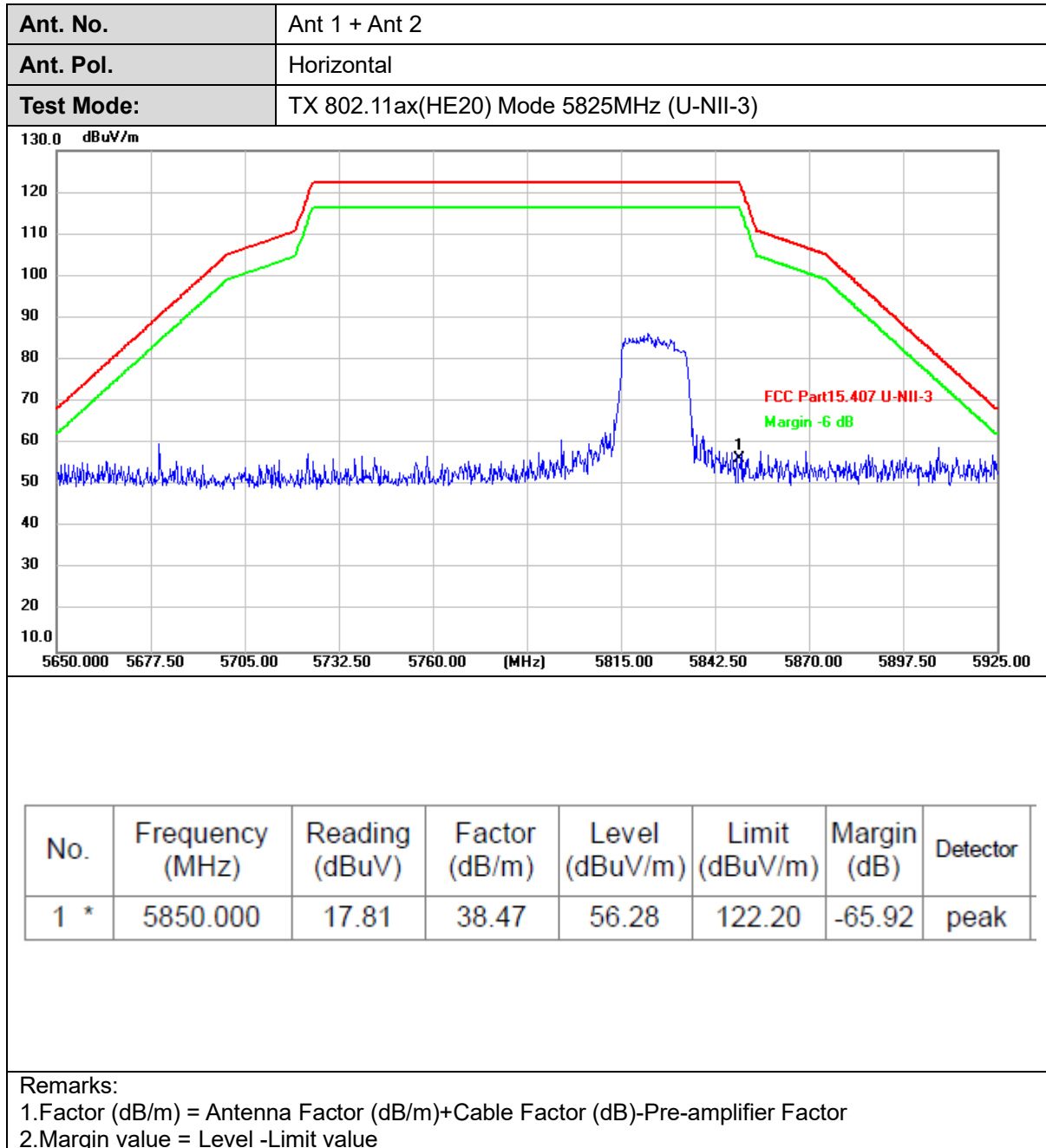


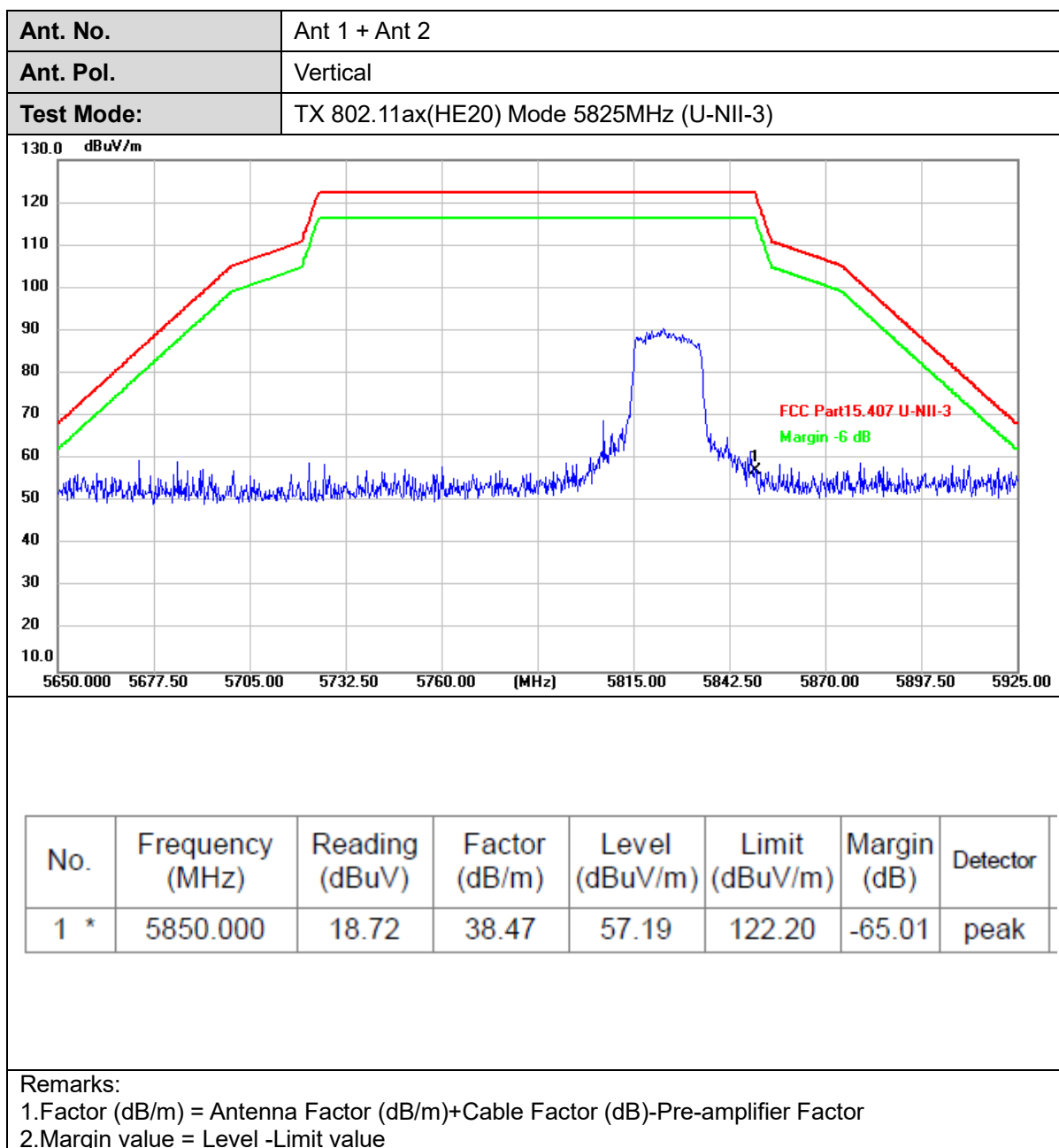


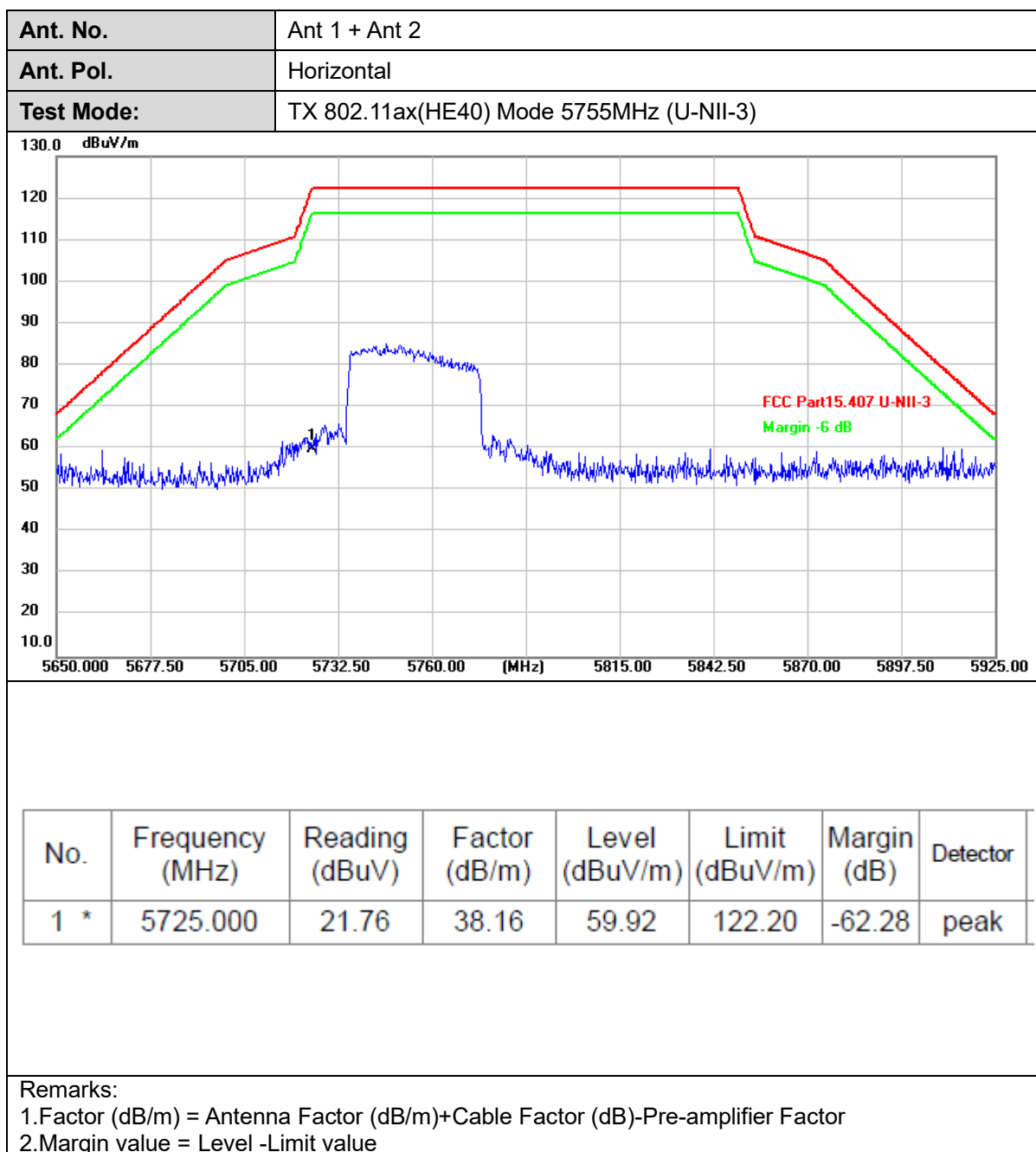


