



CTC Laboratories, Inc.

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TEST REPORT

Report No. : **CTC20231800E03-R1**

FCC ID : **2AGKB-KM2PLUS-D**

Applicant : **Videostrong Technology Co.,Ltd**

Address : 604, Lushi industrial Building, 28 District, Bao'an District, Shenzhen, China

Manufacturer : Videostrong Technology Co.,Ltd

Address : 604, Lushi industrial Building, 28 District, Bao'an District, Shenzhen, China

Product Name : **Set Top Box**

Trade Mark : MECOOL

Model/Type reference : KM2 PLUS D

Listed Model(s) : KM2 PLUS DELUXE, Lumia, HP4423, HP4422, HP4426, HP44J, Ooredoo tv, Leap-S4

Standard : **FCC CFR Title 47 Part 15 Subpart C Section 15.247**

Date of receipt of test sample : Oct. 24, 2023

Date of testing : Oct. 27, 2023 ~ Nov. 15, 2023

Date of issue : Dec. 08, 2023

Result : **PASS**

Compiled by:

(Printed name+signature)

Lucy Lan

Supervised by:

(Printed name+signature)

Eric Zhang

Approved by:

(Printed name+signature)

Totti Zhao

Testing Laboratory Name : **CTC Laboratories, Inc.**

Address : 2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Longhua District, Shenzhen, Guangdong, China

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

[FCC Rules Part 15.247](#): Operation within the bands 902–928MHz, 2400–2483.5MHz, and 5725–5850MHz.

[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	CTC20231800E03	Nov. 30, 2023	Original
02	CTC20231800E03-R1	Dec. 08, 2023	On the basis of the original report CTC20231800E03, Update Factory. The report CTC20231800E03 is invalid.

1.3. Test Description

FCC Part 15 Subpart C (15.247)			
Test Item	Standard Section	Result	Test Engineer
Antenna Requirement	15.203	Pass	Curry
Conducted Emission	15.207	Pass	Curry
Conducted Band Edge and Spurious Emissions	15.247(d)	Pass	Curry
Radiated Band Edge and Spurious Emissions	15.205&15.209&15.247(d)	Pass	Curry
6dB Bandwidth	15.247(a)(2)	Pass	Curry
Conducted Max Output Power	15.247(b)(3)	Pass	Curry
Power Spectral Density	15.247(e)	Pass	Curry
Transmitter Radiated Spurious	15.209&15.247(d)	Pass	Curry

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.



1.4. Test Facility

Address of the report laboratory

CTC Laboratories, Inc.

Add: 2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, 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
DTS Bandwidth	$\pm 0.0196\%$	(1)
Maximum Conducted Output Power	± 0.686 dB	(1)
Maximum Power Spectral Density Level	± 0.743 dB	(1)
Band-edge Compliance	± 1.328 dB	(1)
Unwanted Emissions In Non-restricted Freq Bands	9kHz-1GHz: ± 0.746 dB 1GHz-26GHz: ± 1.328 dB	(1)
Conducted Emissions 9kHz~30MHz	± 3.08 dB	(1)
Radiated Emissions 30~1000MHz	± 4.51 dB	(1)
Radiated Emissions 1~18GHz	± 5.84 dB	(1)
Radiated Emissions 18~40GHz	± 6.12 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

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15 °C to 35 °C
Relative Humidity:	20 % to 75 %
Air Pressure:	101 kPa



2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Videostrong Technology Co.,Ltd
Address:	604, Lushi industrial Building, 28 District, Bao'an District,Shenzhen, China
Manufacturer:	Videostrong Technology Co.,Ltd
Address:	604, Lushi industrial Building, 28 District, Bao'an District,Shenzhen, China
Factory:	SHENZHEN JINGYANG BOCHUANG DIGITAL TECHNOLOGY CO., LTD.
Address:	ROOM 101102, BUILDING H, LICHENG SCIENCE AND TECHNOLOGY INDUSTRIAL PARK, XINHE AVENUE, GONGHE COMMUNITY, SHAJING STREET, BAOAN DISTRICT, SHENZHEN

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For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : <http://yz.cnca.cn>



2.2. General Description of EUT

Product Name:	Set Top Box
Trade Mark:	MECOOL
Model/Type reference:	KM2 PLUS D
Listed Model(s):	KM2 PLUS DELUXE, Lumia, HP4423, HP4422, HP4426, HP44J, Ooredoo tv, Leap-S4
Model Difference:	All these models are identical in the same PCB, layout and electrical circuit, Different is model number.
Power supply:	DC12V 1A from AC/DC Adapter
Adapter Model:	AT-506A-120100JC Input: 100-240V~ 50/60Hz 0.4A Output: 12Vdc/1A 12W
Hardware Version:	/
Software Version:	/
2.4G Wi-Fi	
Modulation:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/ n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Operation Frequency:	802.11b/ g/ n(HT20)/ ax(HE20): 2412MHz~2462MHz 802.11n(HT40)/ ax(HE40): 2422MHz~2452MHz
Channel Number:	802.11b/ g/ n(HT20)/ ax(HE20): 11 channels 802.11n(HT40)/ ax(HE40): 7 channels
Channel Separation:	5MHz
Antenna Type:	FPC Antenna
Antenna Gain:	2.3dBi



2.3. Accessory Equipment Information

Equipment Information			
Name	Model	S/N	Manufacturer
Notebook	ThinkBook 14G3 ACL	MP246QDR	Lenovo
Displayer	EW3270-T	EW3270U	BenQ
Cable Information			
Name	Shielded Type	Ferrite Core	Length
LAN Cable	Without	Without	1.5M
HDMI Cable	Without	Without	1.5M
Test Software Information			
Name	Versions	/	/
SecureCRT	/	/	/



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 and receiving mode for testing.

Operation Frequency List:

Channel	Frequency (MHz)
01	2412
02	2417
03	2422
04	2427
05	2432
06	2437
07	2442
08	2447
09	2452
10	2457
11	2462

Note: CH 01~CH 11 for 802.11b/g/n(HT20)/ax(HE20), CH 03~CH 09 for 802.11n(HT40)/ax(HE40).

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 the worst case mode.

Test Mode	Data Rate (worst mode)
802.11b	1Mbps
802.11g	6Mbps
802.11n(HT20)/ (HT40)	HT-MCS8
802.11ax(HE20)/ (HE40)	HE-MCS0

Test Mode:

For RF test items:
The engineering test program was provided and enabled to make EUT continuous transmit.
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.



RU Configuration:

Operating Mode	Resource Unit	26 Tone (2M)
802.11ax(HE20)	Specific Resource Unit	0
		⋮
		4
		⋮
		8
	Resource Unit	52 Tone (4M)
	Specific Resource Unit	37
		38
		39
		40
	Resource Unit	106 Tone (8M)
	Specific Resource Unit	53
		54
	Resource Unit	242 Tone (20M)
	Specific Resource Unit	61
Operating Mode	Resource Unit	26 Tone (2M)
802.11ax(HE40)	Specific Resource Unit	0
		⋮
		8
		⋮
		17
	Resource Unit	52 Tone (4M)
	Specific Resource Unit	37
		38
		39
		40
		41
		42
		43
		44
	Resource Unit	106 Tone (8M)
	Specific Resource Unit	53
		54
		55
		56
	Resource Unit	242 Tone (20M)
	Specific Resource Unit	61
		62
	Resource Unit	484 Tone (40M)
	Specific Resource Unit	65



2.5. Measurement Instruments List

RF Test System					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	MXA Signal Analyzer	Keysight	N9020A	MY52091402	Aug. 22, 2024
2	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 24, 2024
3	USB Wideband Power Sensor	Keysight	U2021XA	MY55130004	Mar. 14, 2024
4	USB Wideband Power Sensor	Keysight	U2021XA	MY55130006	Mar. 14, 2024
5	Test Software	WCS	WCS-WCN	2023.08.04	/

Radiated Emission (3m chamber 3)					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9163	01026	Dec. 18, 2024
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Dec. 01, 2024
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 16, 2023
4	Broadband Amplifier	SCHWARZBECK	BBV9743B	259	Dec. 16, 2023
5	Mirowave Broadband Amplifier	SCHWARZBECK	BBV9718C	111	Dec. 16, 2023
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. 16, 2023
2	LISN	R&S	ENV216	101113	Dec. 16, 2023
3	EMI Test Receiver	R&S	ESCS30	100353	Dec. 16, 2023
4	ISN CAT6	Schwarzbeck	NTFM 8158	CAT6-8158-0046	Dec. 16, 2023
5	ISN CAT5	Schwarzbeck	NTFM 8158	CAT5-8158-0046	Dec. 16, 2023
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

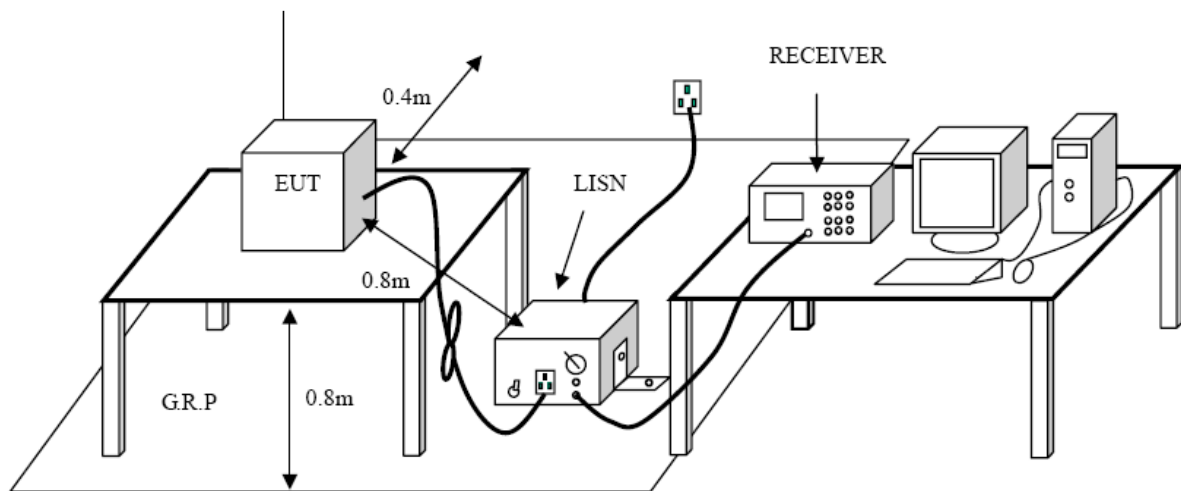
Limit

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

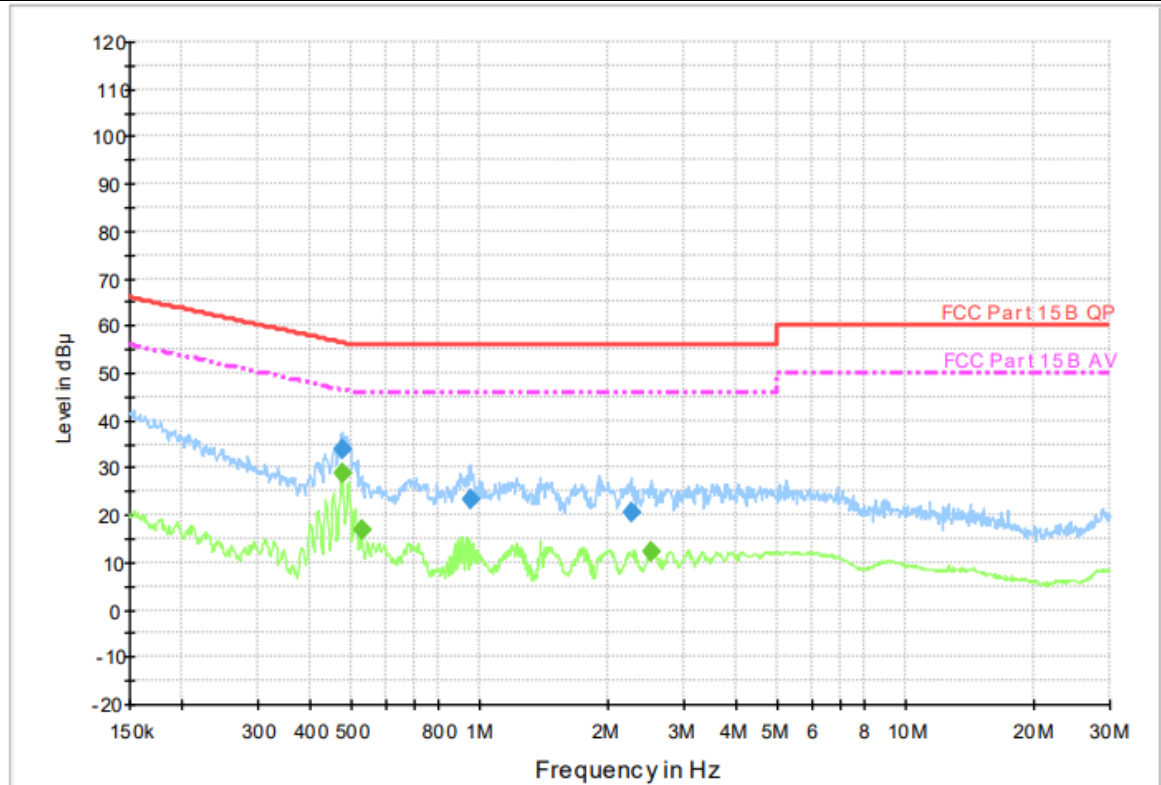
1. The EUT was setup according to ANSI C63.10:2013 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from 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
0.471700	34.0	1000.00	9.000	On	L1	9.5	22.5	56.5	
0.944790	23.2	1000.00	9.000	On	L1	9.5	32.8	56.0	
2.255710	20.7	1000.00	9.000	On	L1	9.5	35.3	56.0	

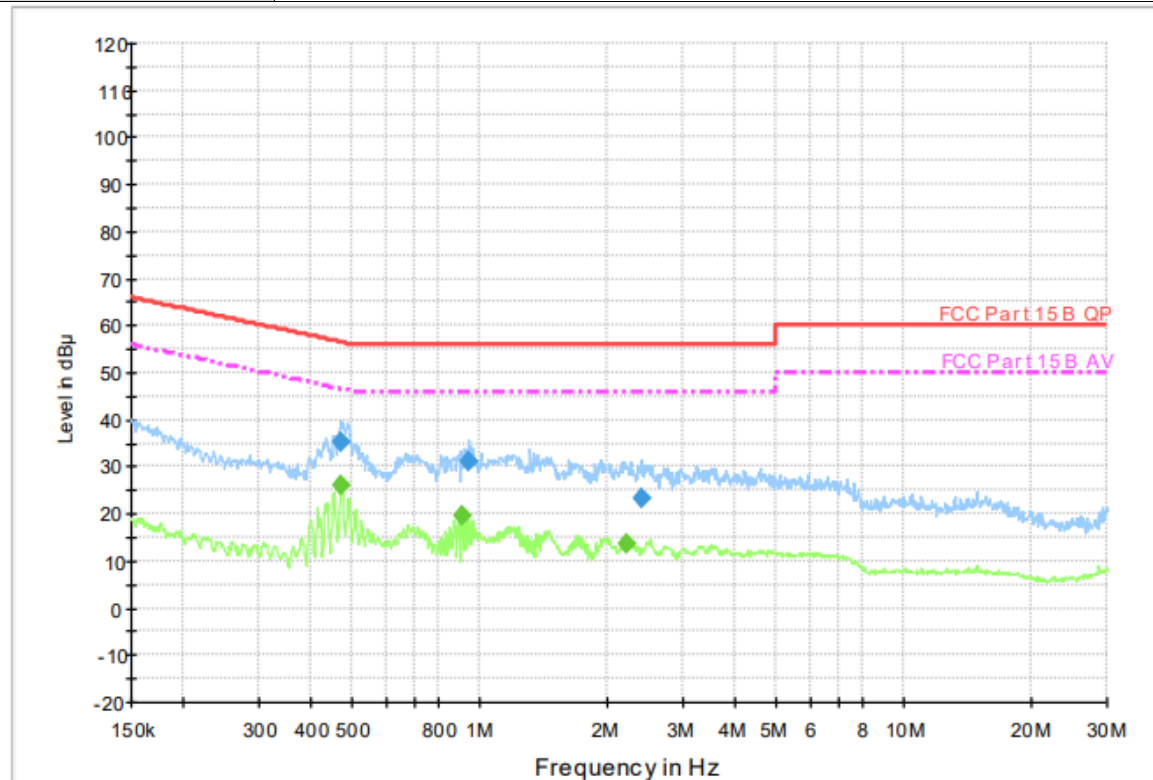
Final Measurement Detector 2

Frequency (MHz)	Average (dBμ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.471700	28.7	1000.00	9.000	On	L1	9.5	17.8	46.5	
0.525380	16.6	1000.00	9.000	On	L1	9.5	29.4	46.0	
2.522470	12.4	1000.00	9.000	On	L1	9.5	33.6	46.0	

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
0.466090	35.3	1000.00	9.000	On	N	9.4	21.3	56.6	
0.937270	31.0	1000.00	9.000	On	N	9.4	25.0	56.0	
2.394900	23.4	1000.00	9.000	On	N	9.4	32.6	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
0.469820	25.9	1000.00	9.000	On	N	9.4	20.6	46.5	
0.900590	19.8	1000.00	9.000	On	N	9.4	26.2	46.0	
2.219970	13.5	1000.00	9.000	On	N	9.4	32.5	46.0	

Emission Level = Read Level + Correct Factor

3.2. Radiated Emission

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.209

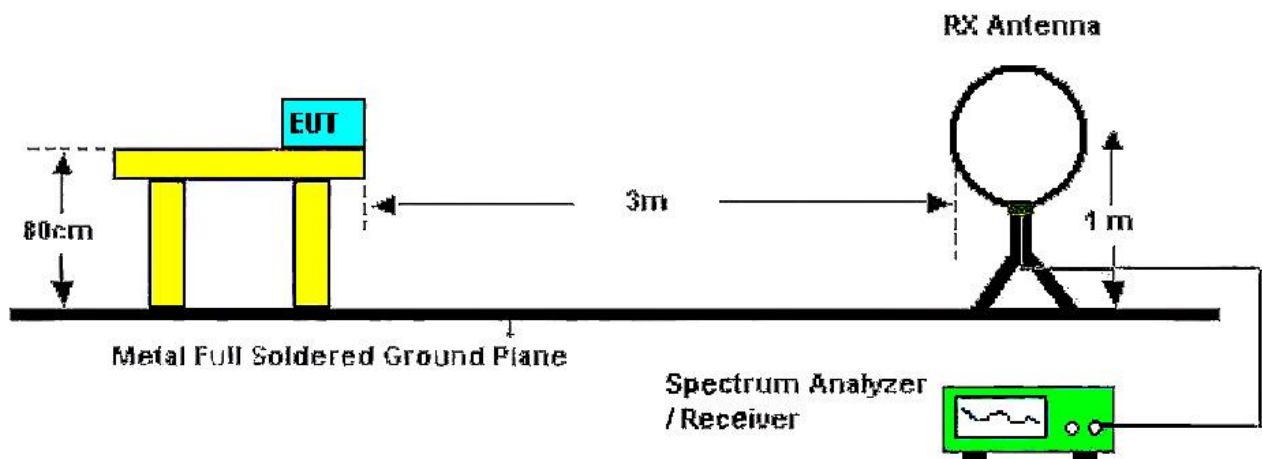
Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F (kHz)	300
0.490~1.705	24000/F (kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

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

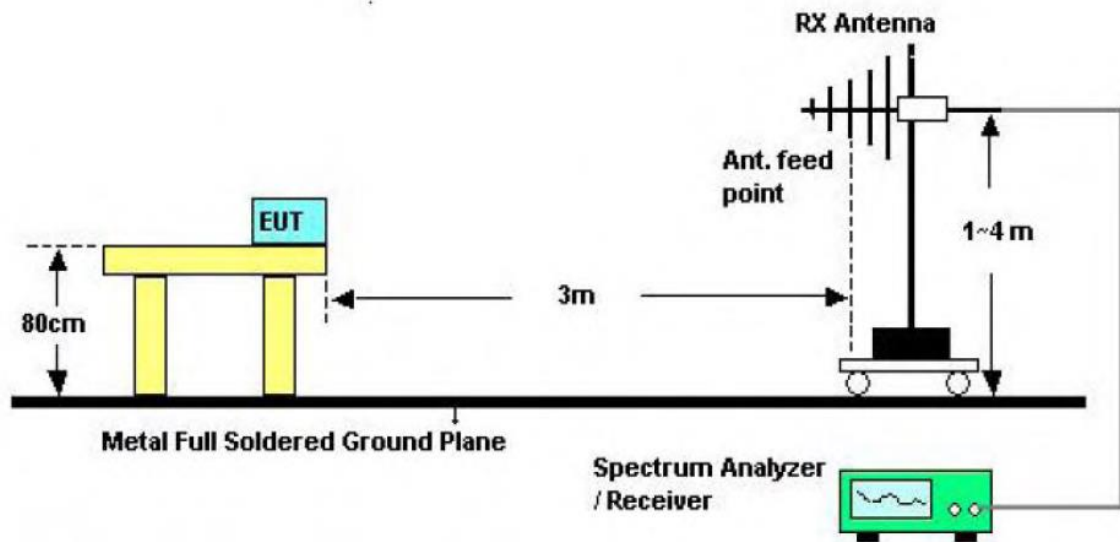
Note:

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

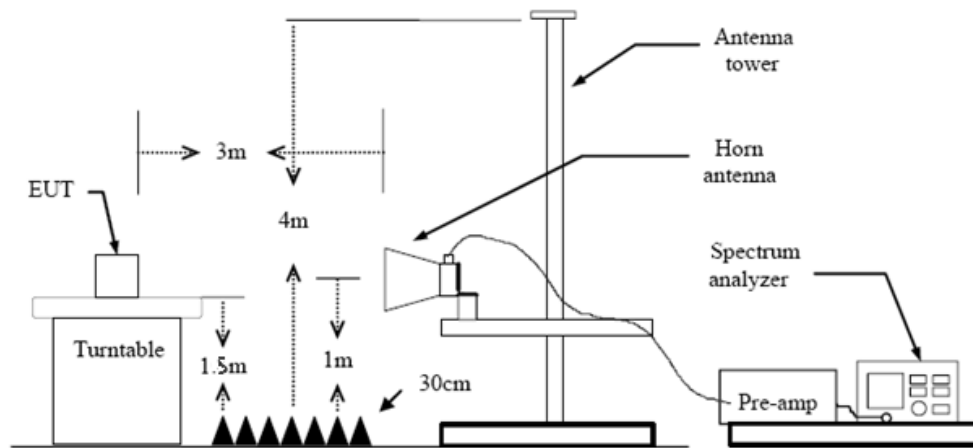
Test Configuration



Below 30MHz Test Setup



30-1000MHz Test Setup



Above 1GHz Test Setup

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 hold
- If 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 3.8 Duty Cycle.

Test Mode

Please refer to the clause 2.4.