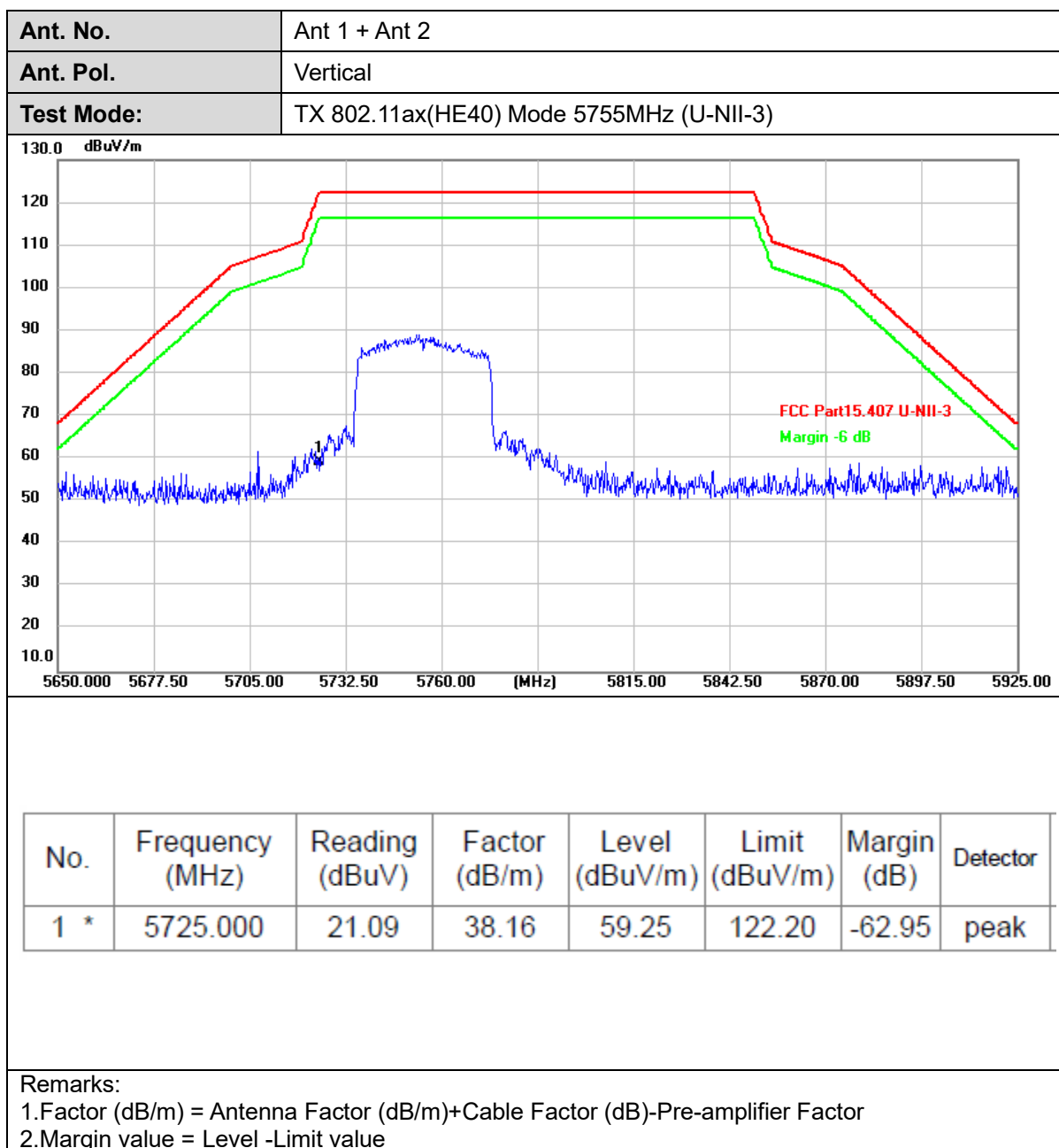


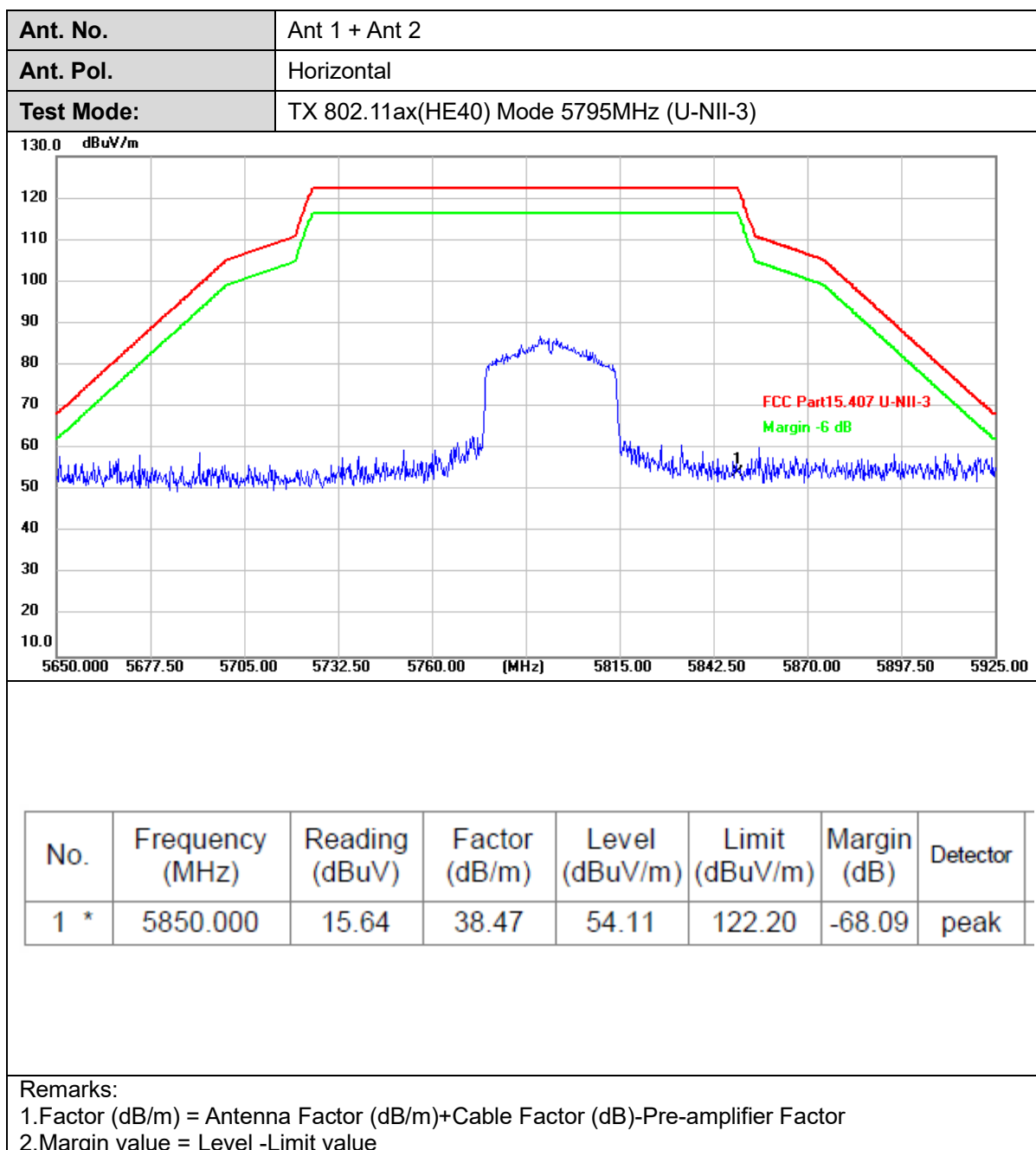


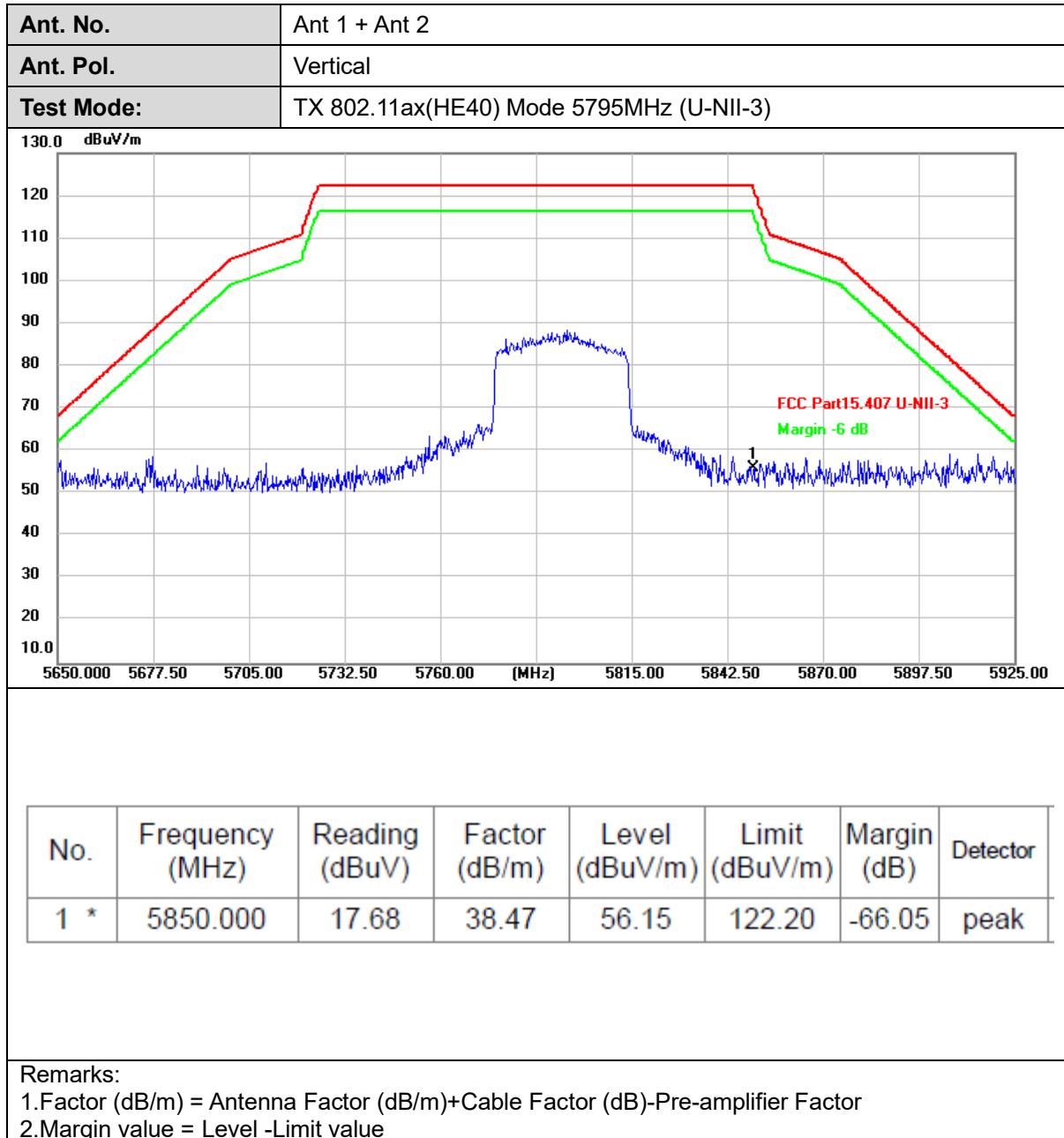


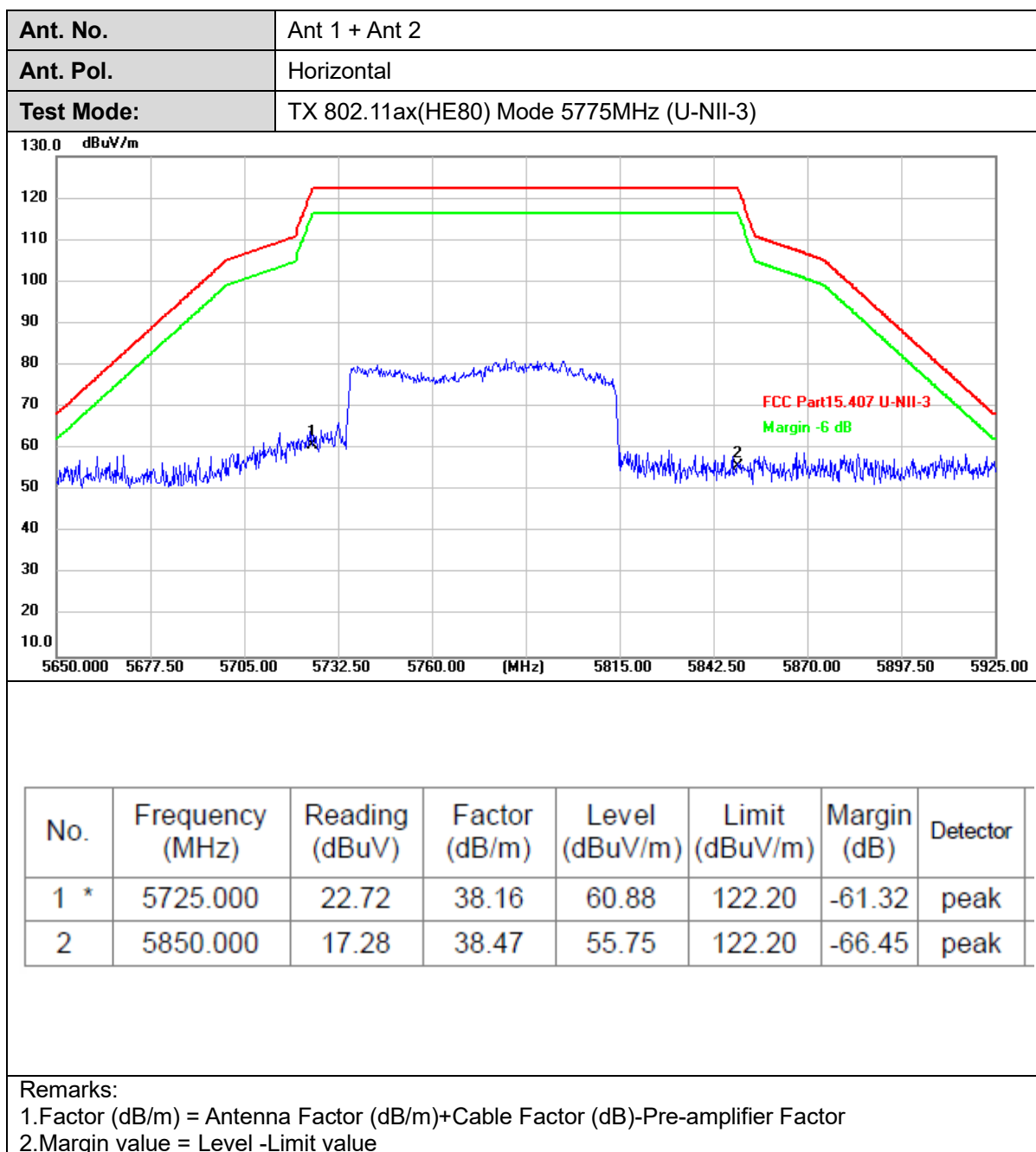


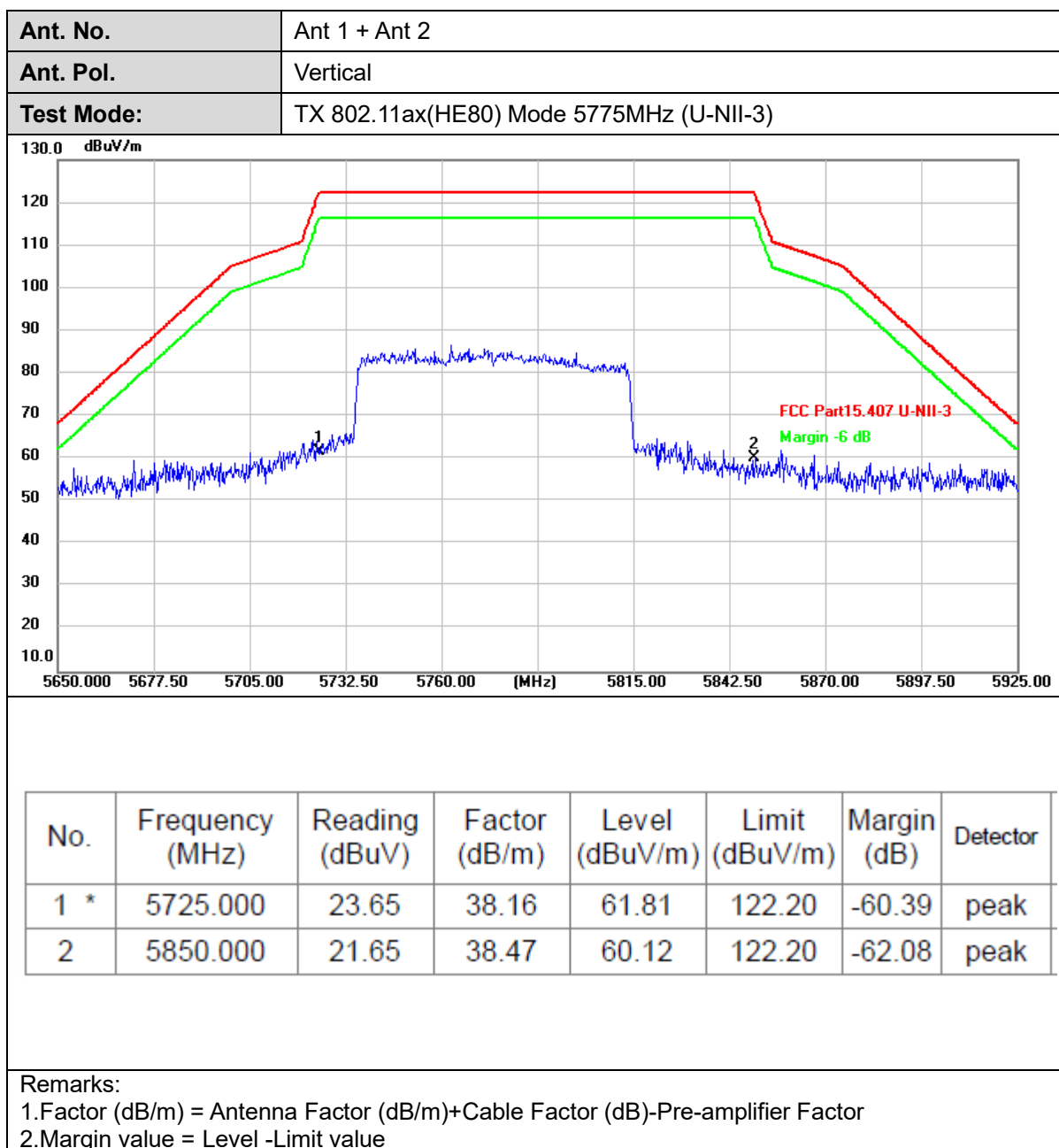














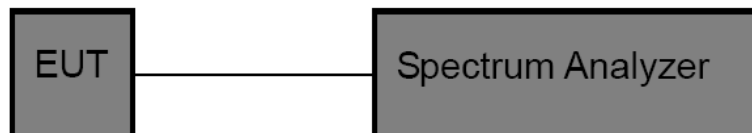
3.4. Bandwidth

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a) & (e)

Test Item	Limit	Frequency Range (MHz)
26dB Bandwidth& 99% Bandwidth	N/A	5150~5250
		5250~5350
		5500~5700
6 dB Bandwidth	≥500 kHz	5725~5850

Test Configuration



Test Procedure

Please refer to KDB789033 D02 for the measurement methods.