Test Result

9 kHz~30 MHz

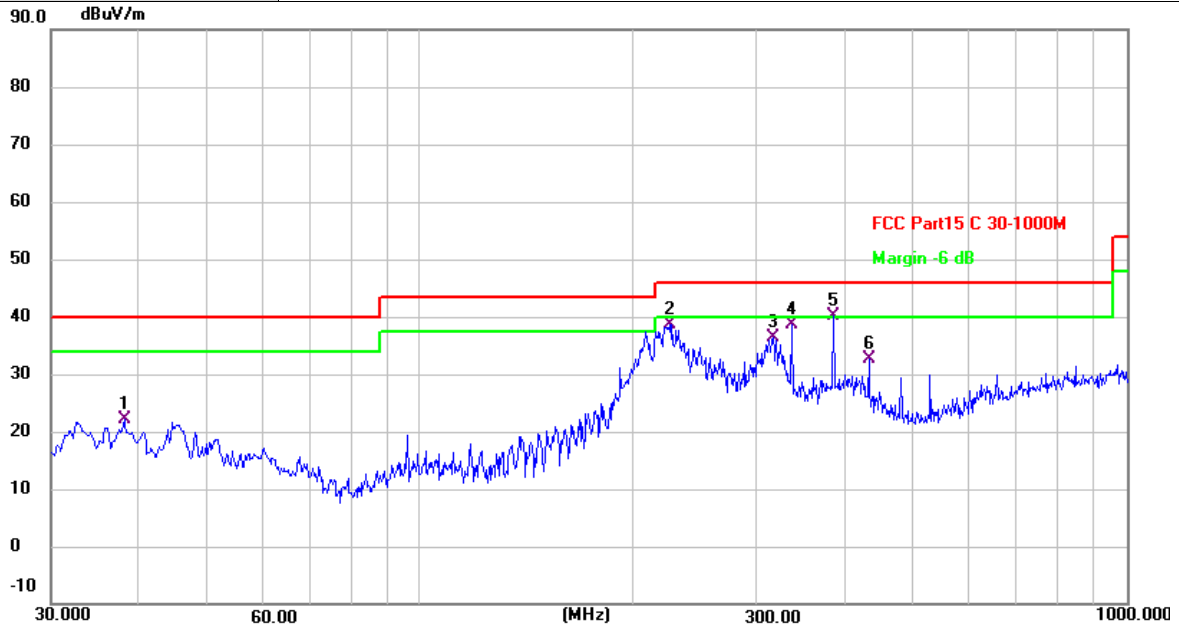
From 9 kHz to 30 MHz: The conclusion is PASS.

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



30MHz-1GHz

Ant. No.	Ant 1
Ant. Pol.	Horizontal
Test Mode:	TX 802.11b Mode 2412MHz
Remark:	Only worse case is reported.



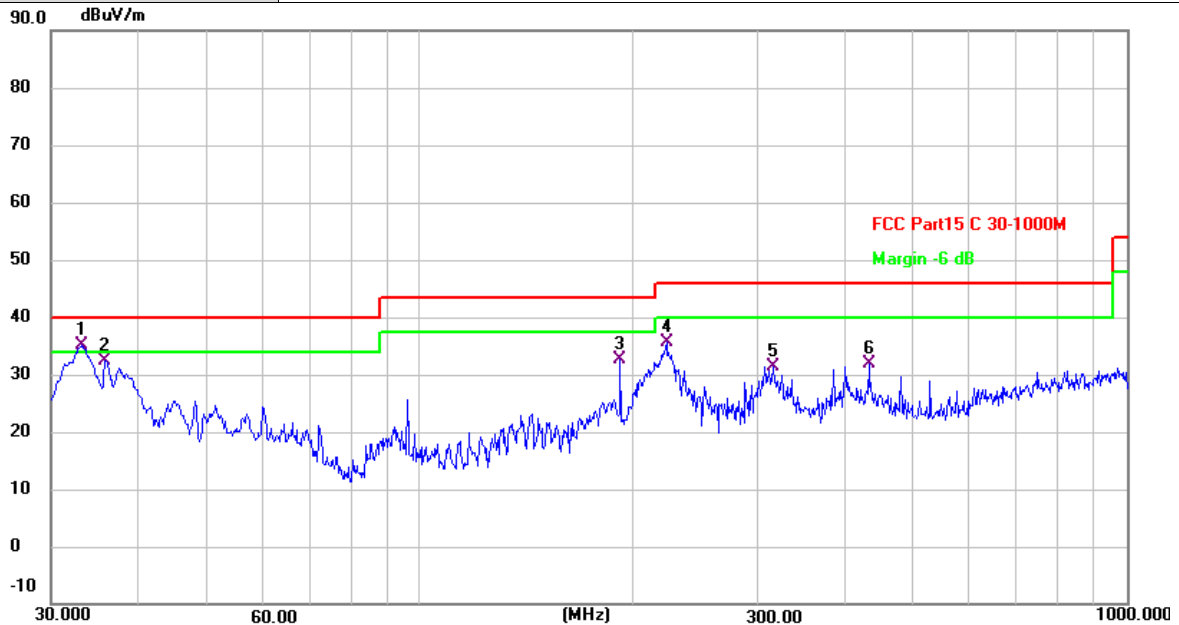
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	38.0833	36.97	-14.90	22.07	40.00	-17.93	QP
2	225.6167	53.91	-15.22	38.69	46.00	-7.31	QP
3	315.5033	49.38	-12.98	36.40	46.00	-9.60	QP
4	335.8733	51.00	-12.31	38.69	46.00	-7.31	QP
5 *	384.0500	51.54	-11.35	40.19	46.00	-5.81	QP
6	431.9033	43.32	-10.60	32.72	46.00	-13.28	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 802.11b Mode 2412MHz
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	33.2333	50.77	-15.67	35.10	40.00	-4.90	QP
2	35.8200	47.97	-15.51	32.46	40.00	-7.54	QP
3	191.9900	49.28	-16.67	32.61	43.50	-10.89	QP
4	223.3533	50.85	-15.29	35.56	46.00	-10.44	QP
5	315.8267	44.47	-12.97	31.50	46.00	-14.50	QP
6	431.9033	42.51	-10.60	31.91	46.00	-14.09	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 802.11b Mode 2412MHz						
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 *	4824.083	32.08	2.11	34.19	54.00	-19.81	AVG
2	4824.124	41.73	2.11	43.84	74.00	-30.16	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 802.11b Mode 2412MHz						
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	4823.971	37.29	2.11	39.40	74.00	-34.60	peak
2 *	4823.971	31.33	2.11	33.44	54.00	-20.56	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 802.11b Mode 2437MHz						
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	4873.655	41.43	2.18	43.61	74.00	-30.39	peak
2 *	4874.105	30.37	2.18	32.55	54.00	-21.45	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 802.11b Mode 2437MHz						
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	4873.971	41.22	2.18	43.40	74.00	-30.60	peak
2 *	4874.042	30.51	2.18	32.69	54.00	-21.31	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 802.11b Mode 2462MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						

Ant. No.	Ant 1						
Ant. Pol.	Vertical						
Test Mode:	TX 802.11b Mode 2462MHz						
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	4923.973	33.13	2.26	35.39	74.00	-38.61	peak
2 *	4923.973	27.47	2.26	29.73	54.00	-24.27	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 802.11g Mode 2412MHz						
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 *	4823.439	24.25	2.11	26.36	54.00	-27.64	AVG
2	4823.917	39.54	2.11	41.65	74.00	-32.35	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. Pol.	Vertical						
Test Mode:	TX 802.11g Mode 2412MHz						
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 *	4824.035	24.65	2.11	26.76	54.00	-27.24	AVG
2	4824.775	38.85	2.11	40.96	74.00	-33.04	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 802.11g Mode 2437MHz						
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	4873.271	38.97	2.18	41.15	74.00	-32.85	peak
2 *	4874.708	24.30	2.18	26.48	54.00	-27.52	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. Pol.	Vertical						
Test Mode:	TX 802.11g Mode 2437MHz						
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	4873.331	39.60	2.18	41.78	74.00	-32.22	peak
2 *	4874.527	23.96	2.18	26.14	54.00	-27.86	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 802.11g Mode 2462MHz						
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	4923.586	39.23	2.26	41.49	74.00	-32.51	peak
2 *	4924.062	29.24	2.26	31.50	54.00	-22.50	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 802.11g Mode 2462MHz						
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 *	4923.684	22.97	2.26	25.23	54.00	-28.77	AVG
2	4923.725	38.52	2.26	40.78	74.00	-33.22	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 2412MHz						
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 *	4823.911	25.37	2.11	27.48	54.00	-26.52	AVG
2	4824.029	39.51	2.11	41.62	74.00	-32.38	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 2412MHz						
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	4823.657	39.27	2.11	41.38	74.00	-32.62	peak
2 *	4824.800	24.23	2.11	26.34	54.00	-27.66	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(HT20) Mode 2437MHz						
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(HT20) Mode 2437MHz						
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 *	4874.410	23.75	2.18	25.93	54.00	-28.07	AVG
2	4874.930	38.89	2.18	41.07	74.00	-32.93	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 2462MHz						
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	4923.136	39.93	2.25	42.18	74.00	-31.82	peak
2 *	4923.541	23.30	2.26	25.56	54.00	-28.44	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 2462MHz						
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 *	4923.035	23.31	2.25	25.56	54.00	-28.44	AVG
2	4924.141	38.87	2.26	41.13	74.00	-32.87	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 2422MHz						
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	4844.444	40.78	2.13	42.91	74.00	-31.09	peak
2 *	4844.451	24.95	2.13	27.08	54.00	-26.92	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 2422MHz						
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	4843.300	39.92	2.12	42.04	74.00	-31.96	peak
2 *	4844.577	25.06	2.13	27.19	54.00	-26.81	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 2437MHz						
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	4873.845	38.64	2.18	40.82	74.00	-33.18	peak
2 *	4874.699	24.27	2.18	26.45	54.00	-27.55	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 2437MHz						
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	4873.917	38.13	2.18	40.31	74.00	-33.69	peak
2 *	4873.943	24.28	2.18	26.46	54.00	-27.54	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 2452MHz						
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	4904.432	38.89	2.22	41.11	74.00	-32.89	peak
2 *	4904.609	24.17	2.22	26.39	54.00	-27.61	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 2452MHz						
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	4903.496	38.39	2.22	40.61	74.00	-33.39	peak
2 *	4904.541	24.26	2.22	26.48	54.00	-27.52	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.	Horizontal						
Test Mode:	TX 802.11ax(HE20) Mode 2412MHz 242/61						
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 *	4823.477	24.98	2.11	27.09	54.00	-26.91	AVG
2	4823.763	40.12	2.11	42.23	74.00	-31.77	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 2412MHz 242/61						
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	4824.025	38.99	2.11	41.10	74.00	-32.90	peak
2 *	4824.422	25.80	2.11	27.91	54.00	-26.09	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 2437MHz 242/61						
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	4874.276	39.92	2.18	42.10	74.00	-31.90	peak
2 *	4874.758	24.05	2.18	26.23	54.00	-27.77	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 2437MHz 242/61						
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	4873.641	39.21	2.18	41.39	74.00	-32.61	peak
2 *	4874.311	23.25	2.18	25.43	54.00	-28.57	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 2462MHz 242/61						
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	4923.190	37.98	2.25	40.23	74.00	-33.77	peak
2 *	4923.735	23.17	2.26	25.43	54.00	-28.57	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 2462MHz 242/61						
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 *	4923.077	22.92	2.25	25.17	54.00	-28.83	AVG
2	4923.693	38.99	2.26	41.25	74.00	-32.75	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 2422MHz 484/65						
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 *	4844.097	25.08	2.13	27.21	54.00	-26.79	AVG
2	4844.499	39.43	2.13	41.56	74.00	-32.44	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 2422MHz 484/65						
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	4843.266	38.92	2.12	41.04	74.00	-32.96	peak
2 *	4844.202	25.15	2.13	27.28	54.00	-26.72	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.	Horizontal						
Test Mode:	TX 802.11ax(HE40) Mode 2437MHz 484/65						
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	4873.097	39.63	2.18	41.81	74.00	-32.19	peak
2 *	4874.623	23.83	2.18	26.01	54.00	-27.99	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 2437MHz 484/65						
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 *	4873.505	24.59	2.18	26.77	54.00	-27.23	AVG
2	4874.553	38.57	2.18	40.75	74.00	-33.25	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 2452MHz 484/65						
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	4903.465	39.69	2.22	41.91	74.00	-32.09	peak
2 *	4904.795	23.83	2.22	26.05	54.00	-27.95	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 2452MHz 484/65						
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	4903.486	38.40	2.22	40.62	74.00	-33.38	peak
2 *	4904.101	23.02	2.22	25.24	54.00	-28.76	AVG
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value							

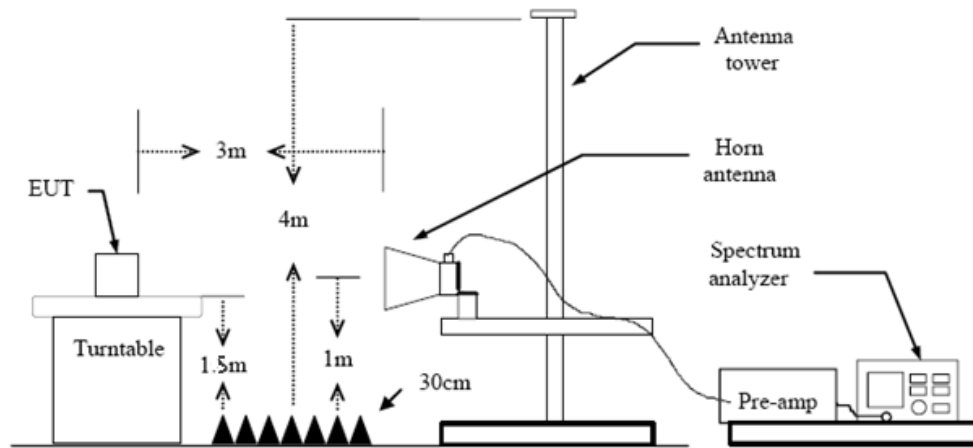
3.3. Band Edge Emissions (Radiated)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d) / RSS-247 5.5

Restricted Frequency Band (MHz)	(dBμV/m) (at 3m)	
	Peak	Average
2310 ~ 2390	74	54
2483.5 ~ 2500	74	54

Test Configuration



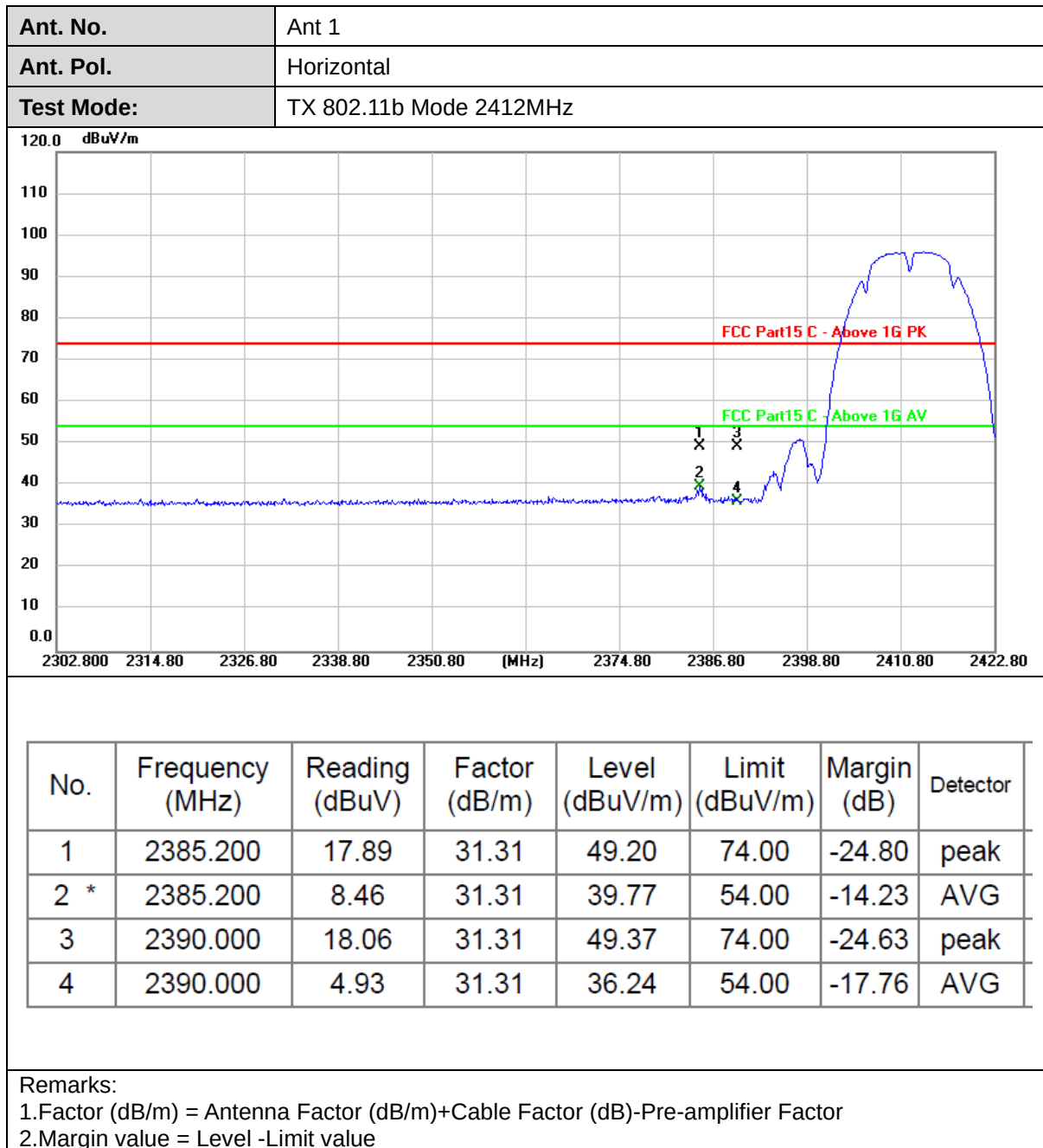
Test Procedure

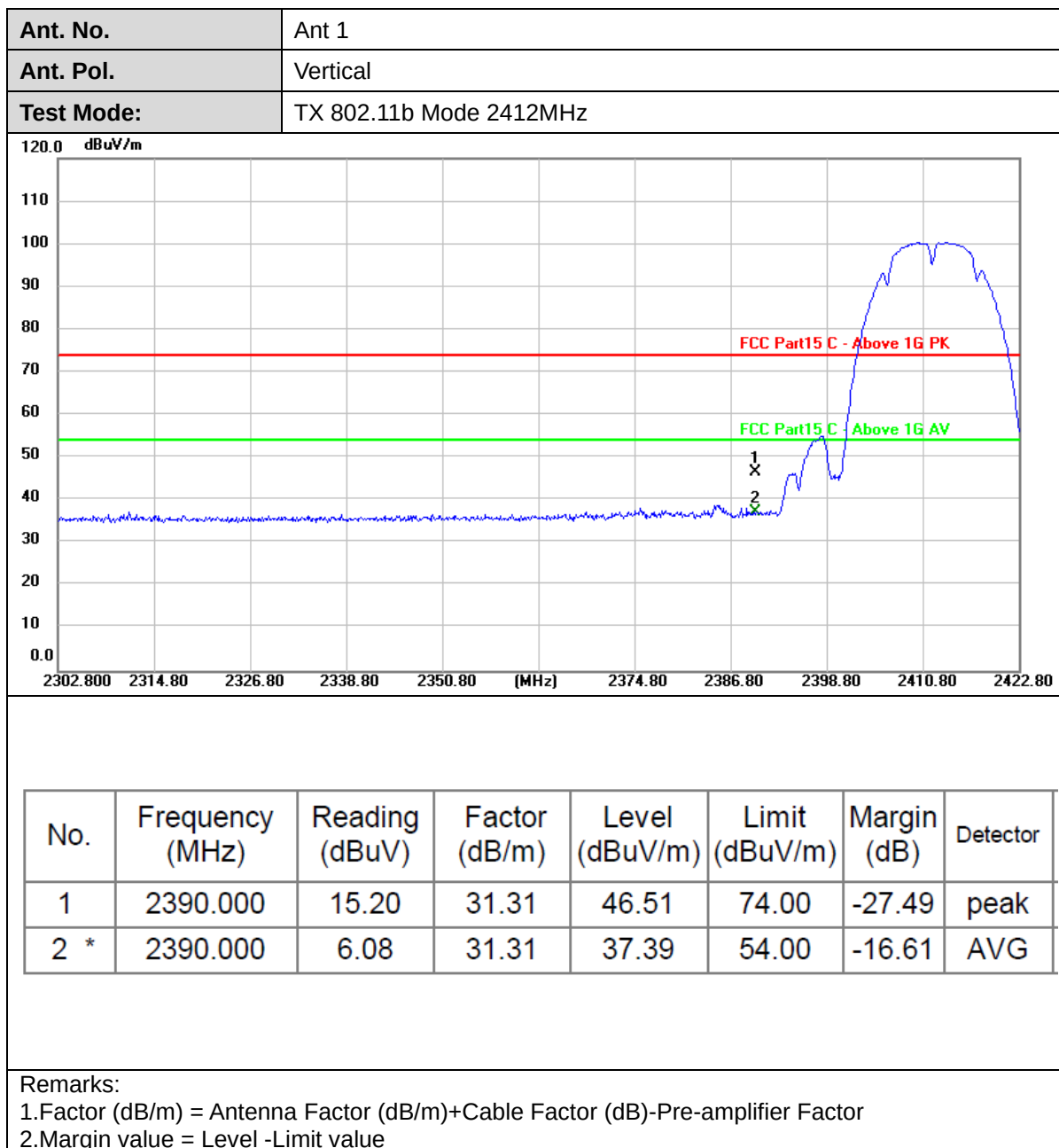
1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna 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.

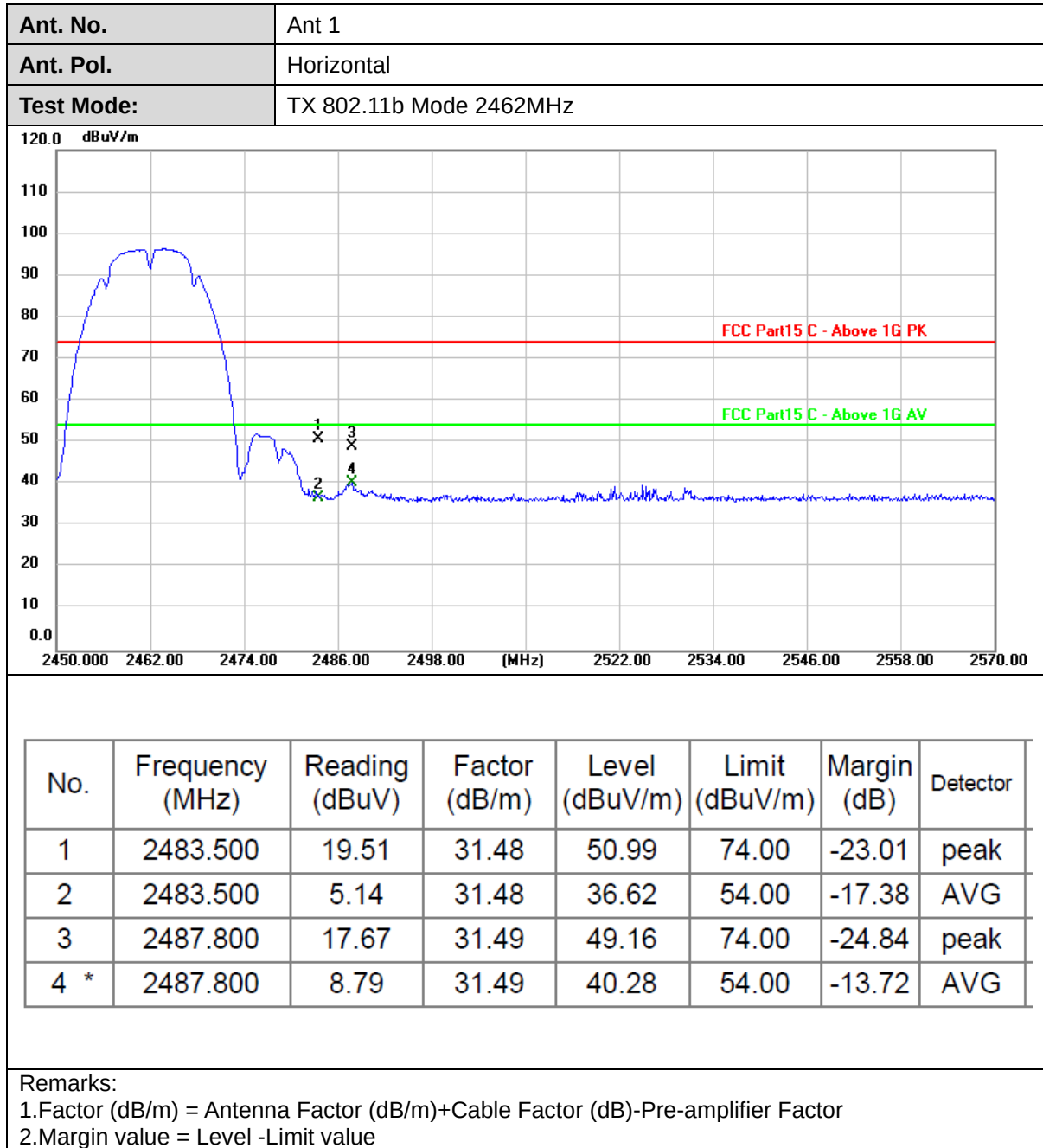
Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 3.8 Duty Cycle.

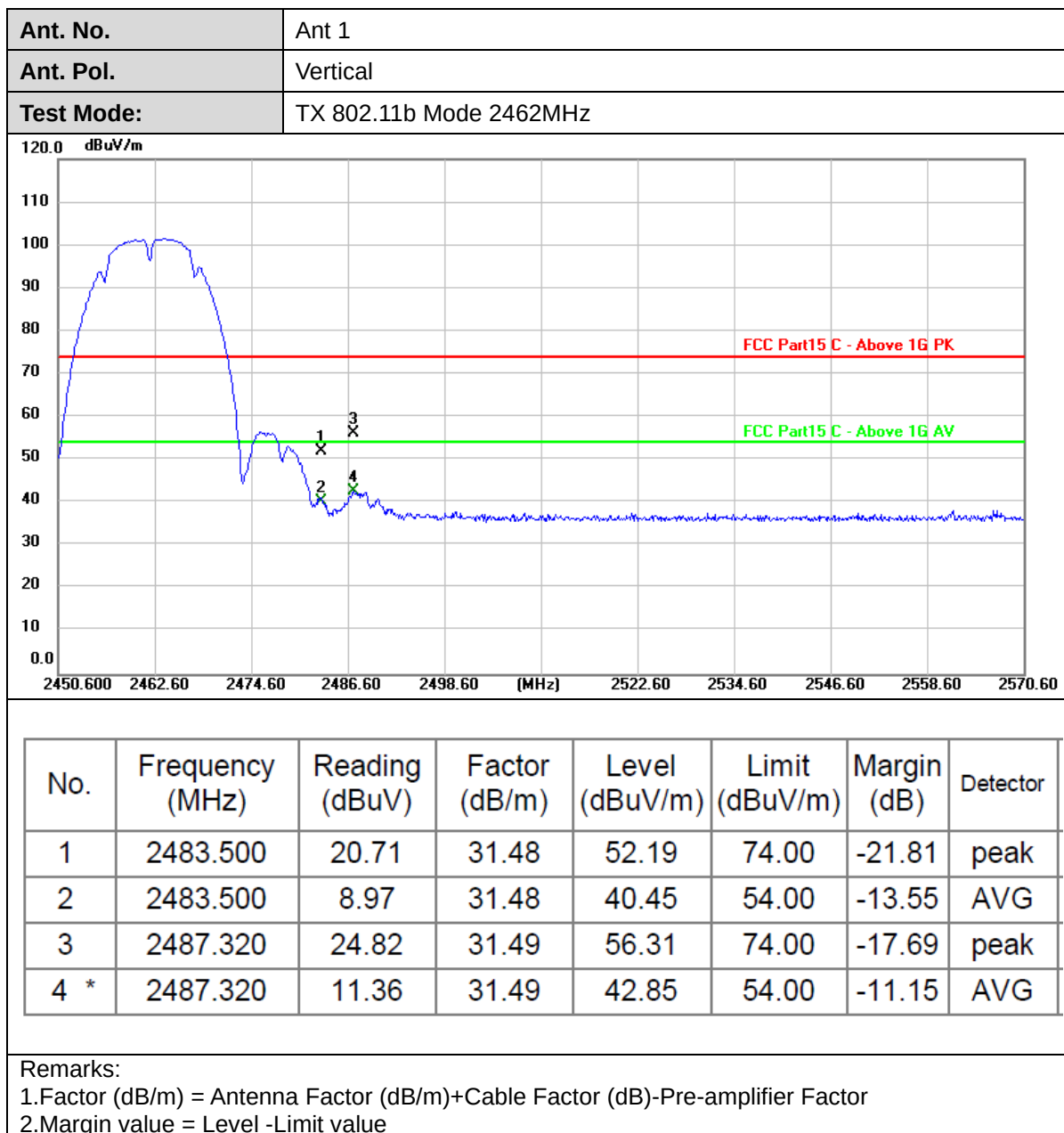
Test Mode

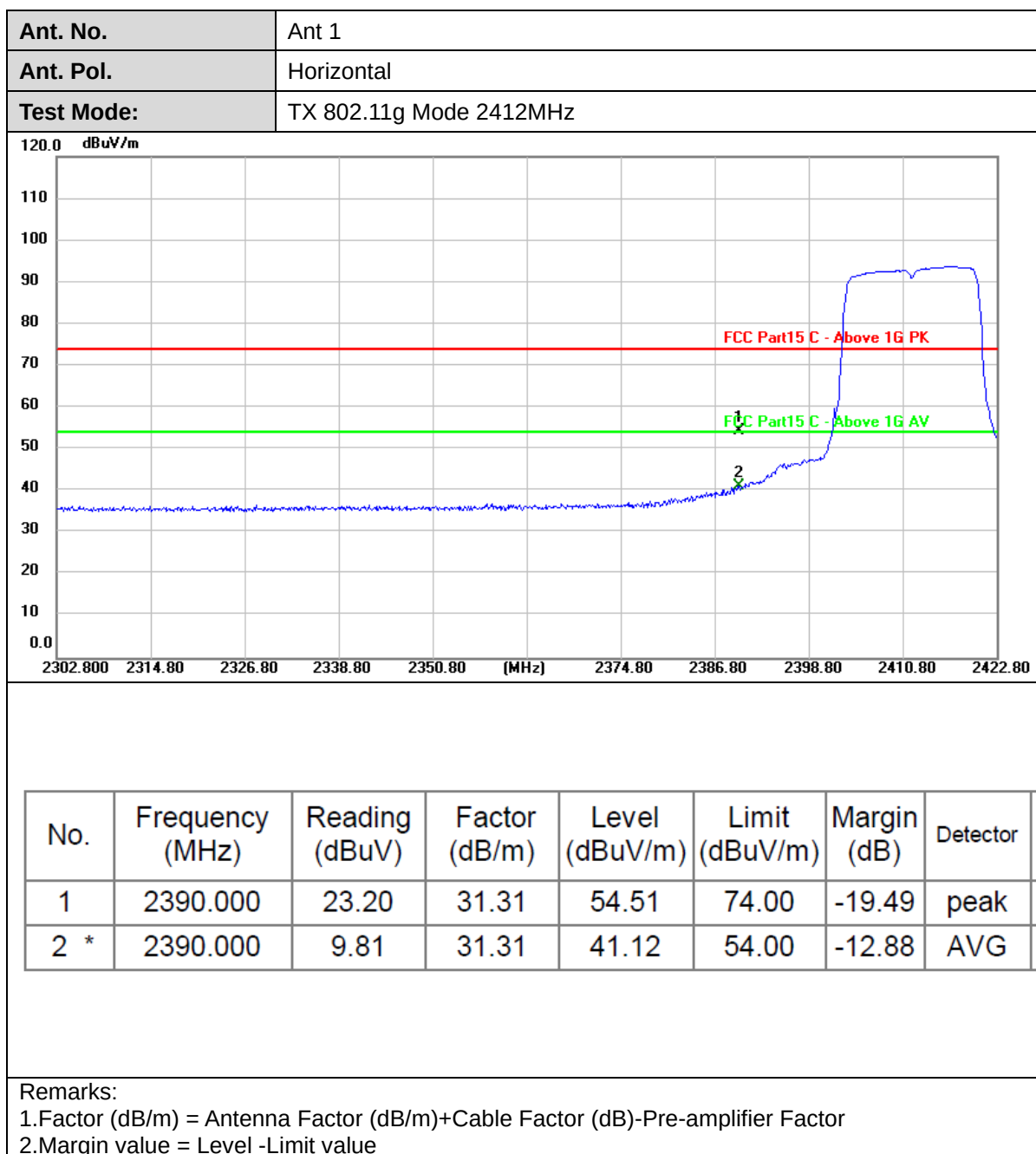
Please refer to the clause 2.4.

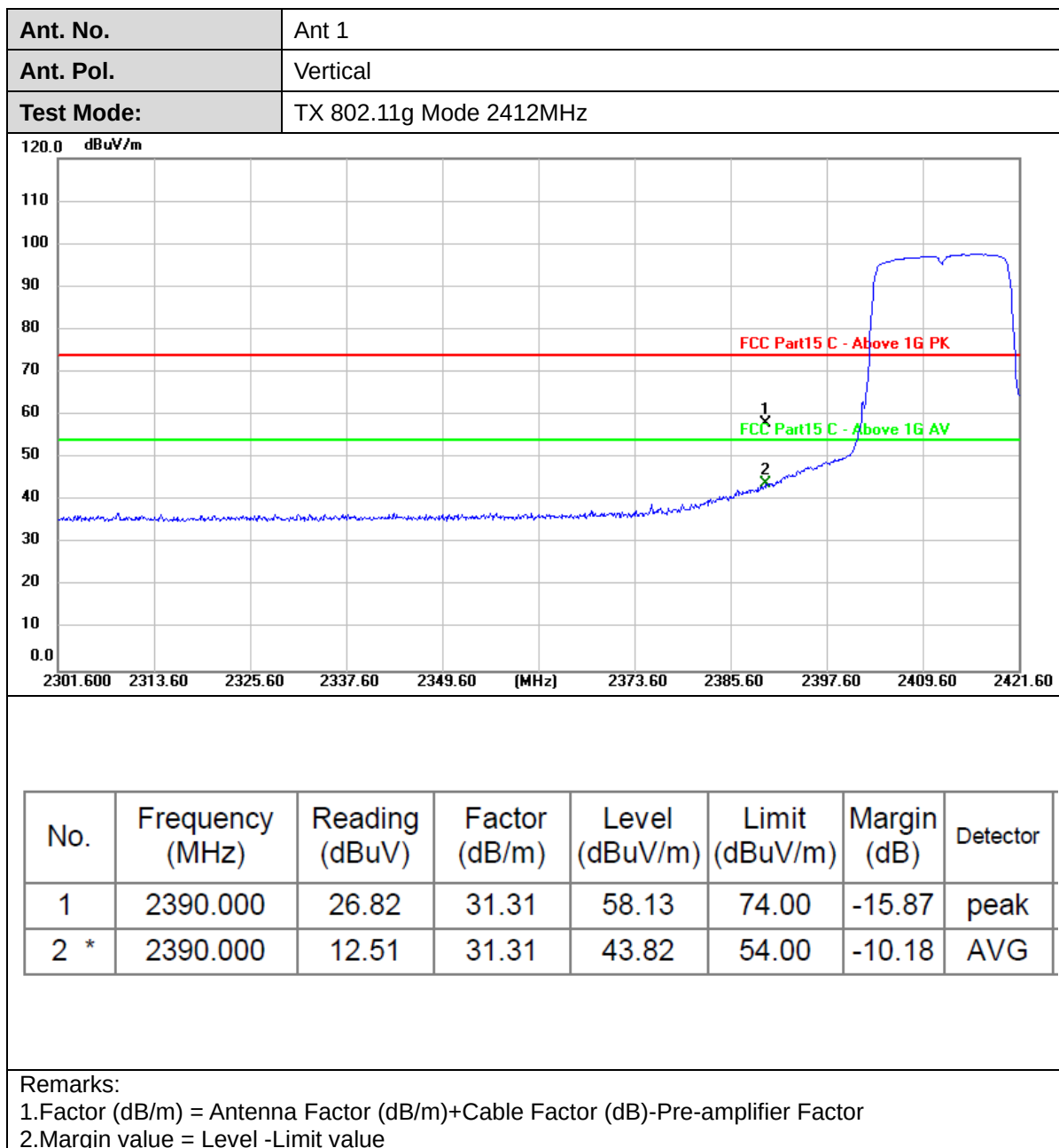
**Test Result**





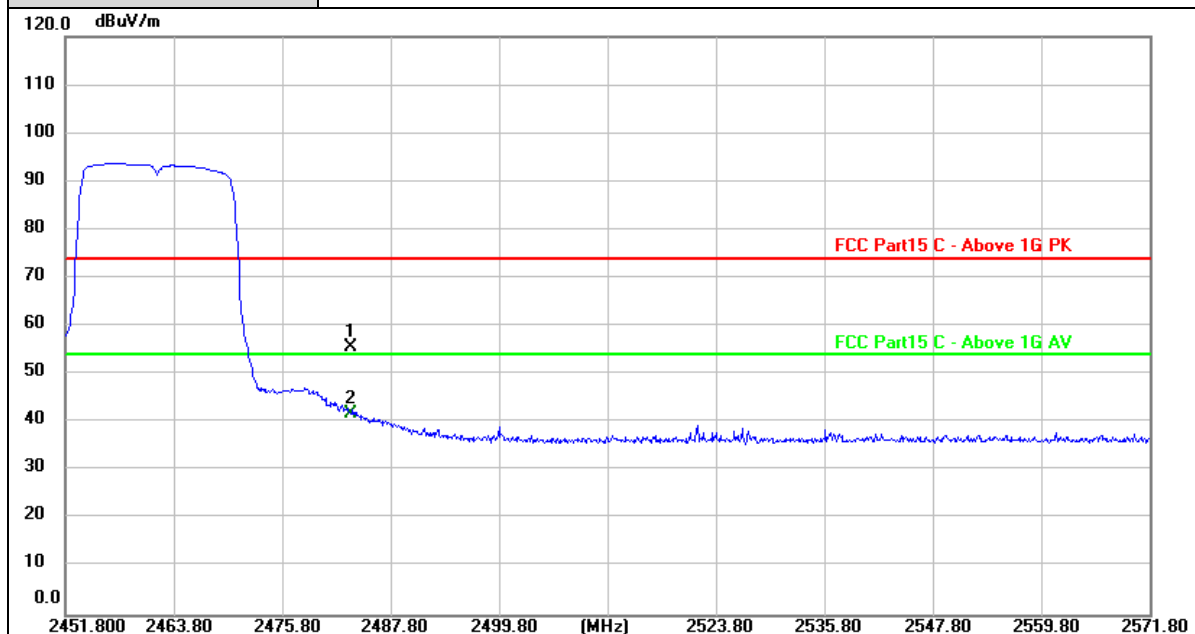








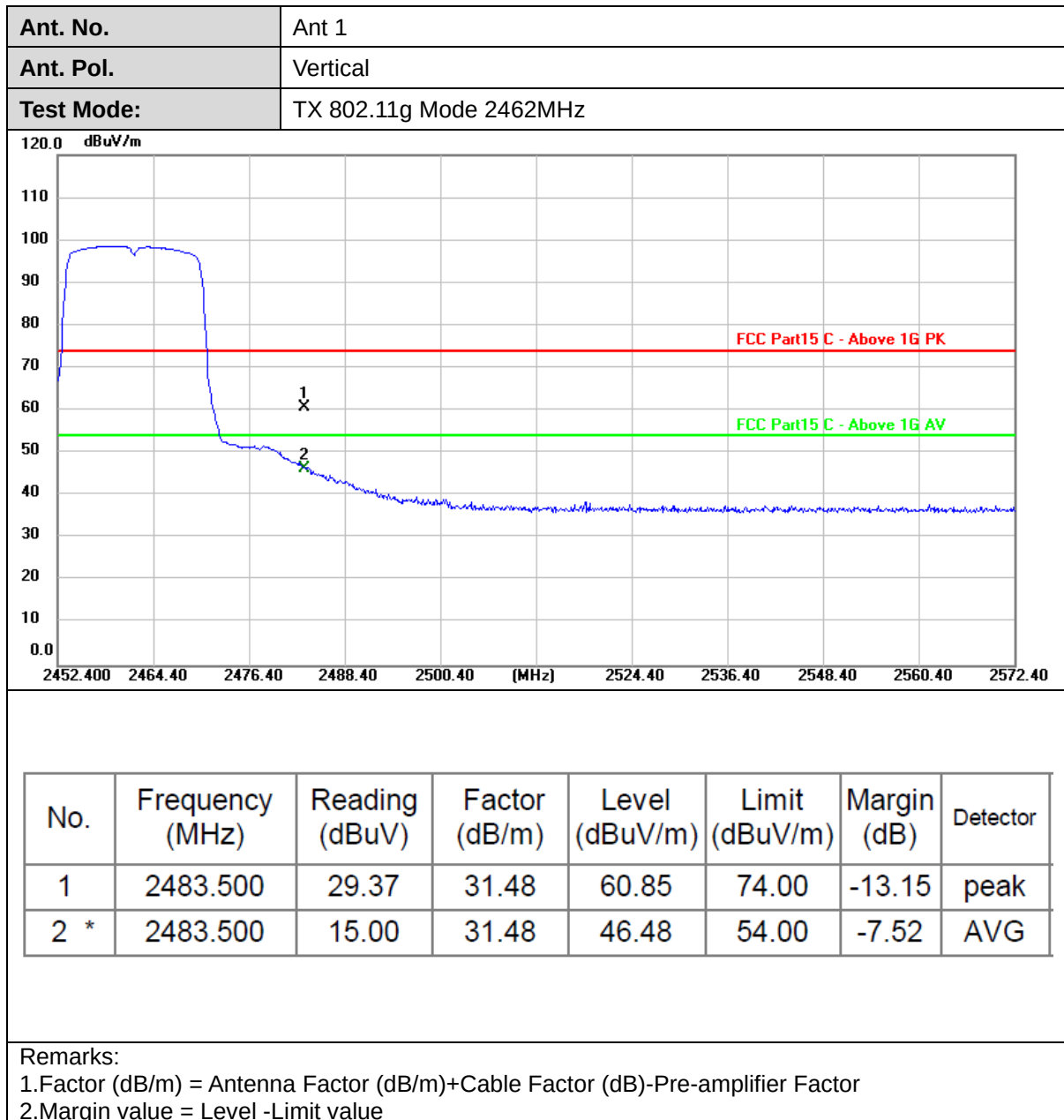
Ant. No.	Ant 1
Ant. Pol.	Horizontal
Test Mode:	TX 802.11g Mode 2462MHz

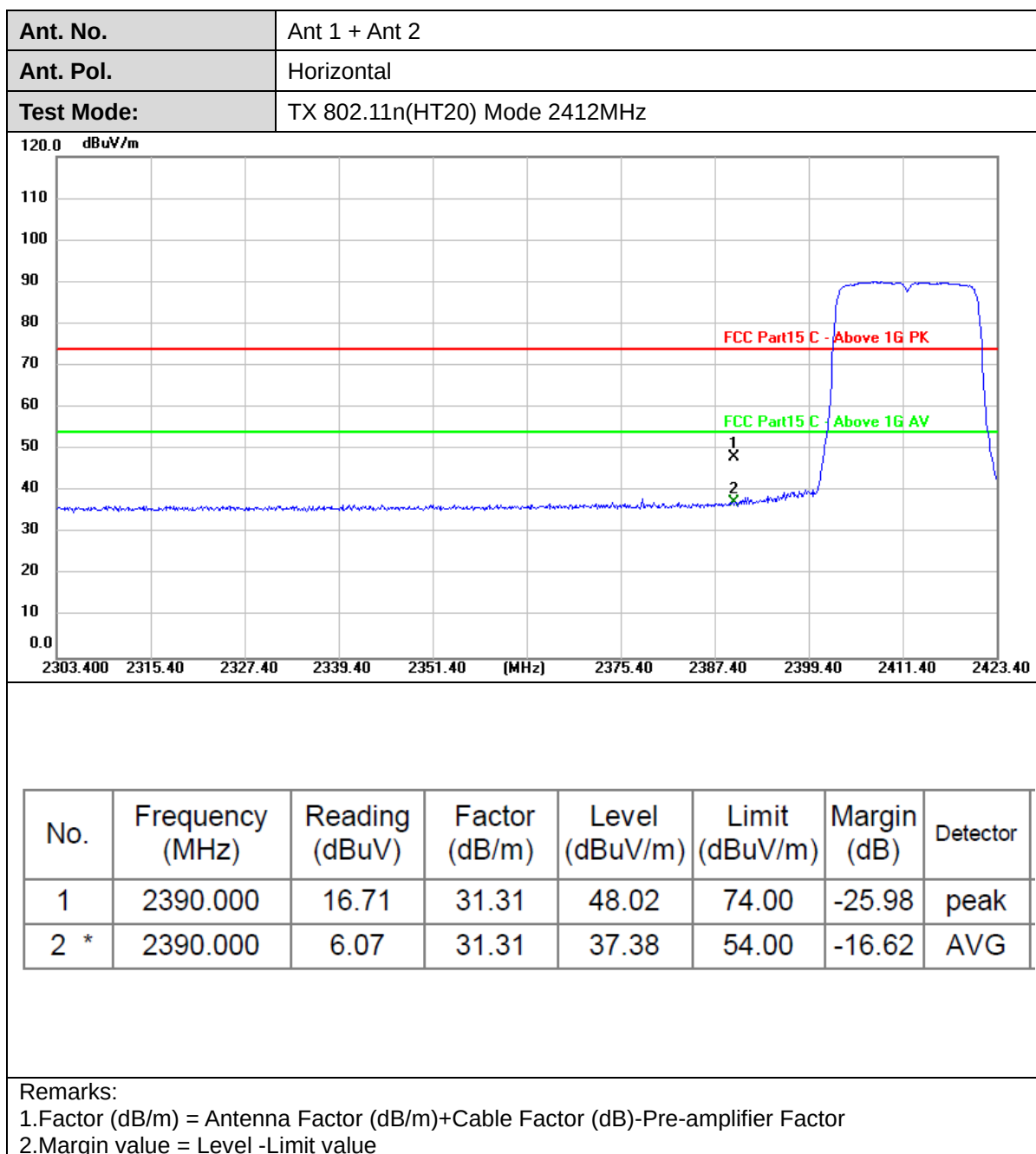


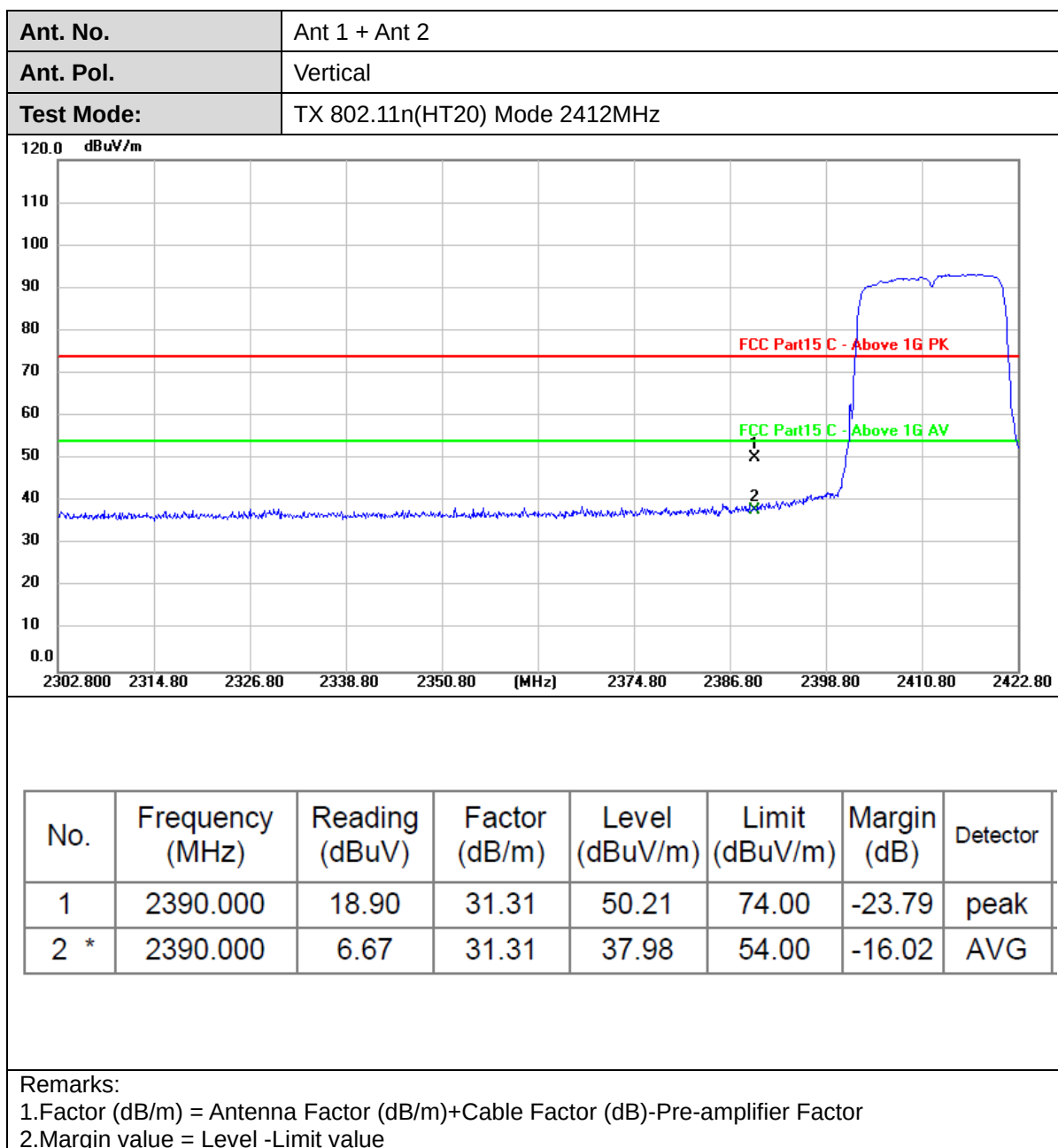
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2483.500	24.06	31.48	55.54	74.00	-18.46	peak
2 *	2483.500	10.45	31.48	41.93	54.00	-12.07	AVG