The setting of the spectrum analyzer as below:

26dB Bandwidth Test	
Spectrum Parameters	Setting
Attenuation	Auto
Span	>26 dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	>RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto



6dB Bandwidth Test	
Spectrum Parameters	Setting
Attenuation	Auto
Span	>6 dB Bandwidth
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto
99% Occupied Bandwidth Test	
Spectrum Parameters	Setting
Attenuation	Auto
RBW	1% to 5% of the OBW
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold

NOTE: The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.

Test Mode

Please refer to the clause 2.4.

**Test Result****26dB Bandwidth & 99% Bandwidth**

TestMode	Antenna	Freq(MHz)	26db EBW [MHz]	OCB [MHz]
11A	Ant1	5180	25.36	17.223
	Ant2	5180	27.80	18.262
	Ant1	5200	25.32	17.143
	Ant2	5200	24.28	17.742
	Ant1	5240	20.04	17.063
	Ant2	5240	19.96	16.823
	Ant1	5745	23.44	18.302
	Ant2	5745	22.00	18.022
	Ant1	5785	23.76	17.063
	Ant2	5785	23.76	18.062
	Ant1	5825	23.40	17.742
	Ant2	5825	24.12	18.701
11N20MIMO	Ant1	5180	23.96	18.621
	Ant2	5180	24.76	18.182
	Ant1	5200	25.84	19.141
	Ant2	5200	26.48	18.861
	Ant1	5240	20.40	17.902
	Ant2	5240	20.12	17.902
	Ant1	5745	27.16	19.5
	Ant2	5745	31.80	18.861
	Ant1	5785	27.40	18.262
	Ant2	5785	26.88	18.342
	Ant1	5825	28.20	18.861
	Ant2	5825	27.04	18.262
11N40MIMO	Ant1	5190	40.88	36.124
	Ant2	5190	40.64	36.044
	Ant1	5230	40.80	36.044
	Ant2	5230	41.84	36.044
	Ant1	5755	42.48	35.884
	Ant2	5755	46.24	36.044
	Ant1	5795	41.20	36.204
	Ant2	5795	40.80	36.284
11AC80MIMO	Ant1	5210	106.72	75.604
	Ant2	5210	123.52	75.924

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	Ant1	5775	123.84	76.563
	Ant2	5775	102.72	75.125
11AX20MIMO	Ant1	5180	21.92	19.061
	Ant2	5180	23.12	19.5
	Ant1	5200	21.92	19.381
	Ant2	5200	21.32	19.141
	Ant1	5240	19.96	18.861
	Ant2	5240	20.52	18.821
	Ant1	5745	37.04	19.5
	Ant2	5745	39.00	20.3
	Ant1	5785	36.28	19.58
	Ant2	5785	38.72	19.5
	Ant1	5825	34.52	19.341
	Ant2	5825	37.32	19.7
11AX40MIMO	Ant1	5190	39.68	37.882
	Ant2	5190	39.84	38.042
	Ant1	5230	45.92	37.642
	Ant2	5230	60.08	37.962
	Ant1	5755	56.64	38.122
	Ant2	5755	68.64	38.521
	Ant1	5795	57.52	38.122
	Ant2	5795	67.04	38.521
11AX80MIMO	Ant1	5210	107.20	78.002
	Ant2	5210	137.60	78.322
	Ant1	5775	144.32	77.203
	Ant2	5775	129.28	78.162

**6dB Bandwidth**

TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.36	5736.80	5753.16	0.5	PASS
	Ant2	5745	16.28	5736.84	5753.12	0.5	PASS
	Ant1	5785	16.44	5776.72	5793.16	0.5	PASS
	Ant2	5785	16.08	5776.68	5792.76	0.5	PASS
	Ant1	5825	16.48	5816.72	5833.20	0.5	PASS
	Ant2	5825	16.44	5816.80	5833.24	0.5	PASS
11N20MIMO	Ant1	5745	17.72	5736.12	5753.84	0.5	PASS
	Ant2	5745	17.60	5736.16	5753.76	0.5	PASS
	Ant1	5785	17.68	5776.16	5793.84	0.5	PASS
	Ant2	5785	16.96	5776.16	5793.12	0.5	PASS
	Ant1	5825	17.60	5816.16	5833.76	0.5	PASS
	Ant2	5825	17.60	5816.20	5833.80	0.5	PASS
11N40MIMO	Ant1	5755	35.04	5736.84	5771.88	0.5	PASS
	Ant2	5755	35.44	5737.08	5772.52	0.5	PASS
	Ant1	5795	35.76	5777.08	5812.84	0.5	PASS
	Ant2	5795	33.84	5776.76	5810.60	0.5	PASS
11AC80MIMO	Ant1	5775	76.00	5736.76	5812.76	0.5	PASS
	Ant2	5775	71.36	5741.24	5812.60	0.5	PASS
11AX20MIMO	Ant1	5745	19.04	5735.44	5754.48	0.5	PASS
	Ant2	5745	19.08	5735.44	5754.52	0.5	PASS
	Ant1	5785	18.76	5775.72	5794.48	0.5	PASS
	Ant2	5785	18.84	5775.44	5794.28	0.5	PASS
	Ant1	5825	19.08	5815.44	5834.52	0.5	PASS
	Ant2	5825	18.92	5815.56	5834.48	0.5	PASS
11AX40MIMO	Ant1	5755	32.56	5738.68	5771.24	0.5	PASS
	Ant2	5755	35.44	5737.08	5772.52	0.5	PASS
	Ant1	5795	37.60	5776.20	5813.80	0.5	PASS
	Ant2	5795	36.56	5775.96	5812.52	0.5	PASS
11AX80MIMO	Ant1	5775	76.64	5736.92	5813.56	0.5	PASS
	Ant2	5775	71.36	5740.92	5812.28	0.5	PASS