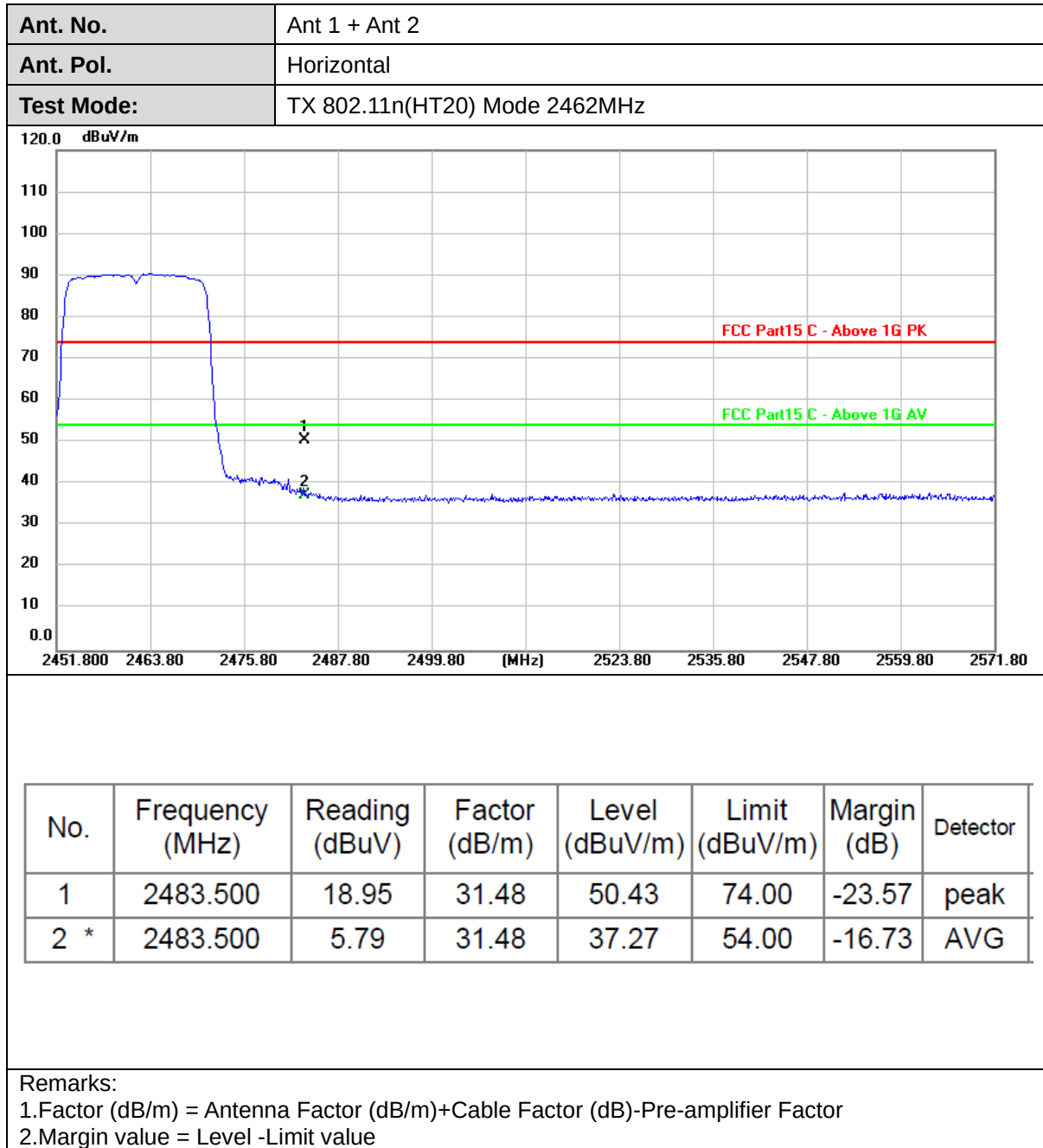
Remarks:

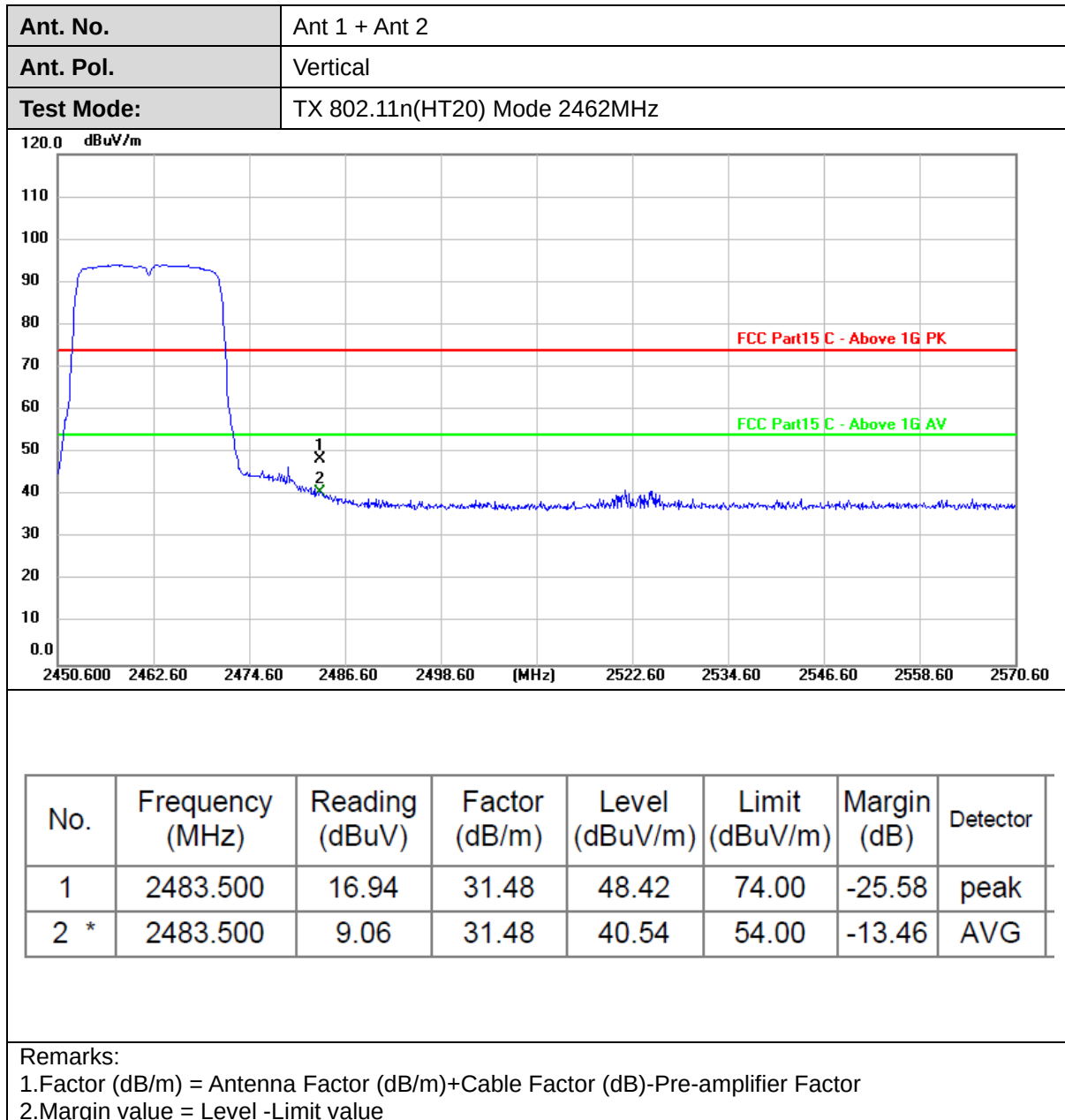
1. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) - Pre-amplifier Factor
2. Margin value = Level - Limit value