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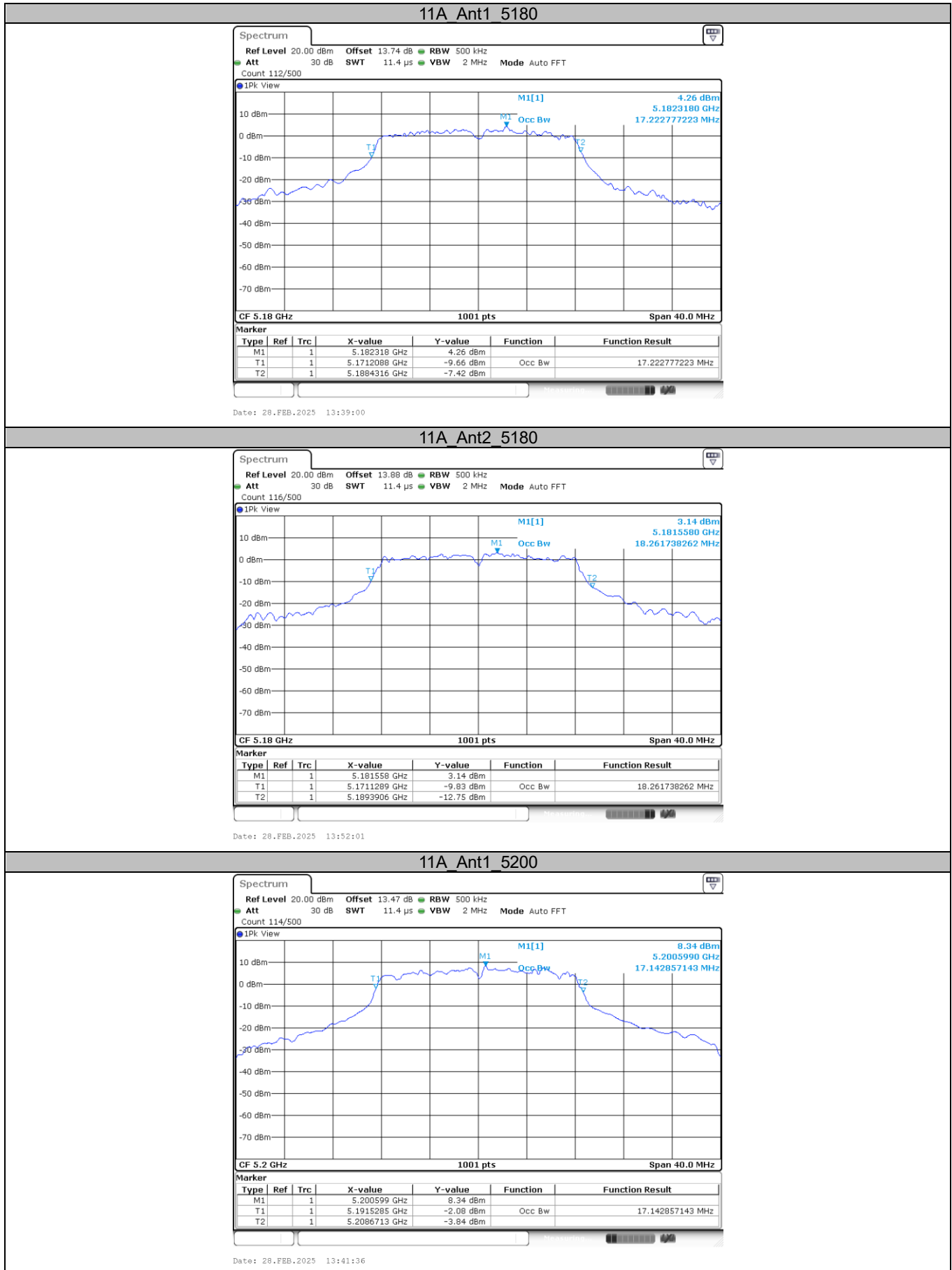
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99% Bandwidth:



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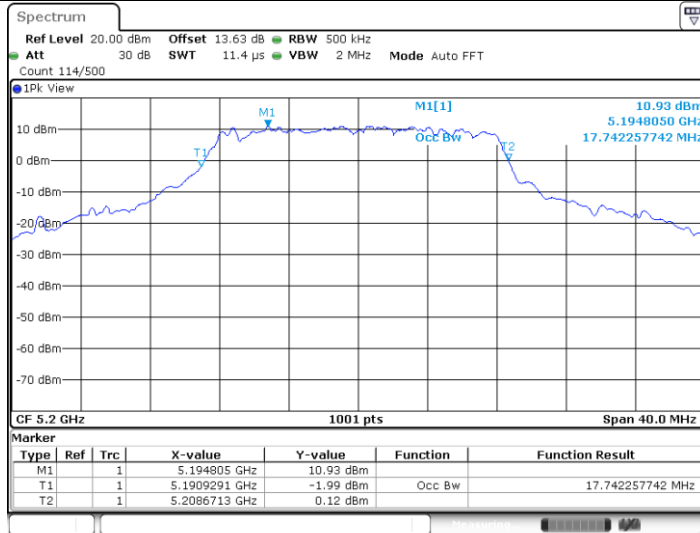
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Society : yz.cncaq.com