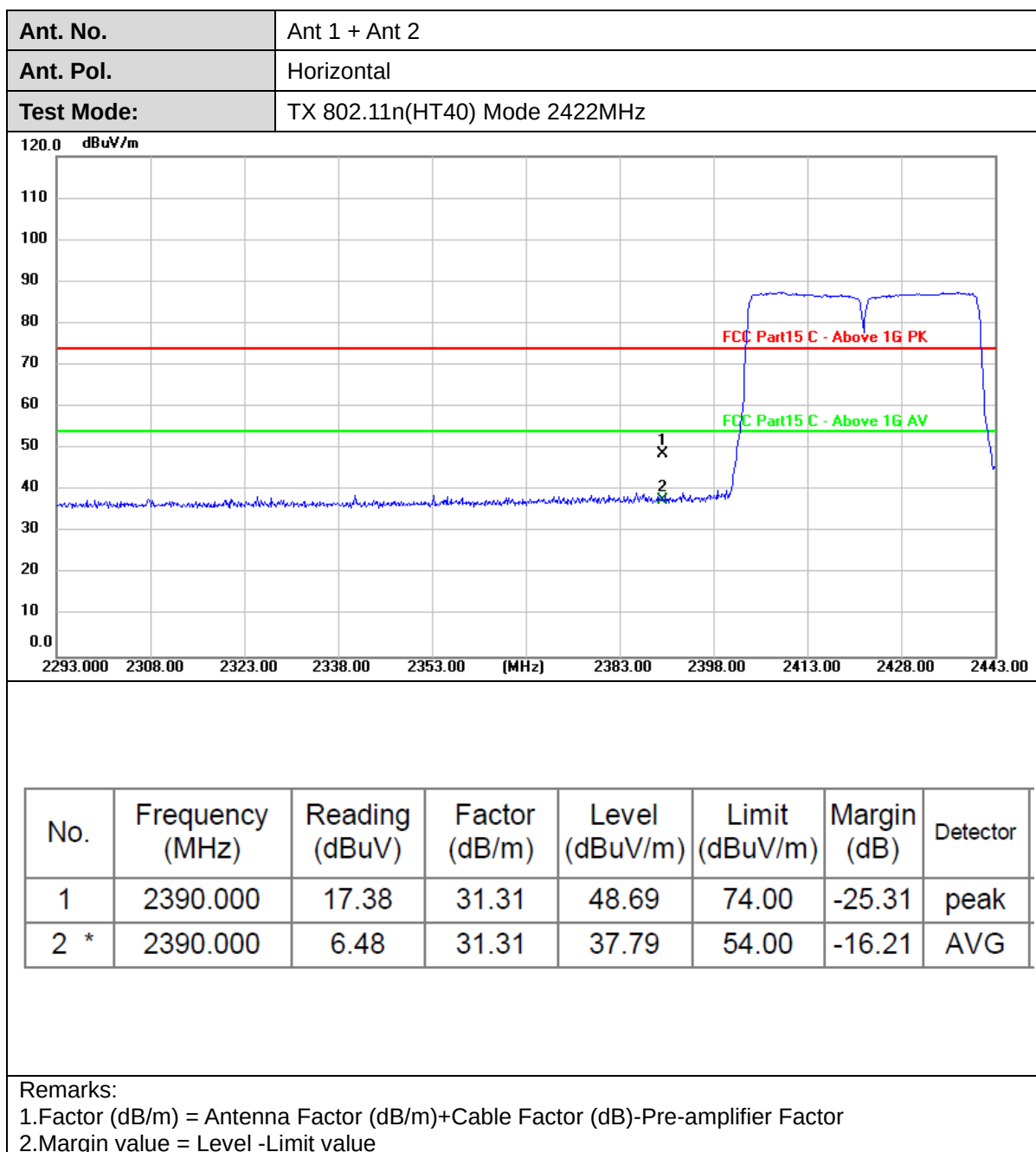


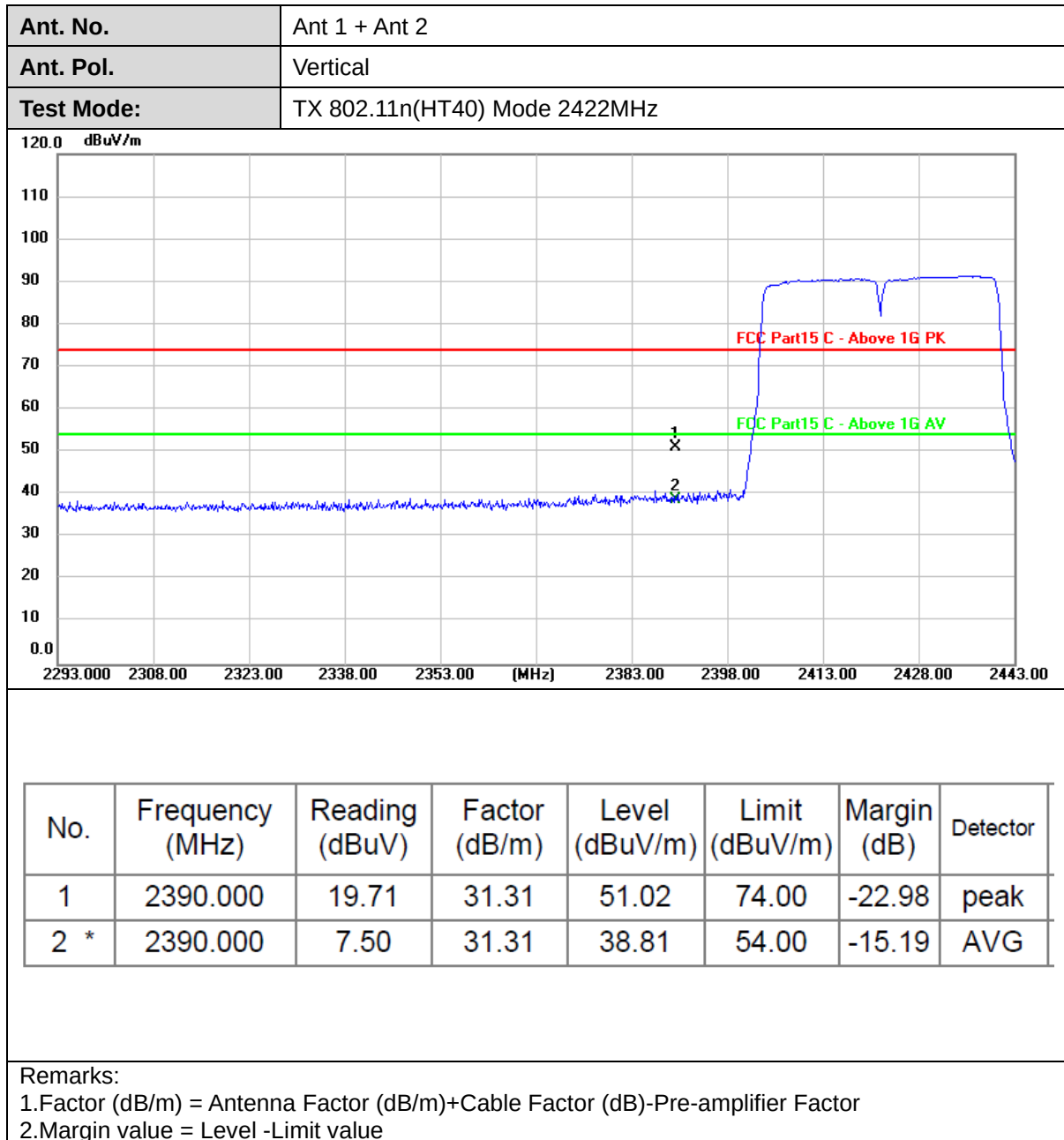


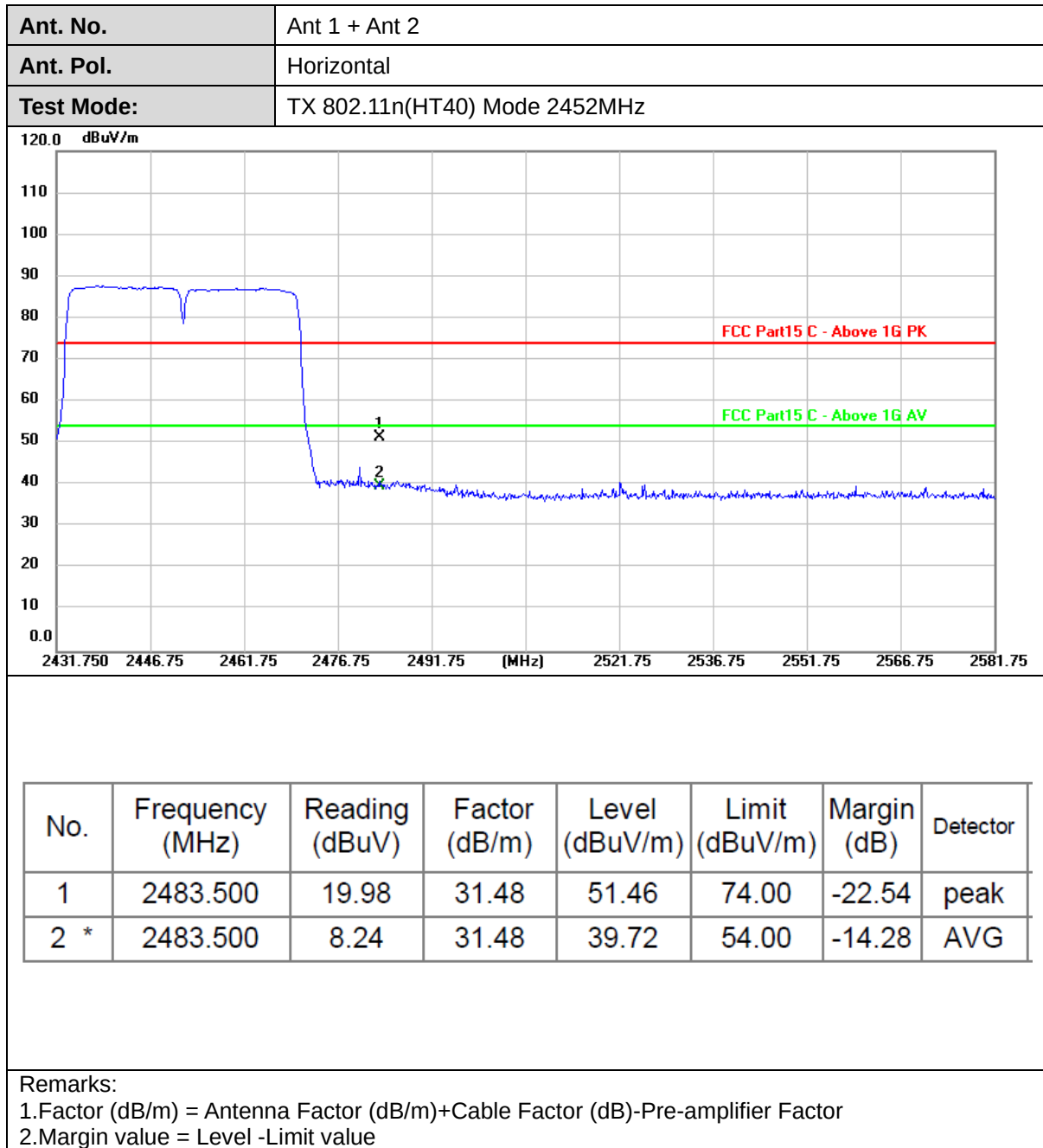


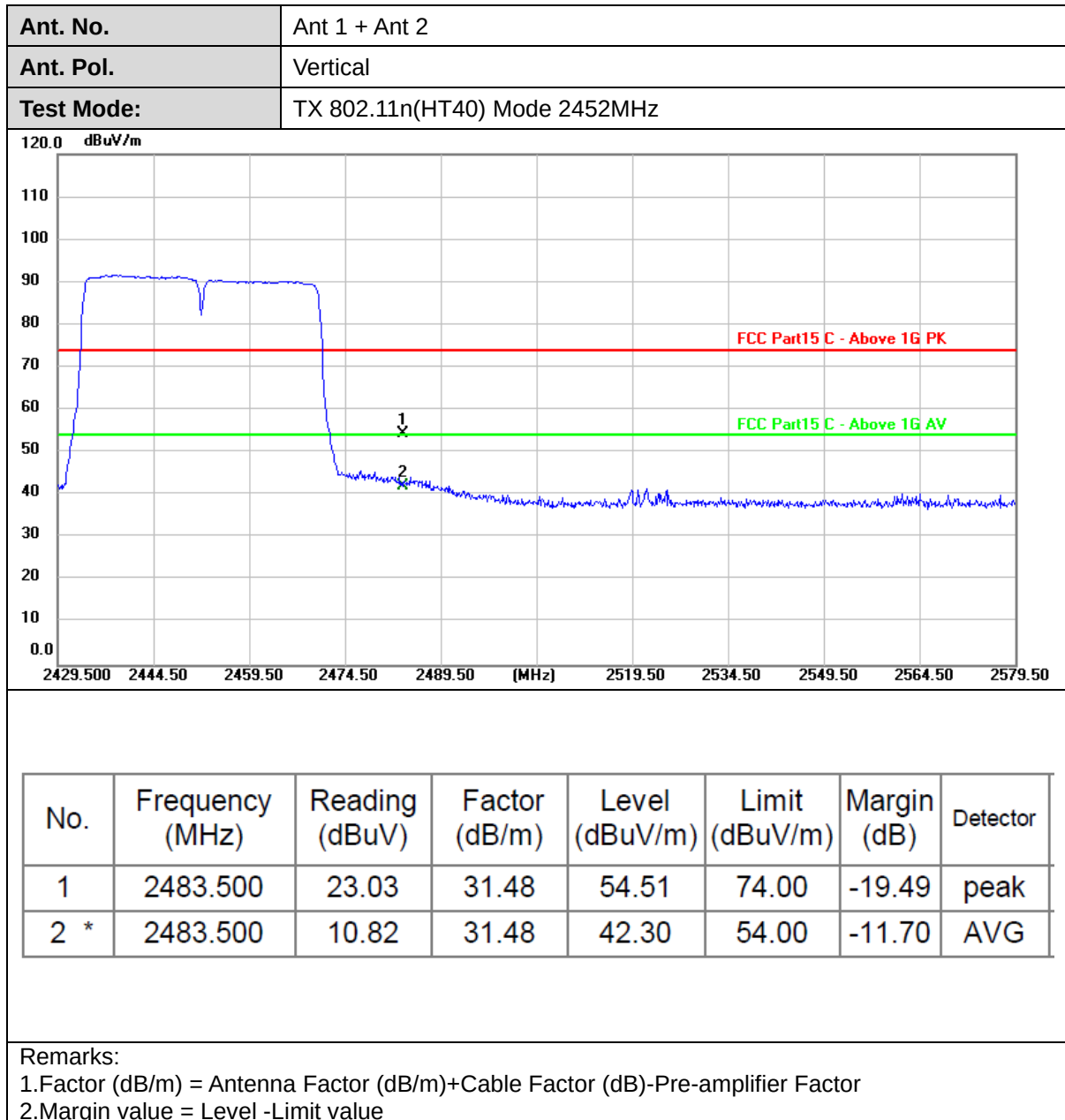


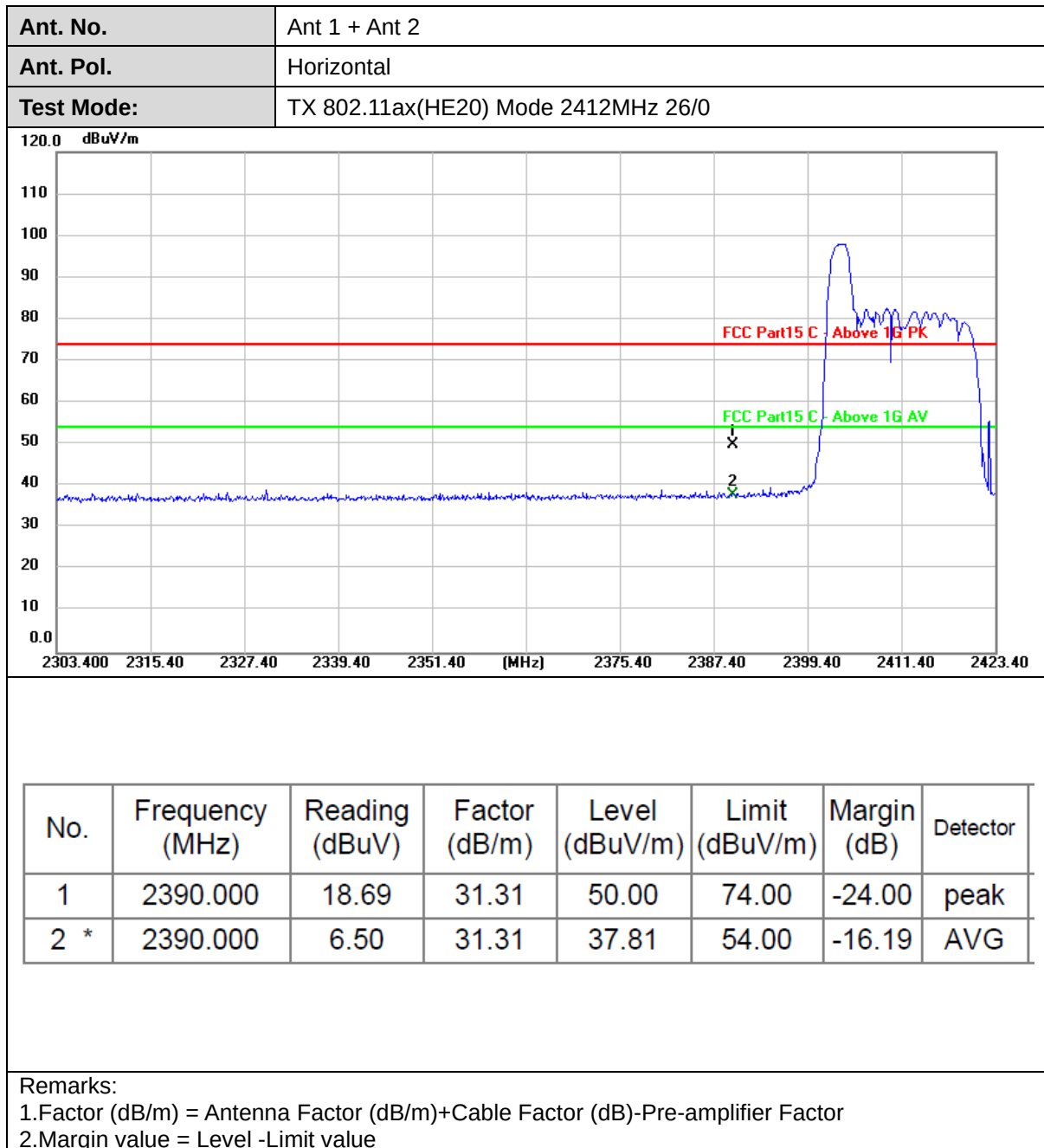


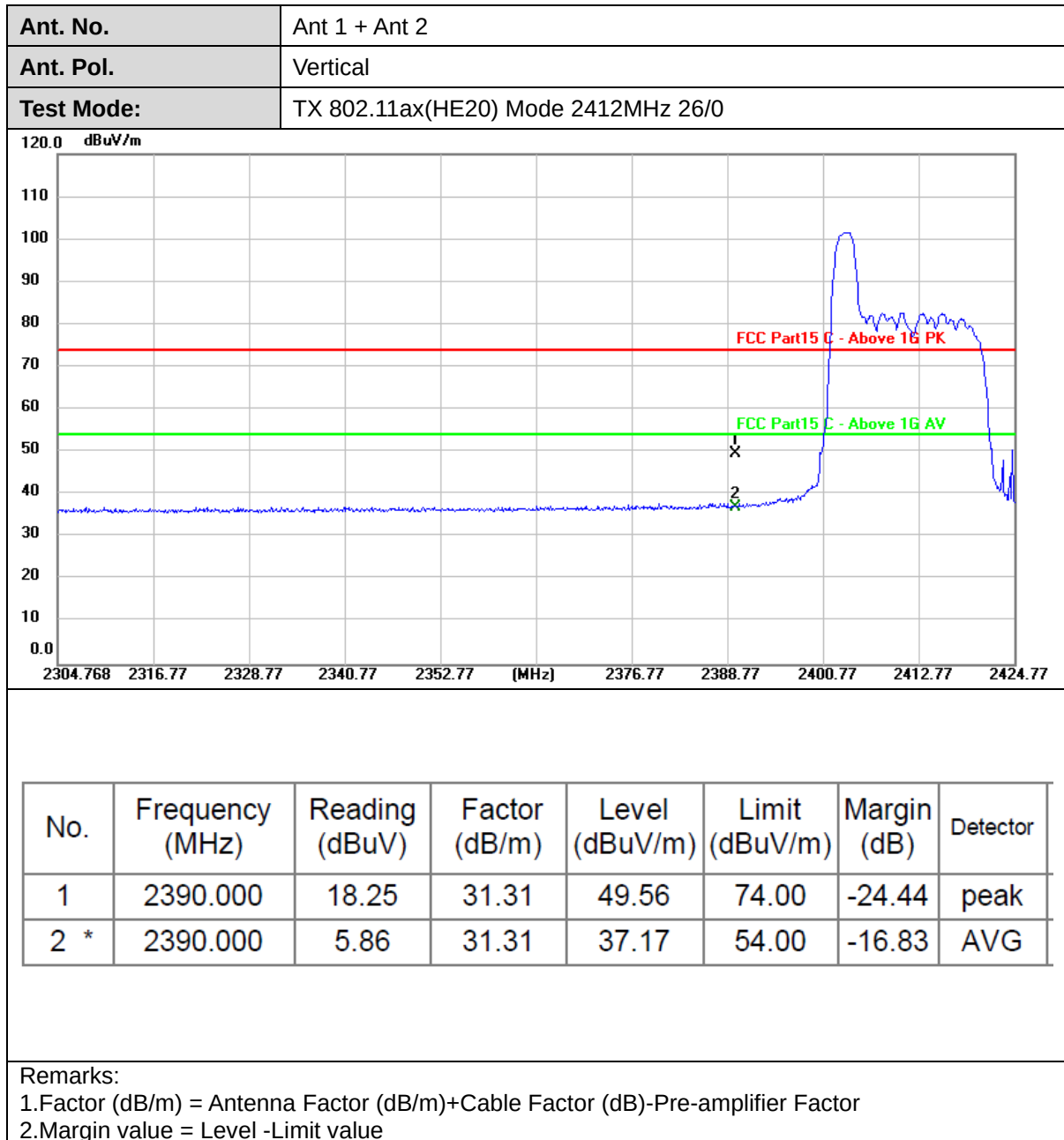


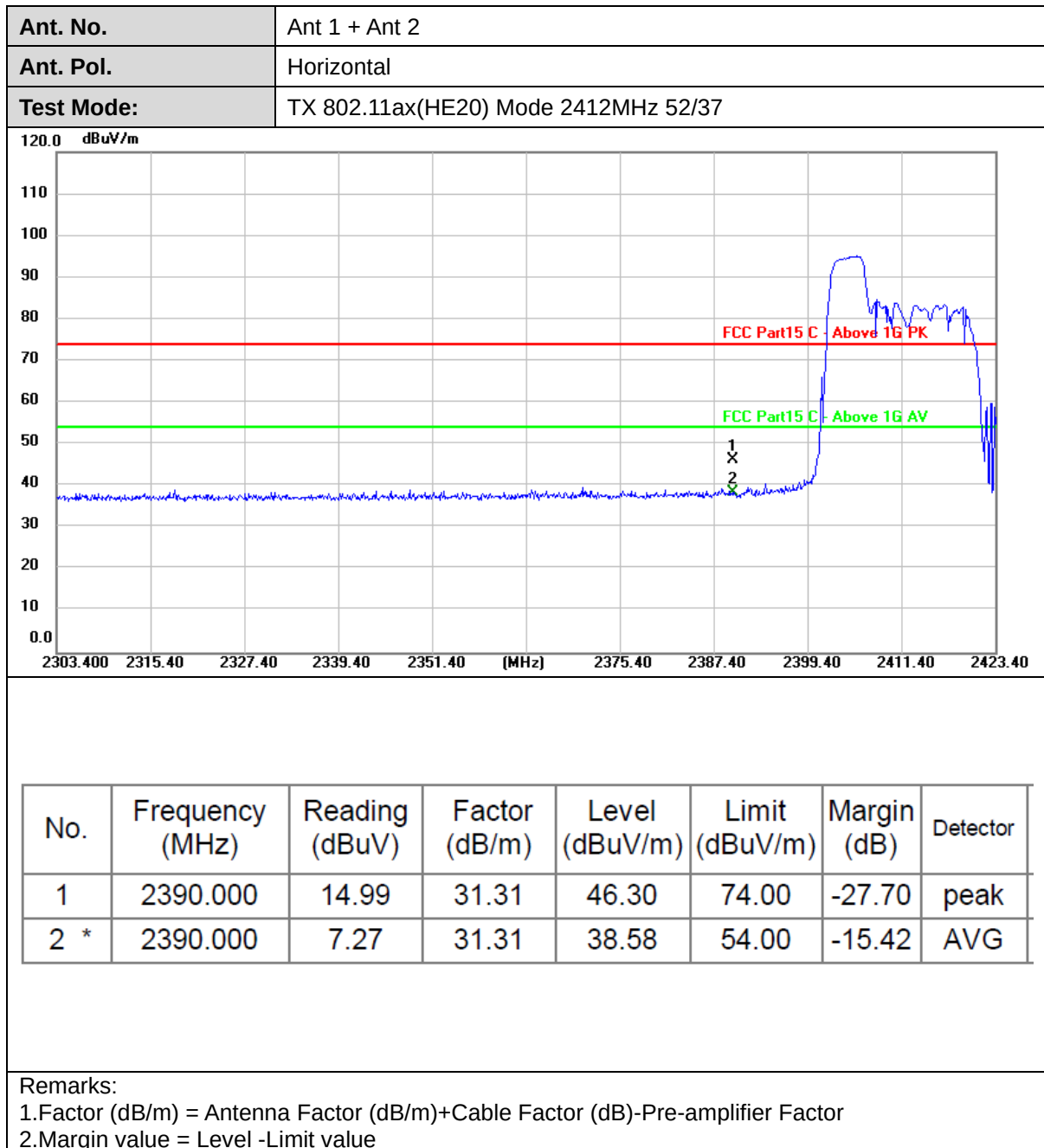