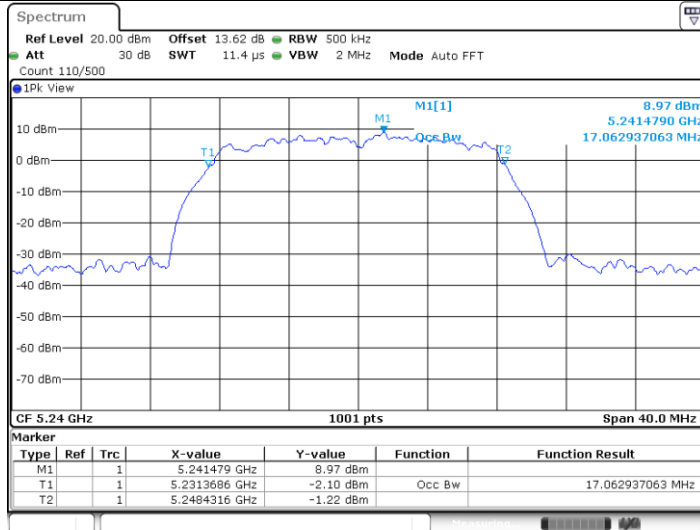


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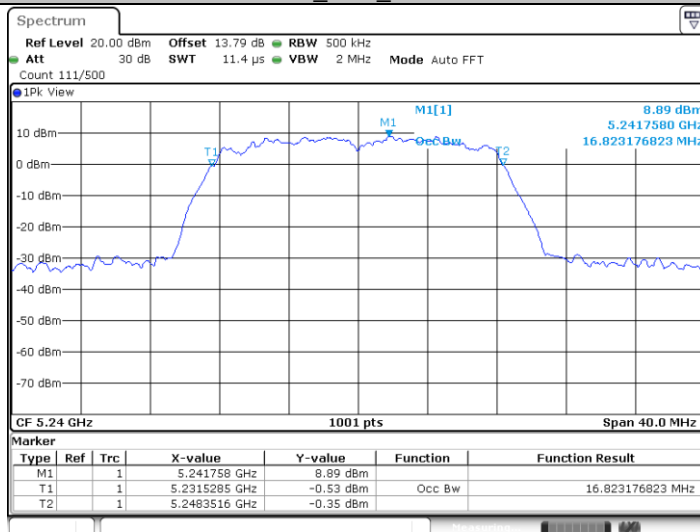
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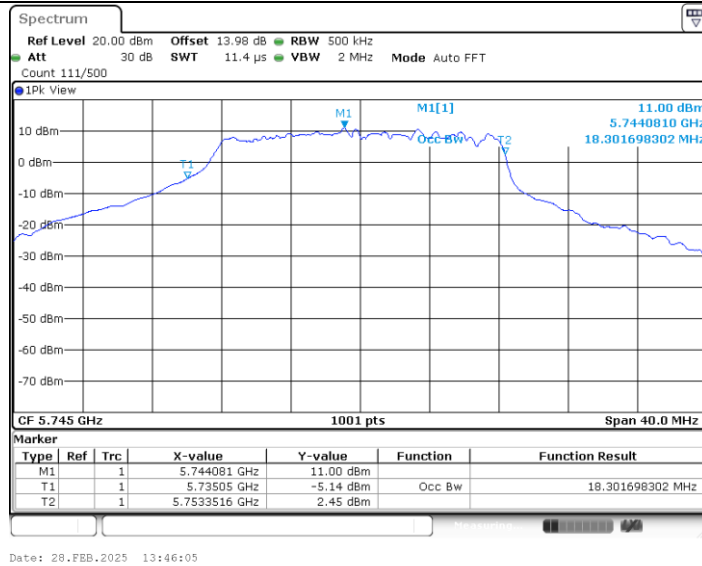
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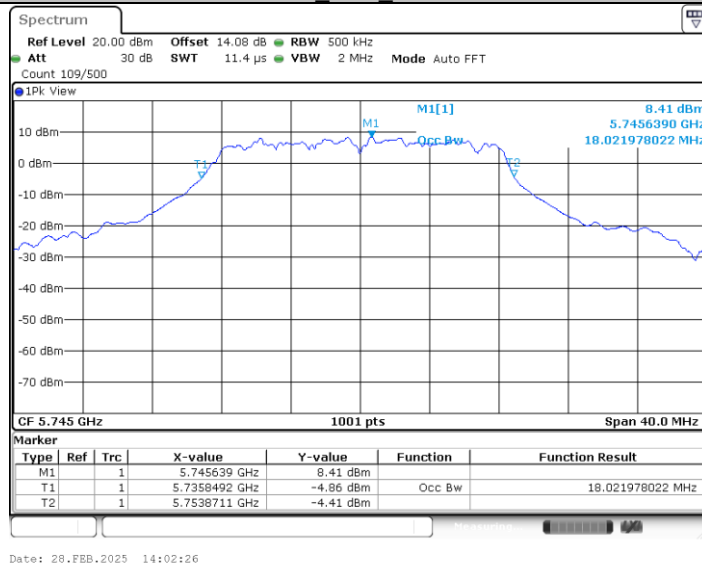


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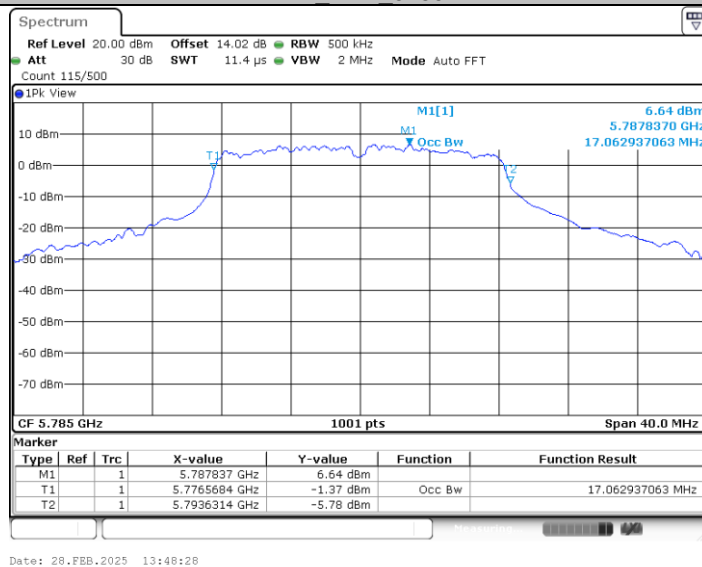
11A_Ant1_5745



11A Ant2 5745



11A Ant1 5785



11A Ant2 5785

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