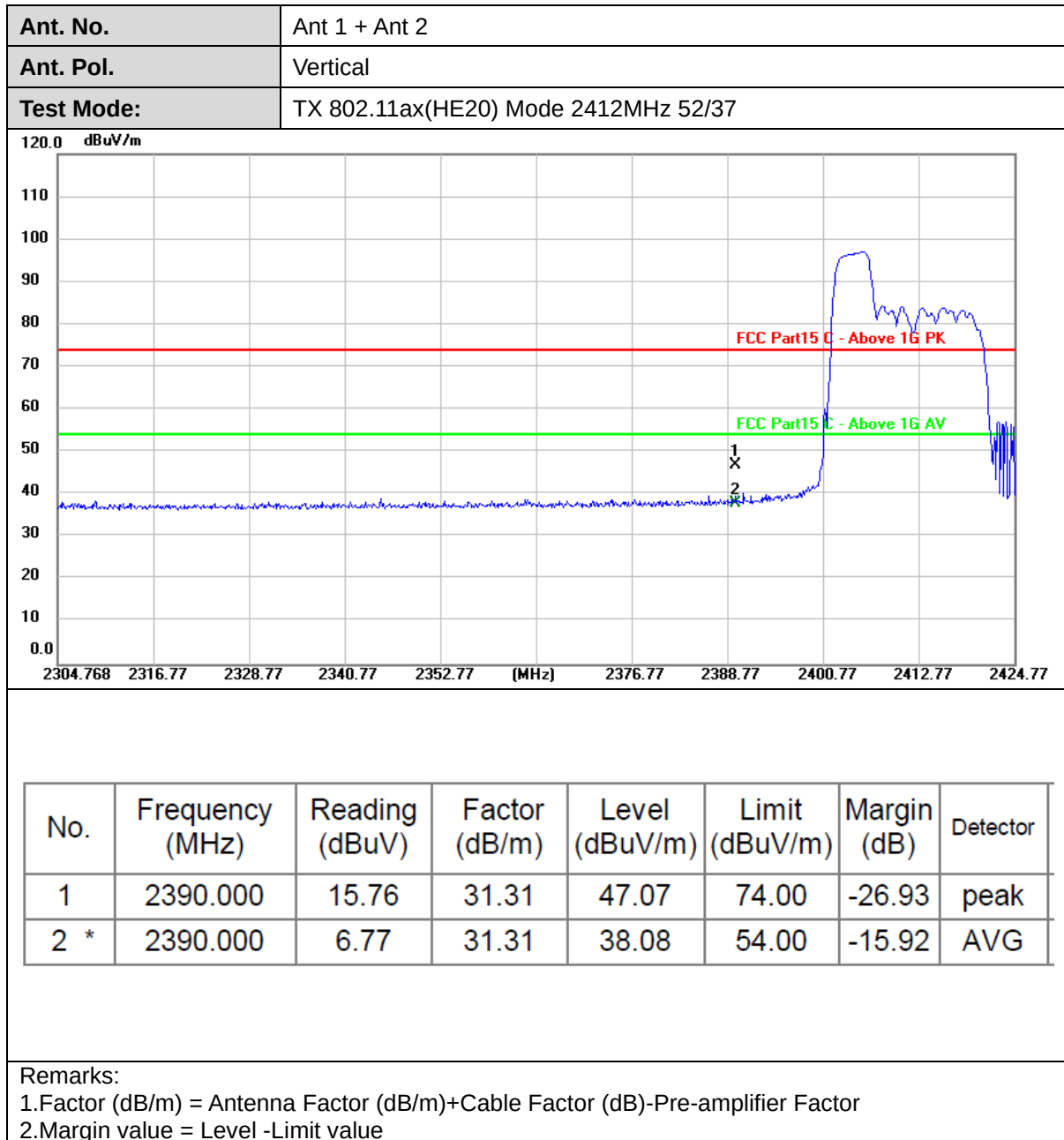


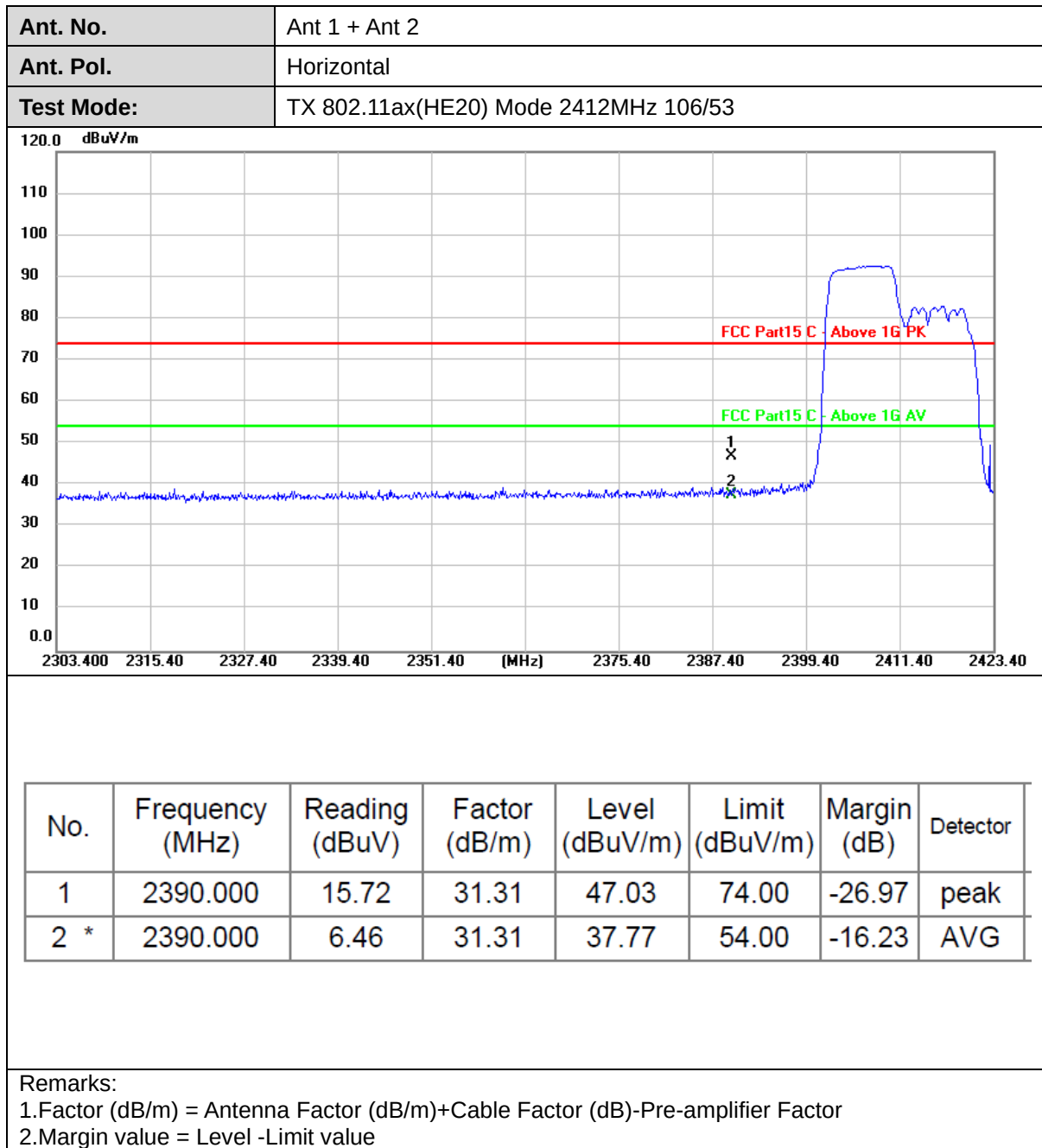


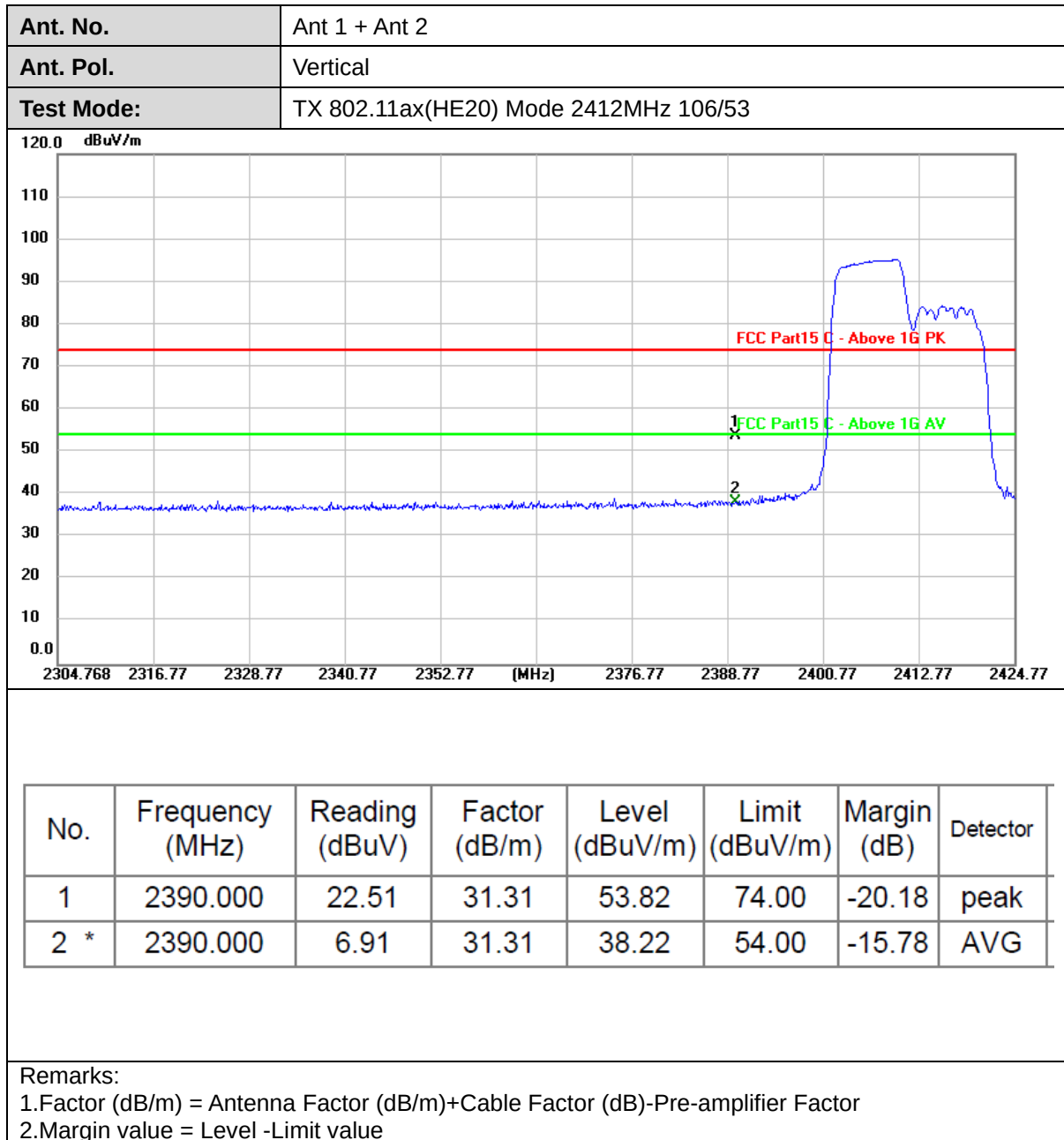


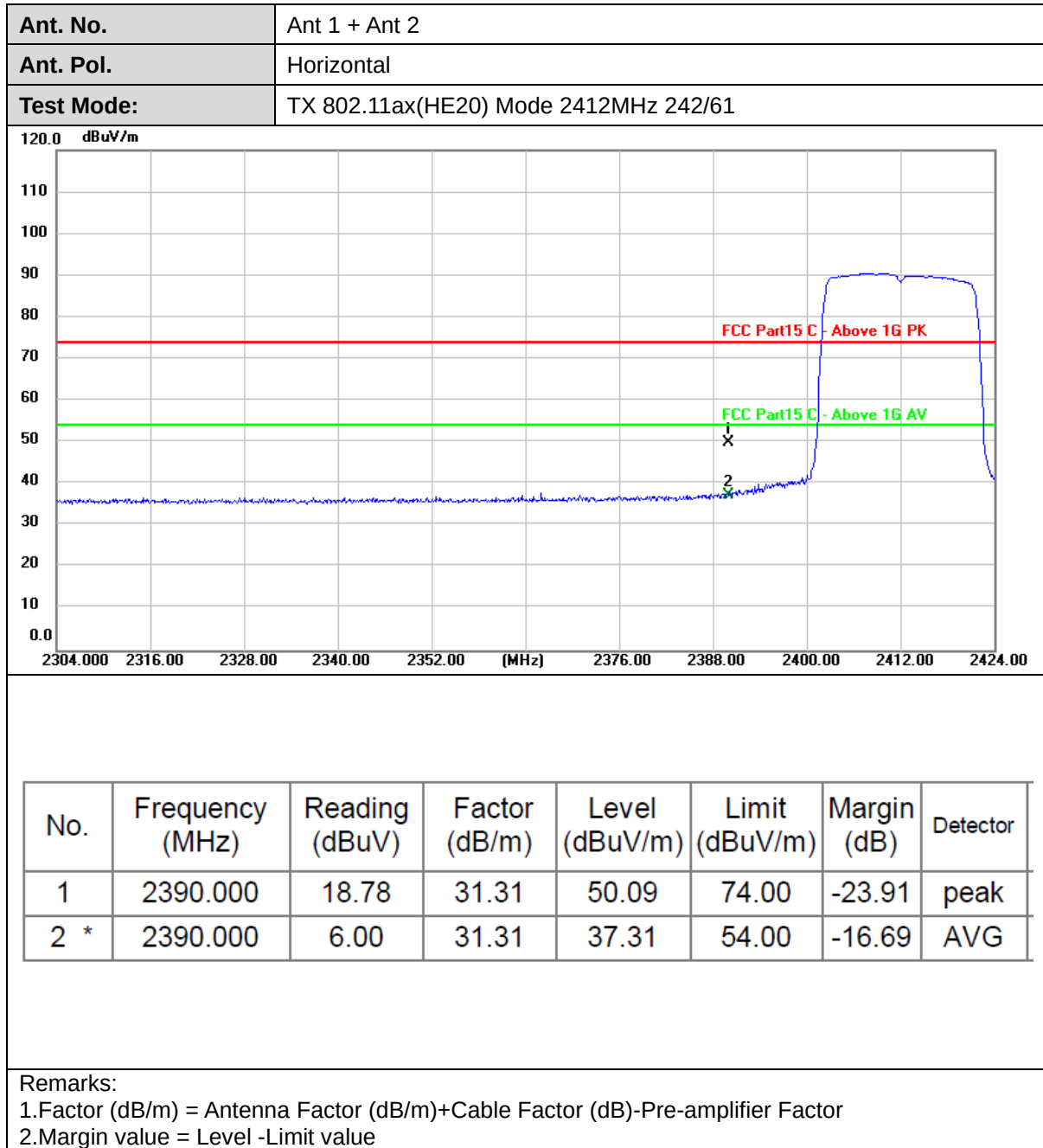


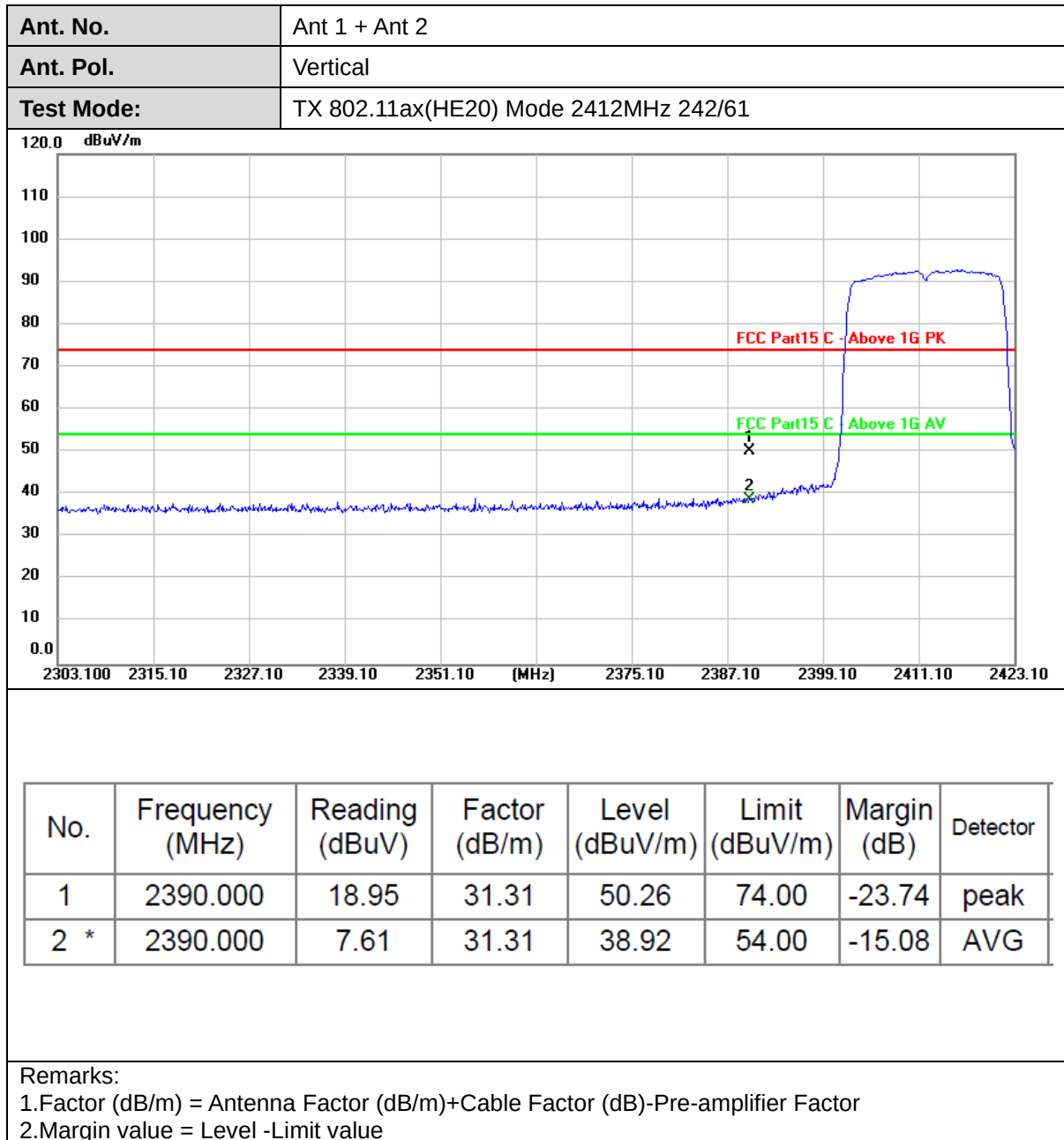


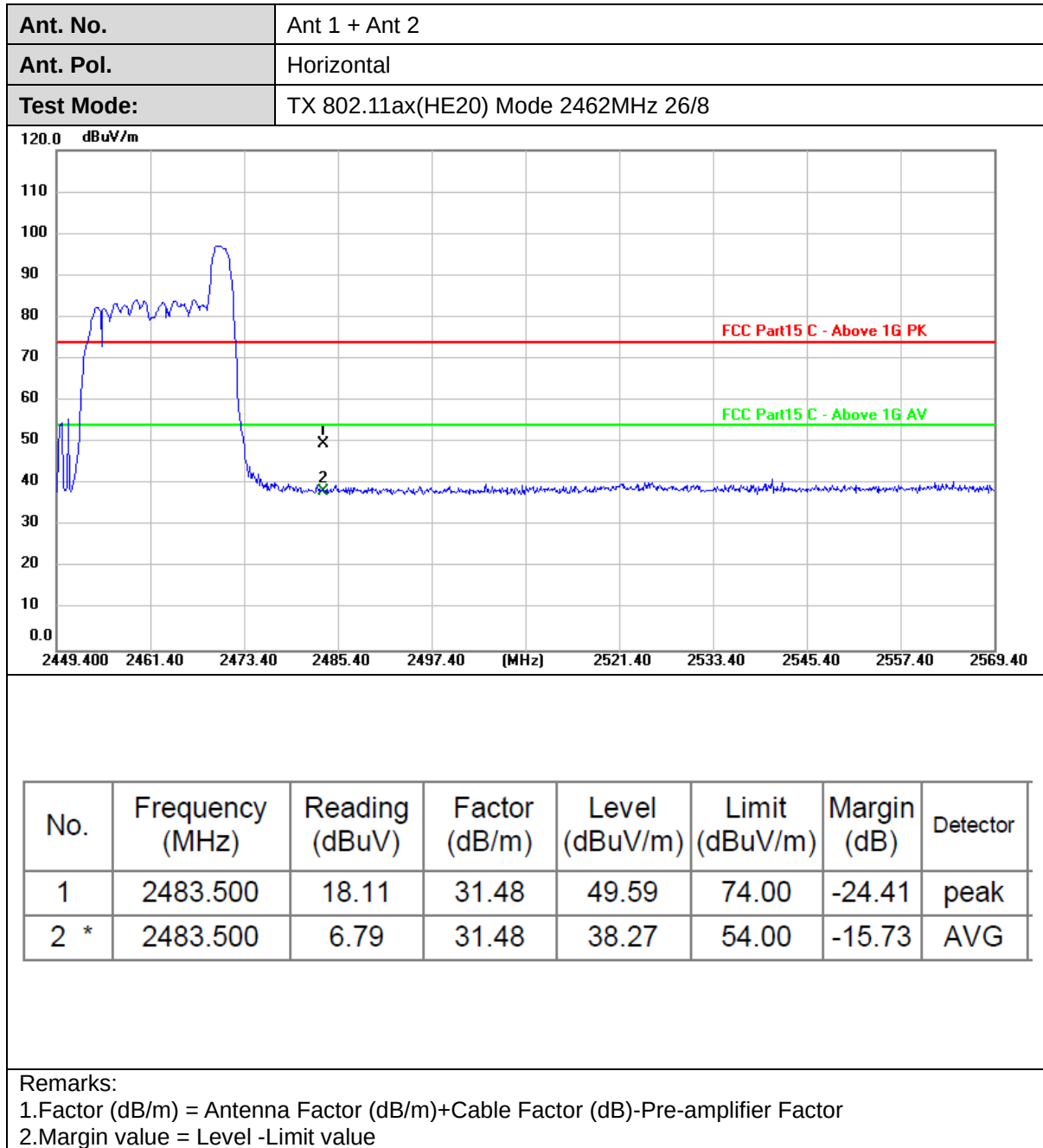


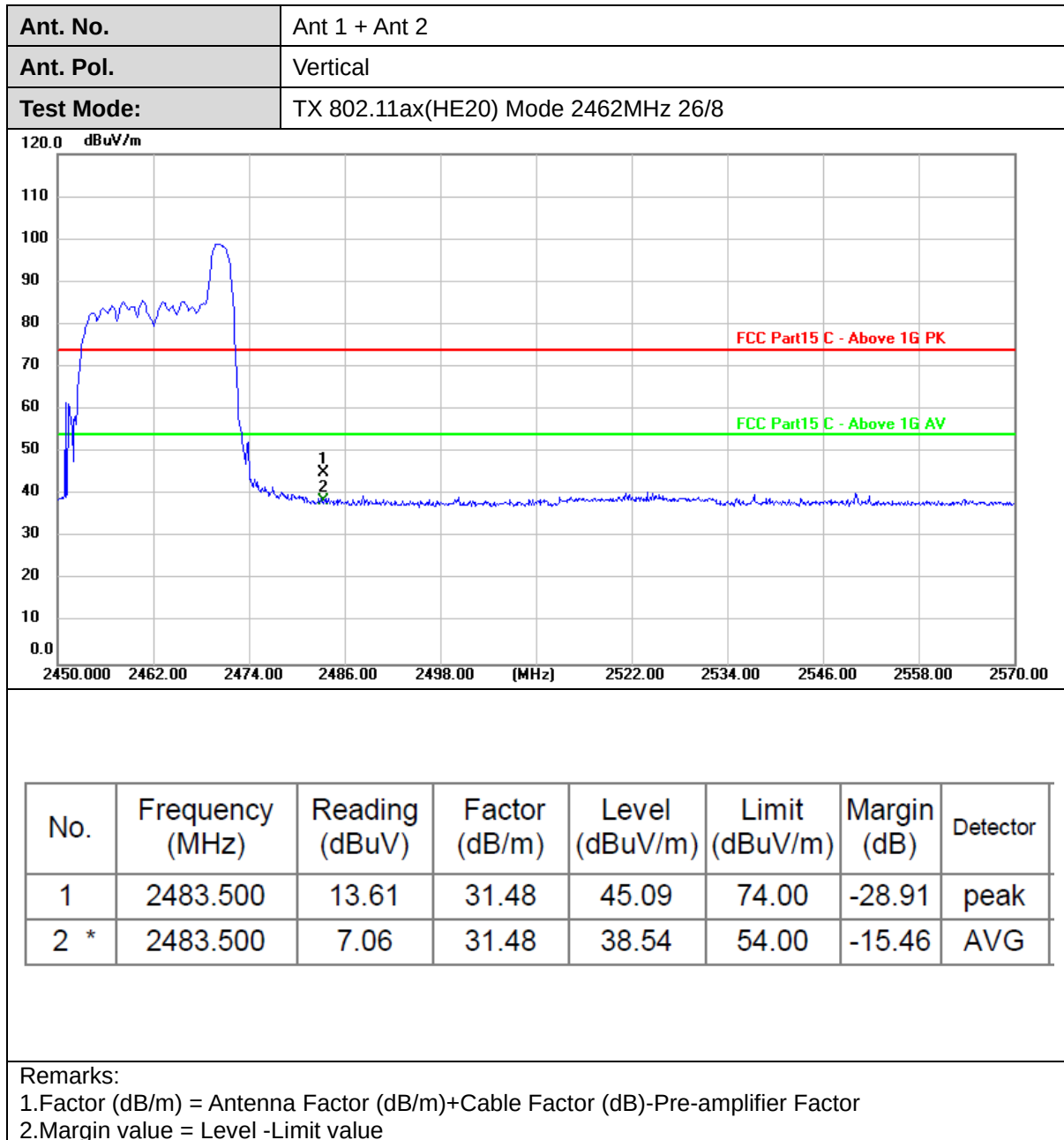


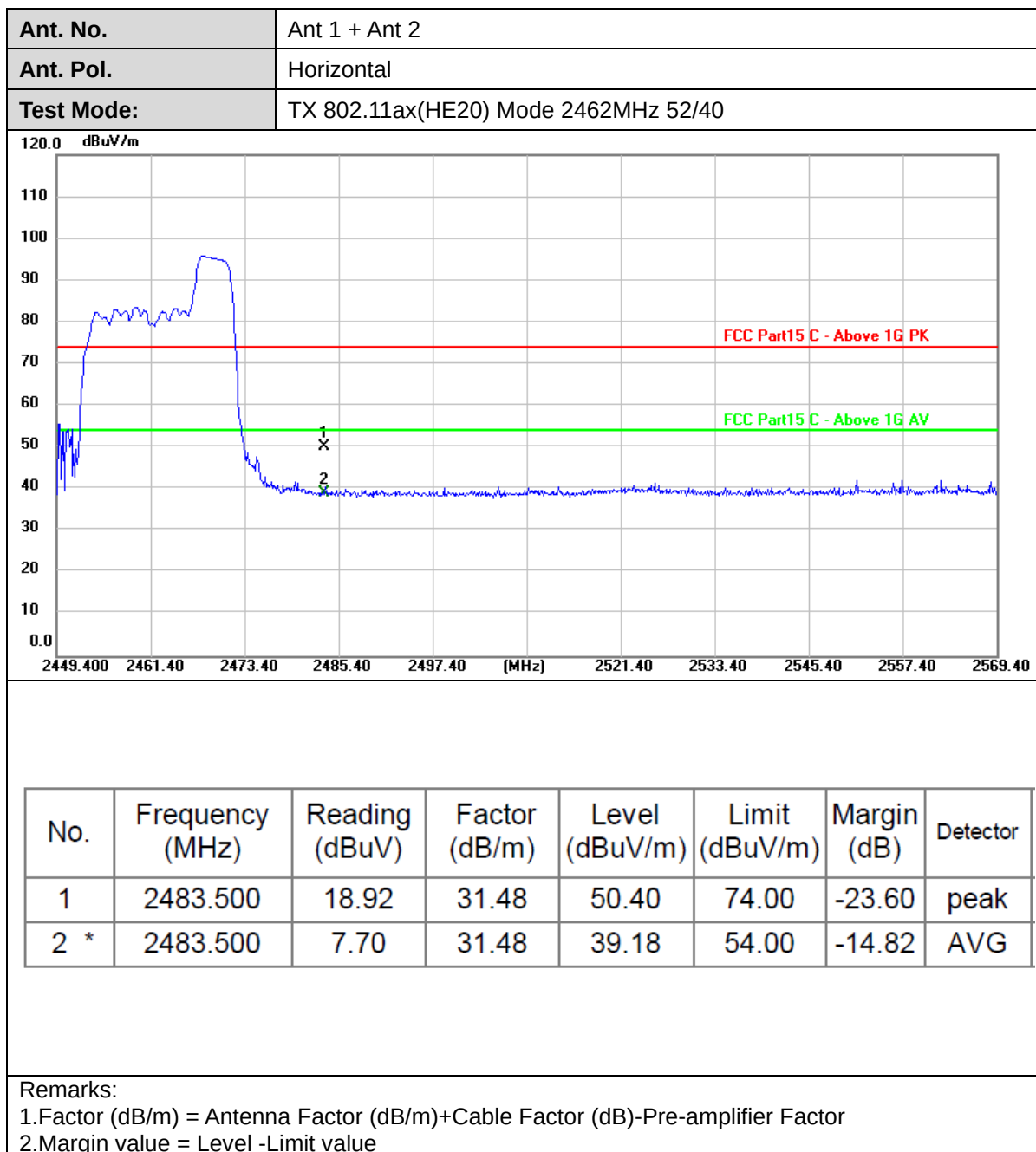


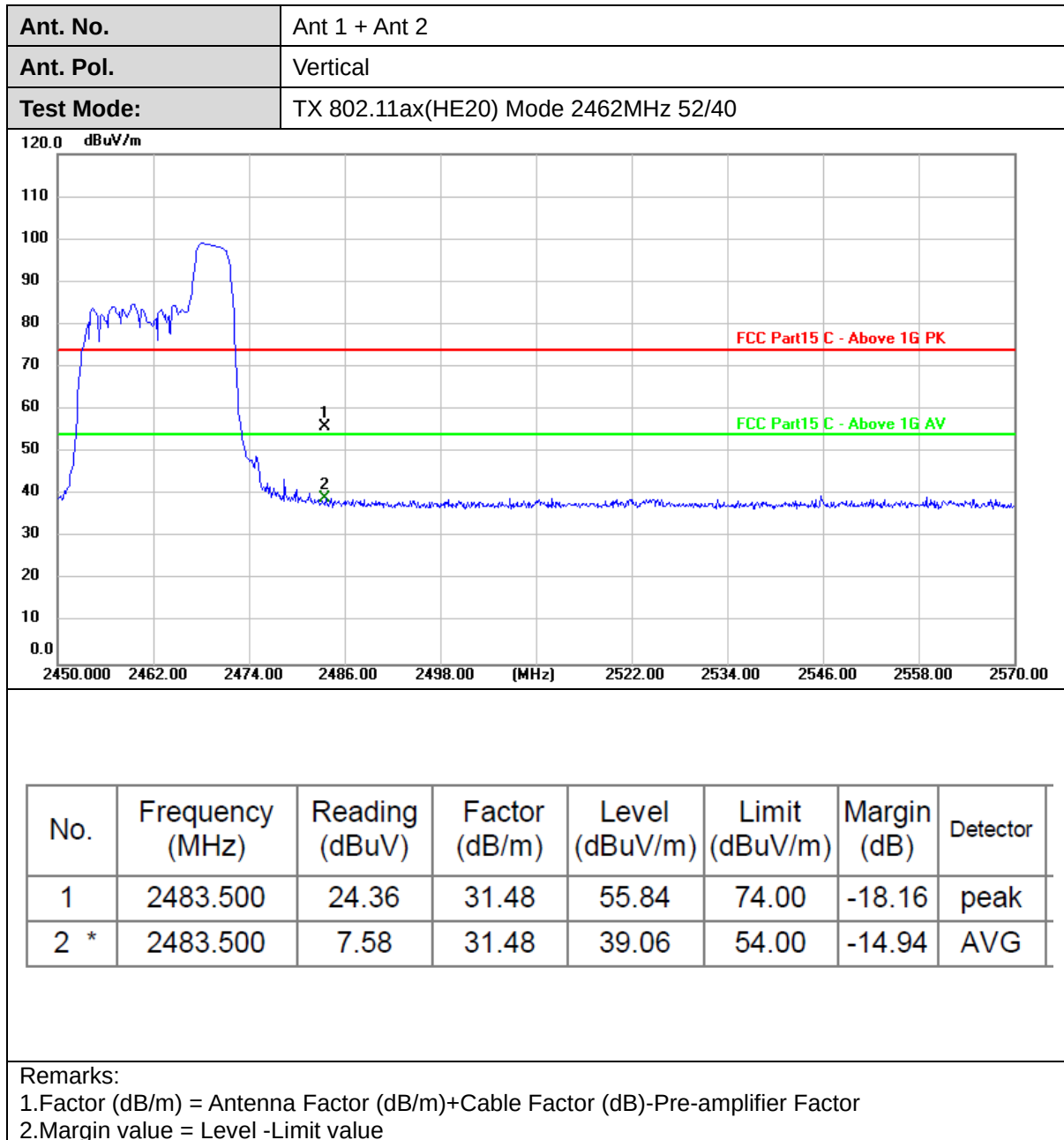


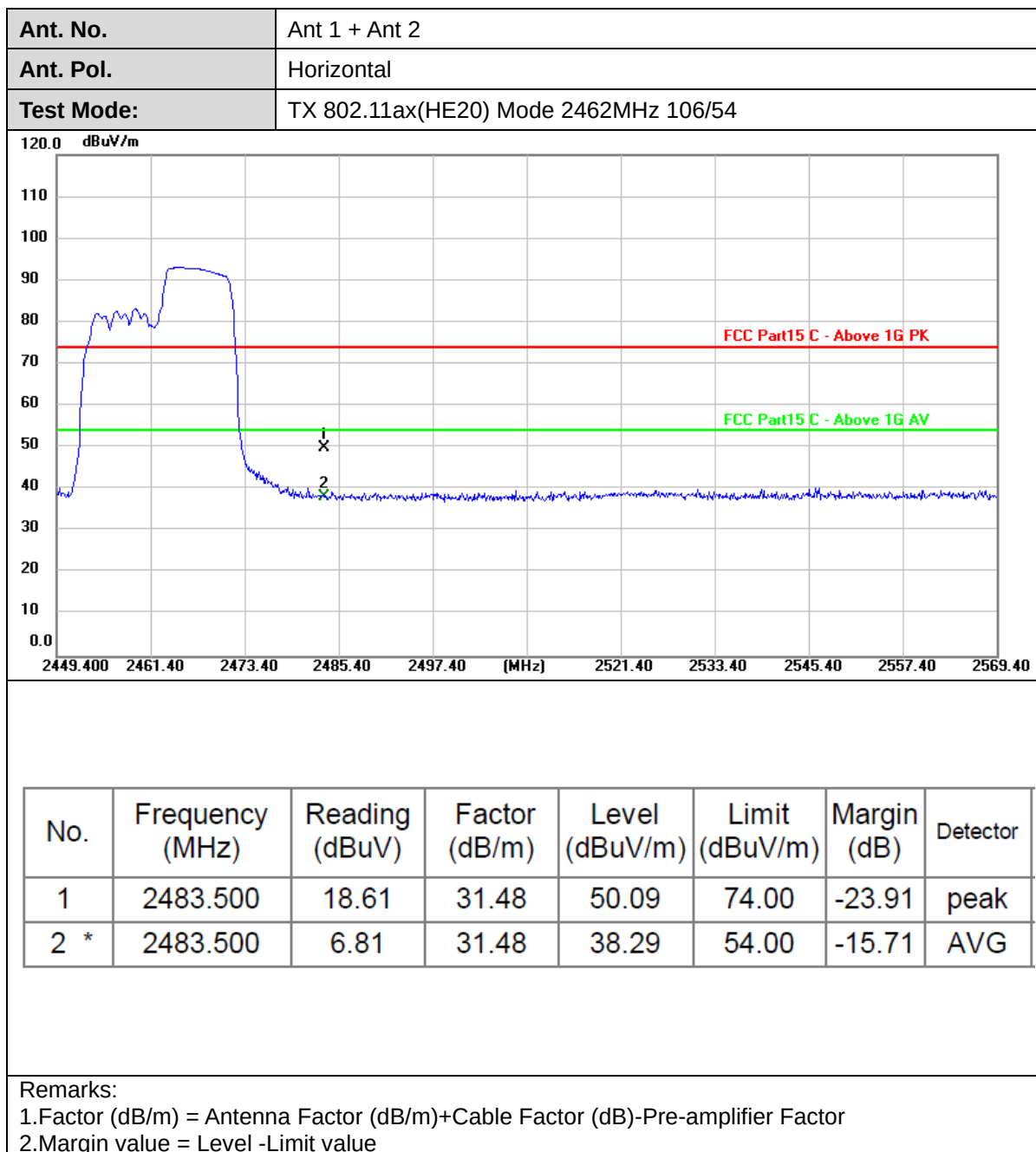


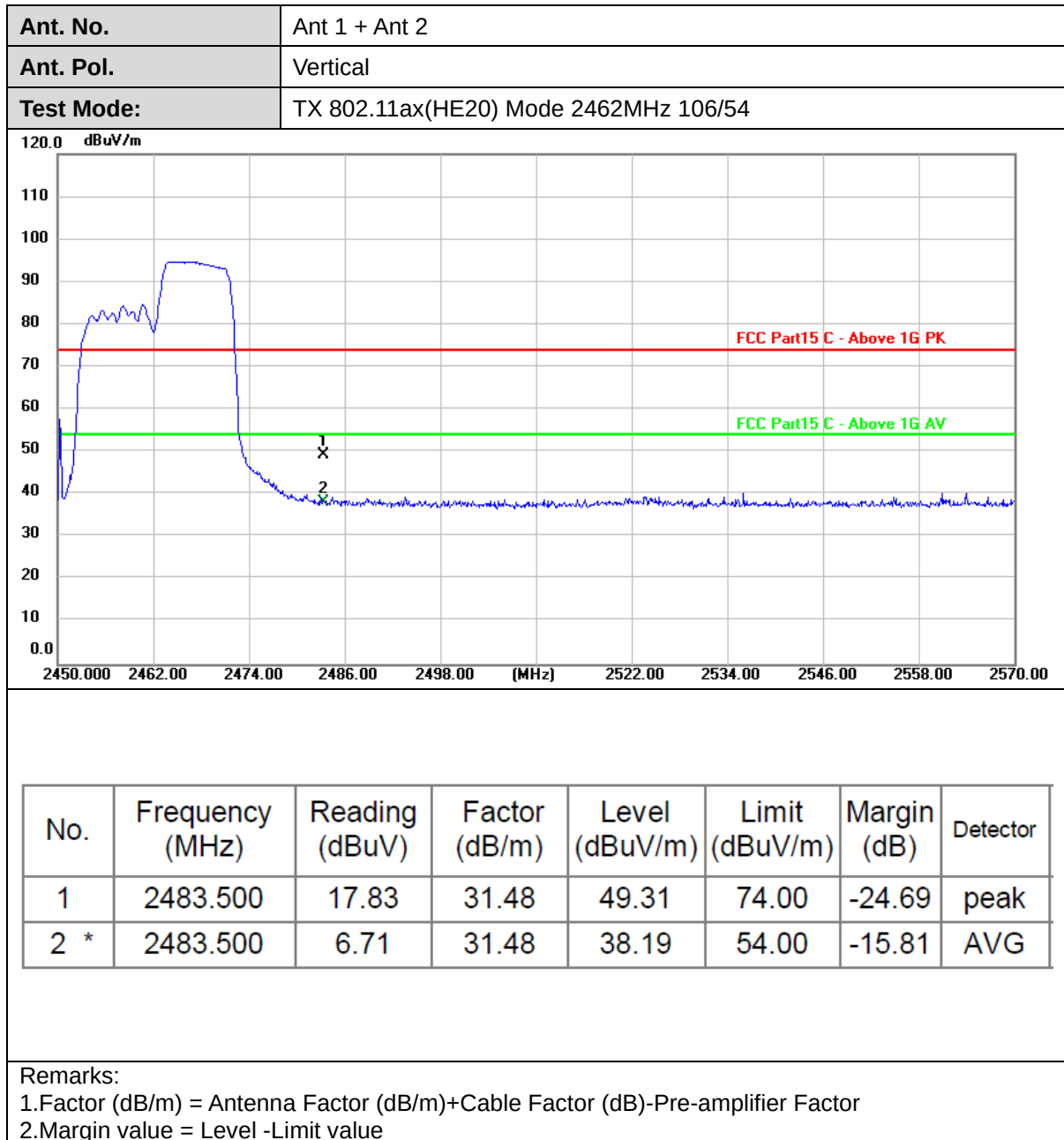


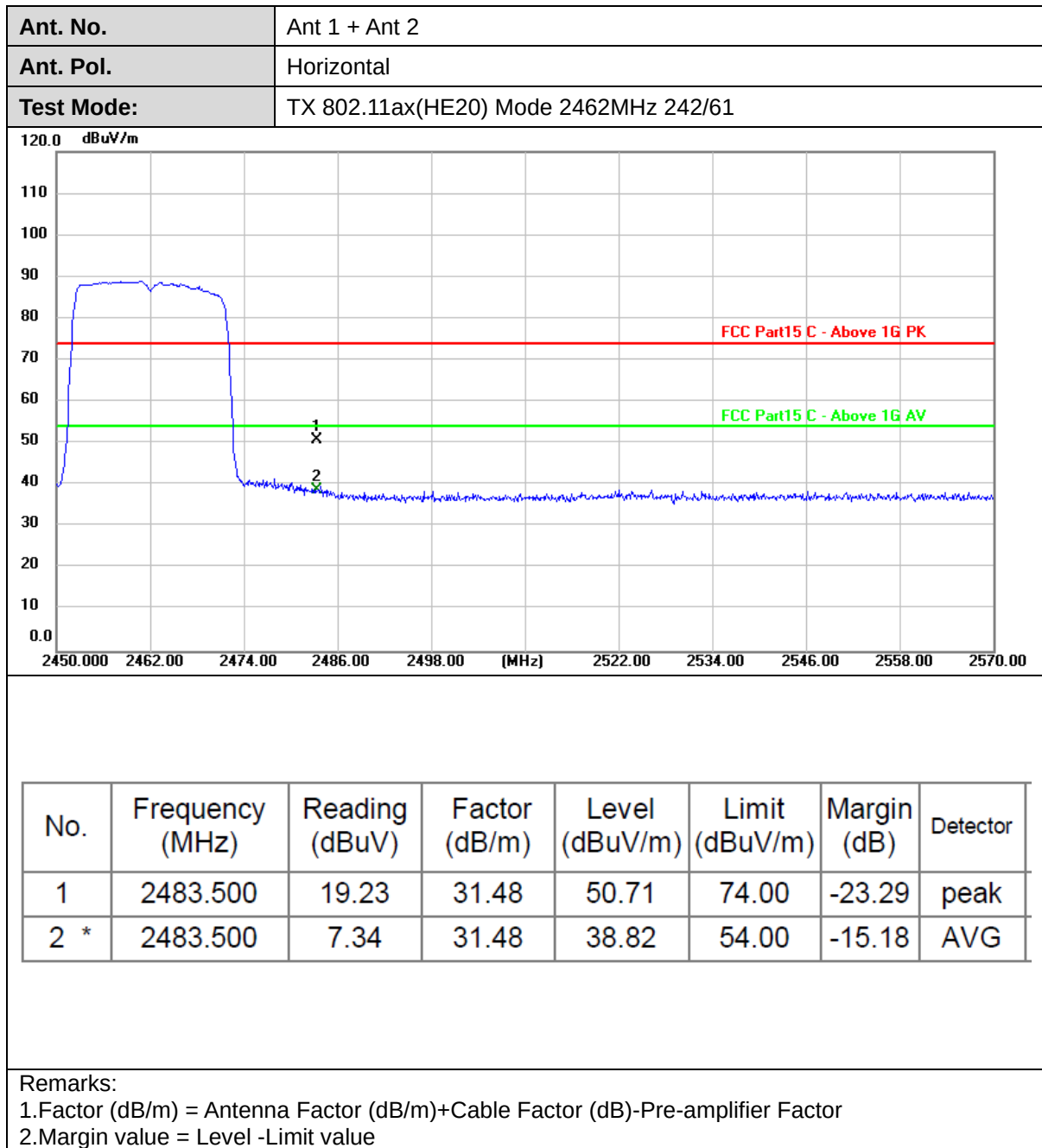


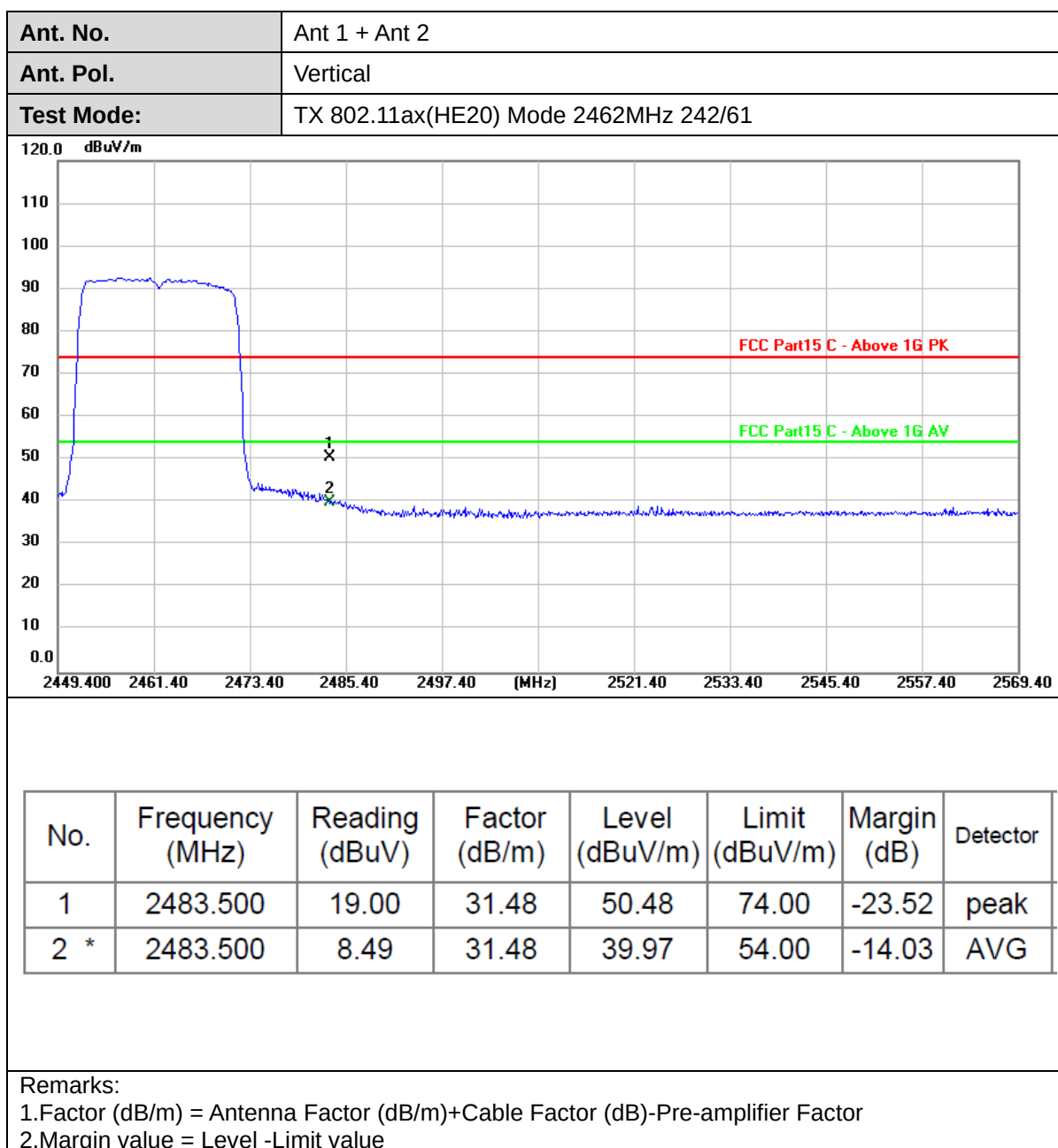


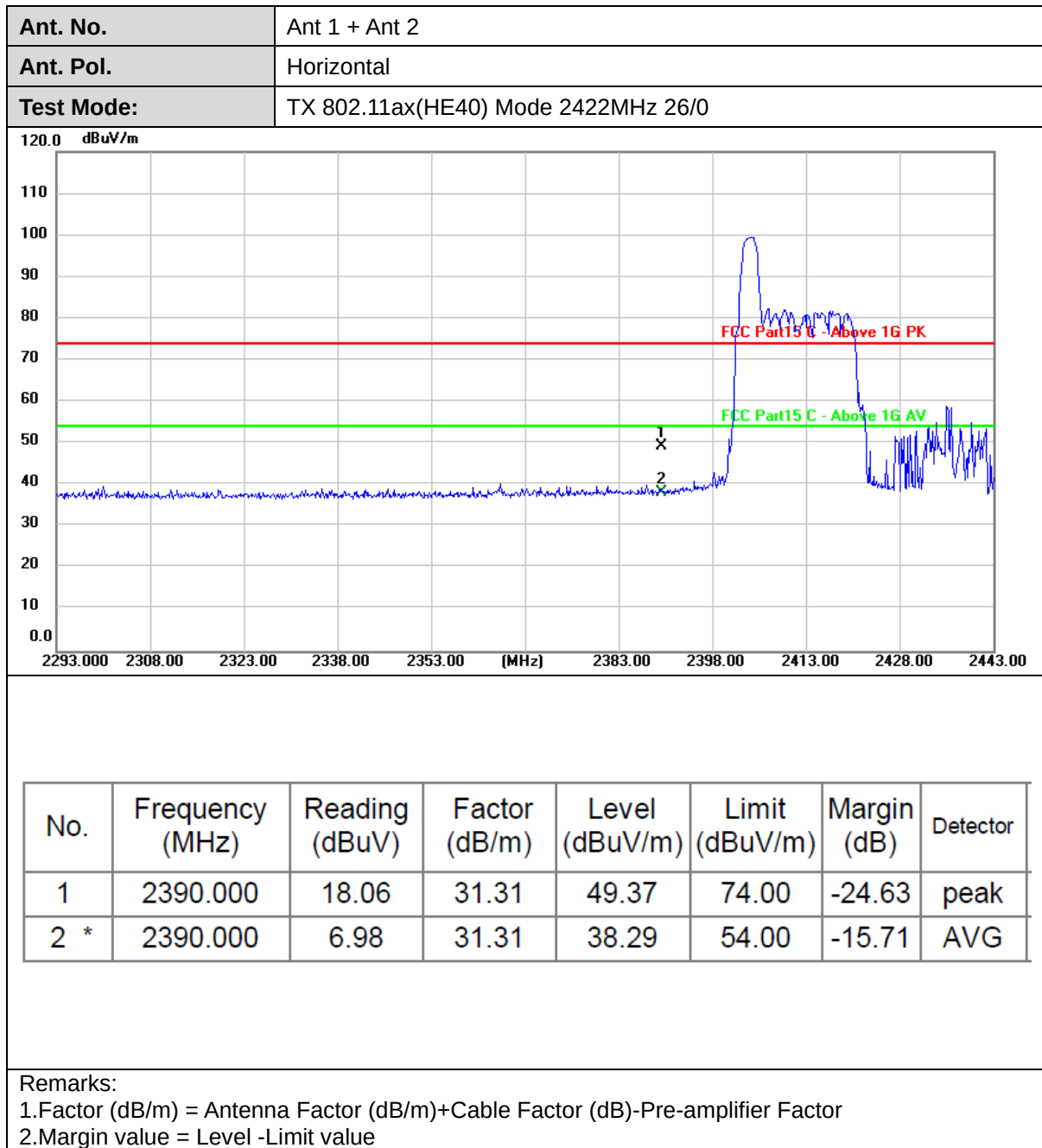


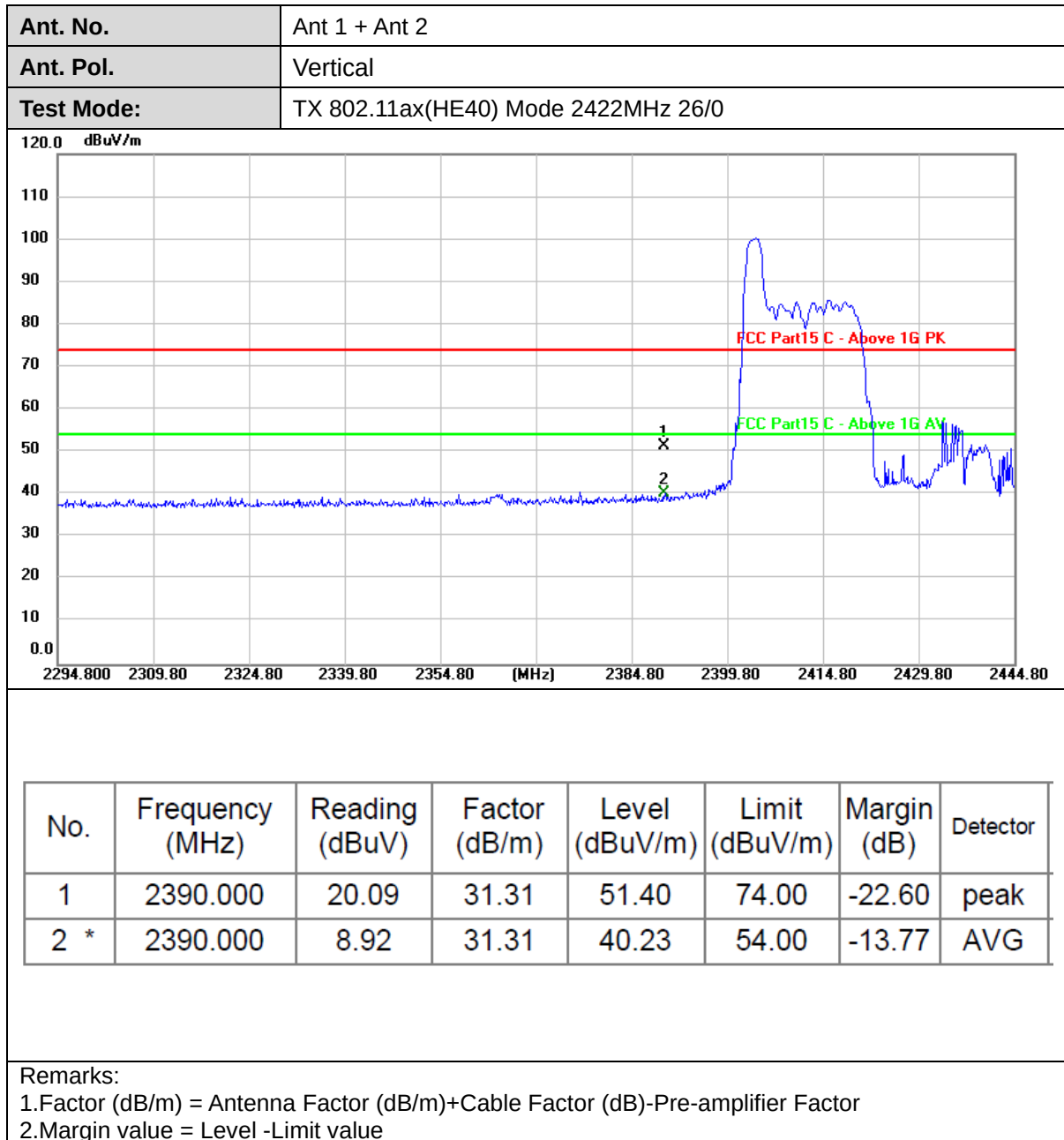


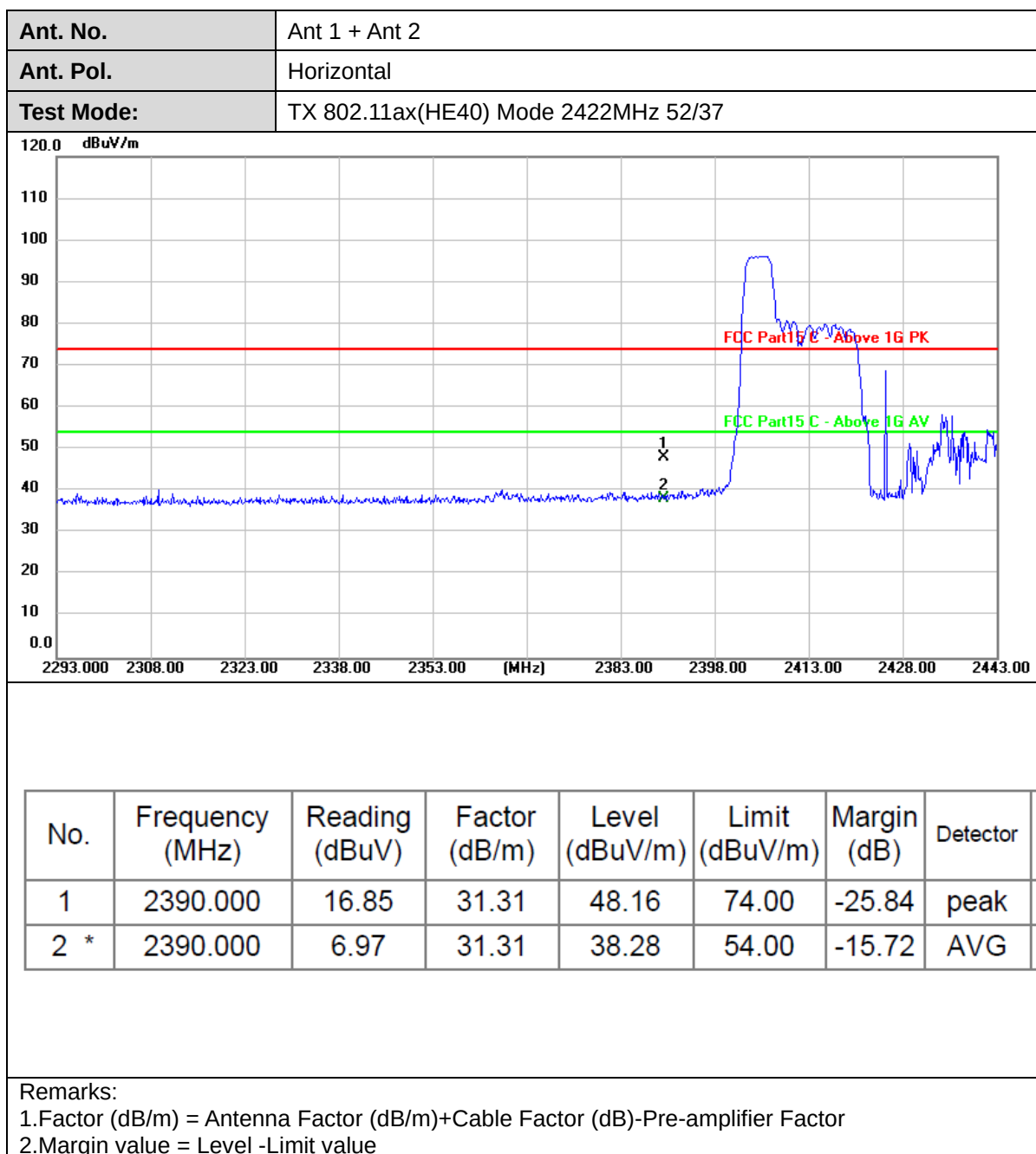


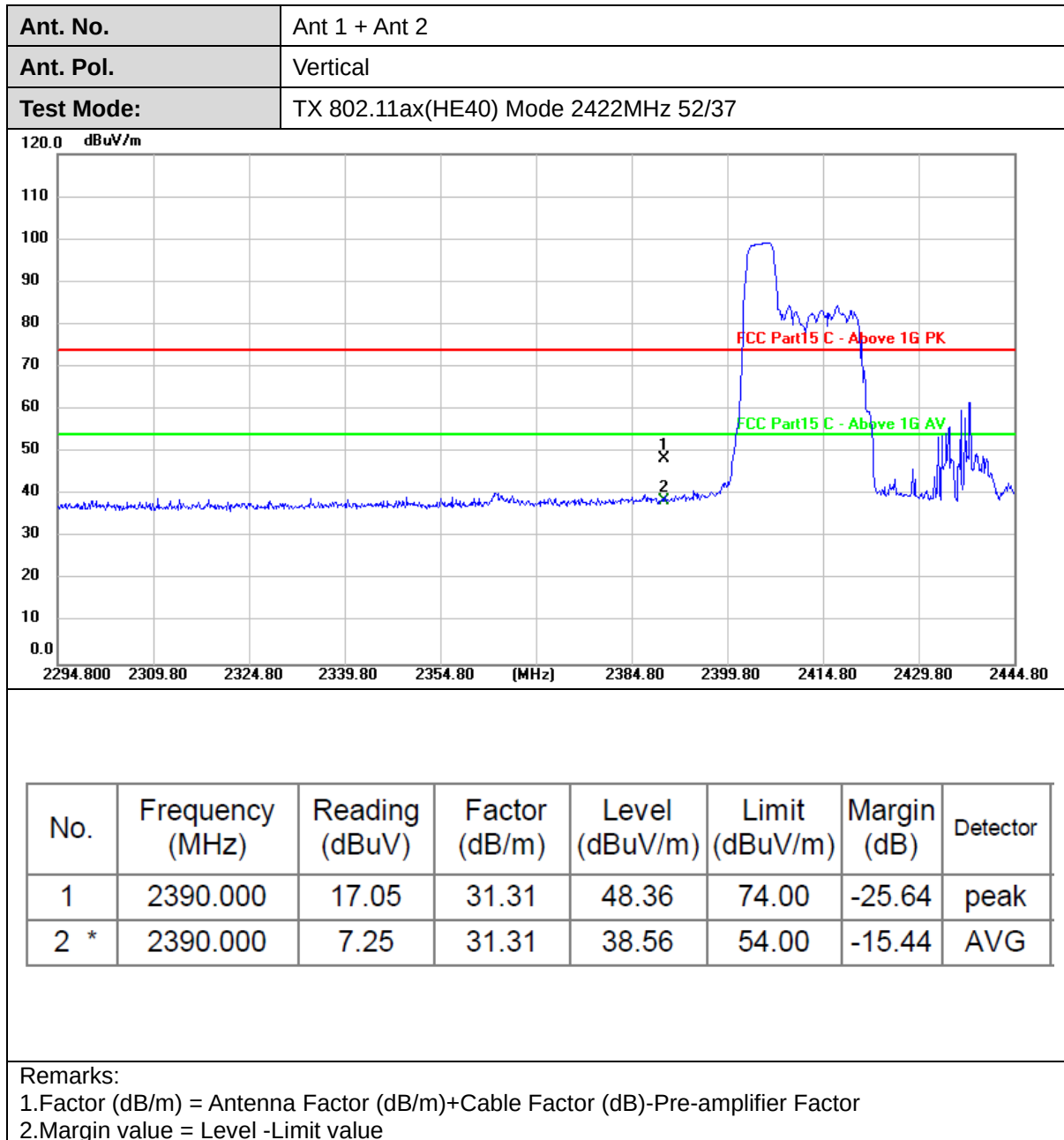


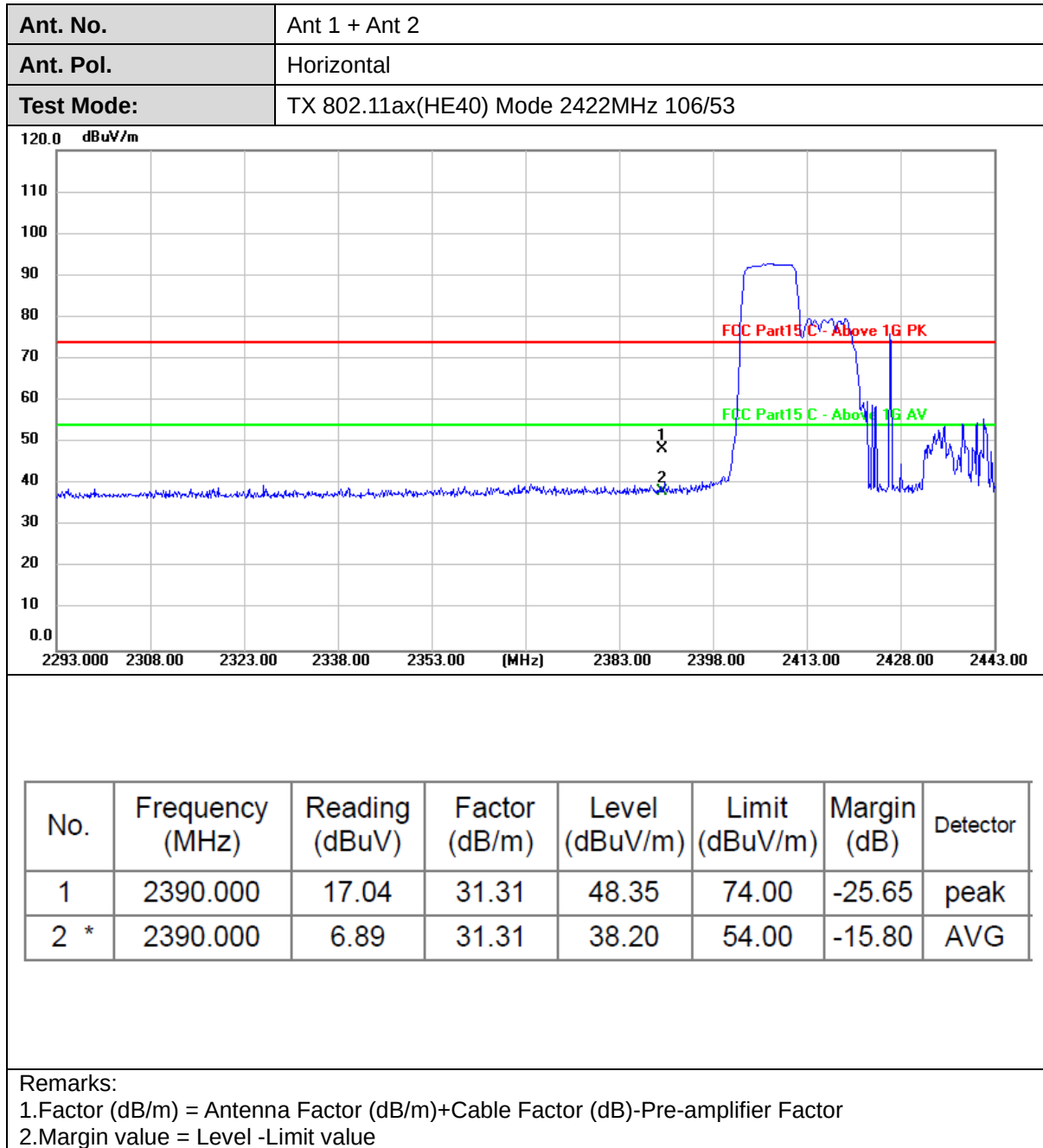


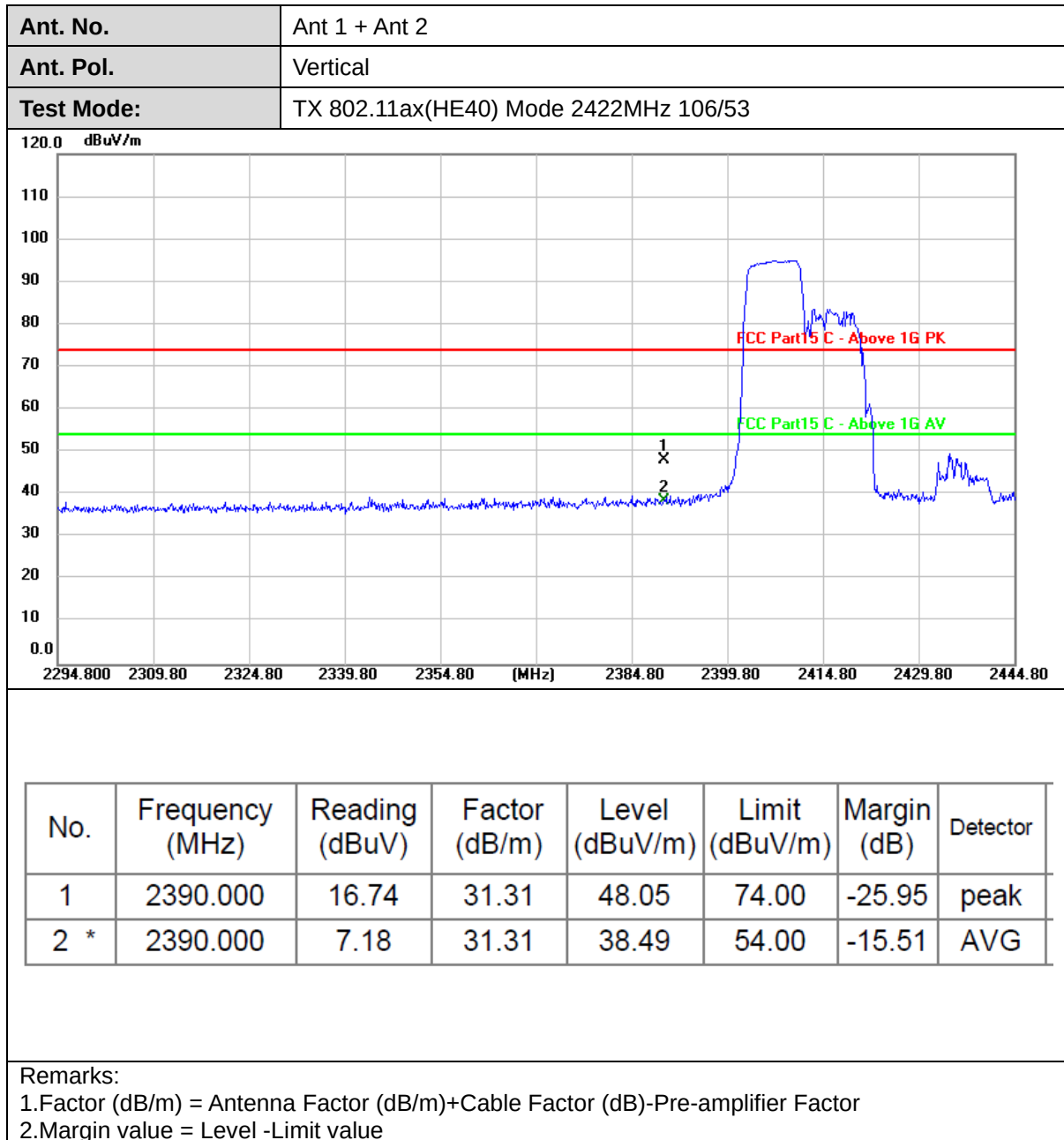


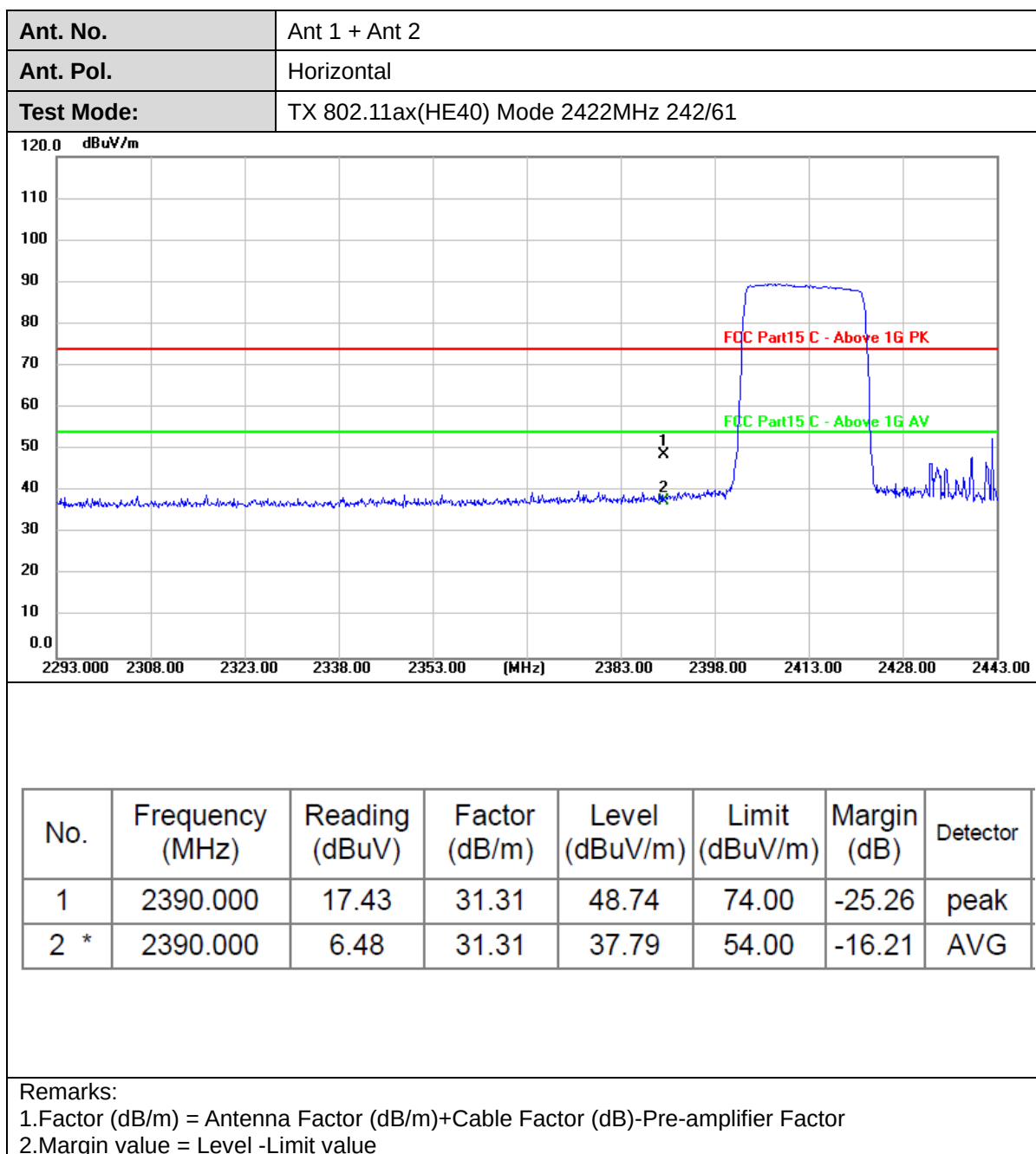


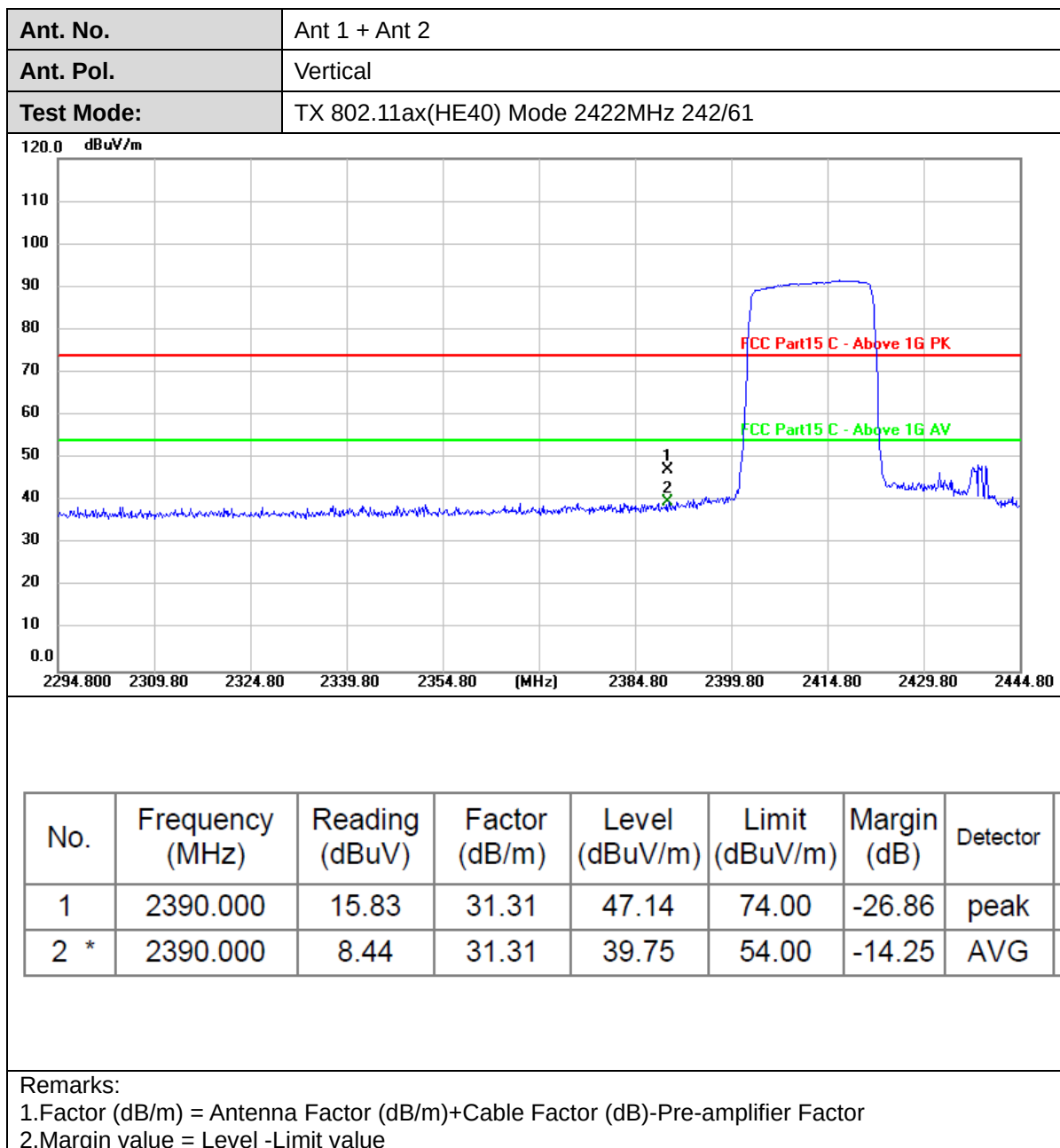


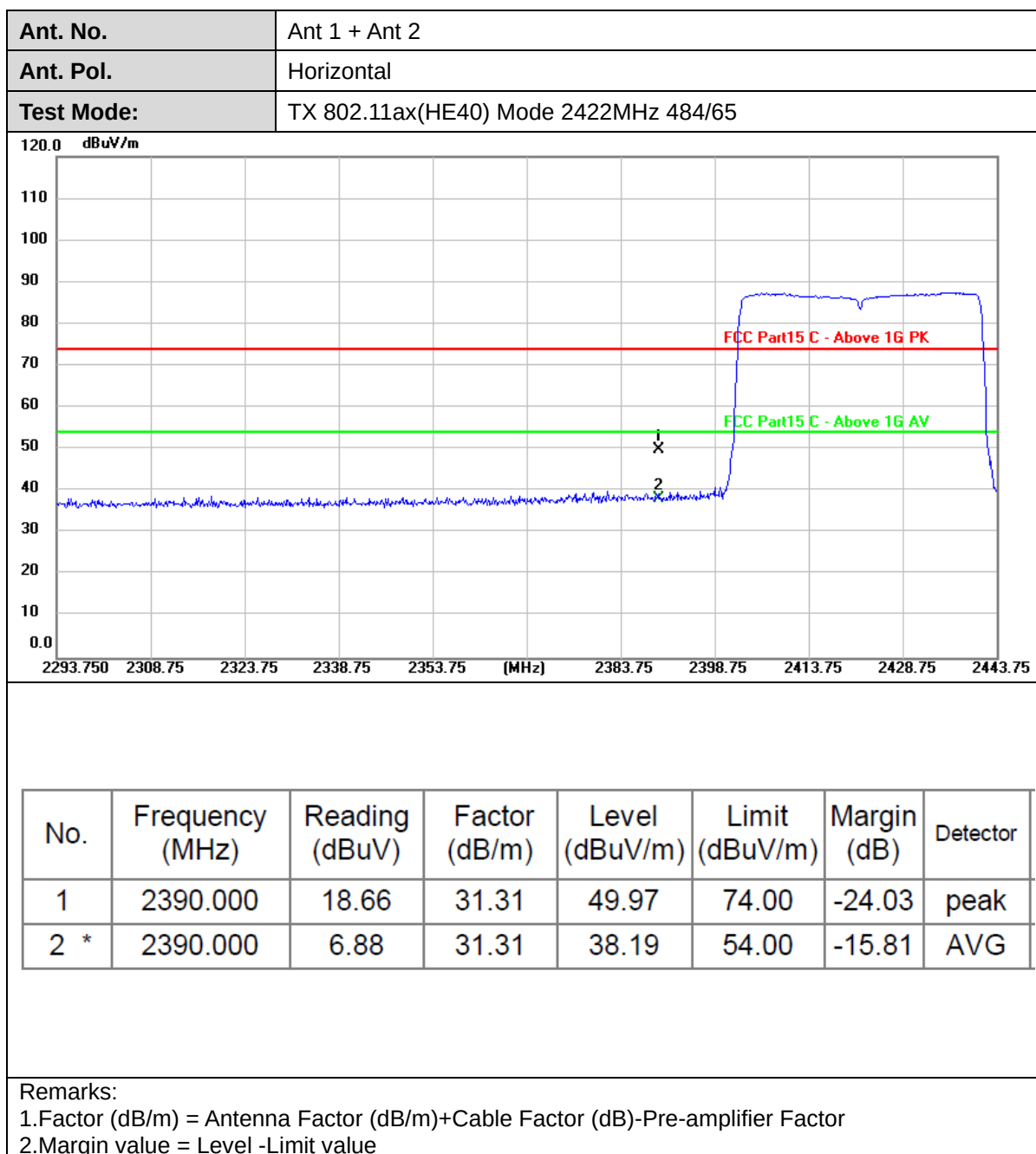


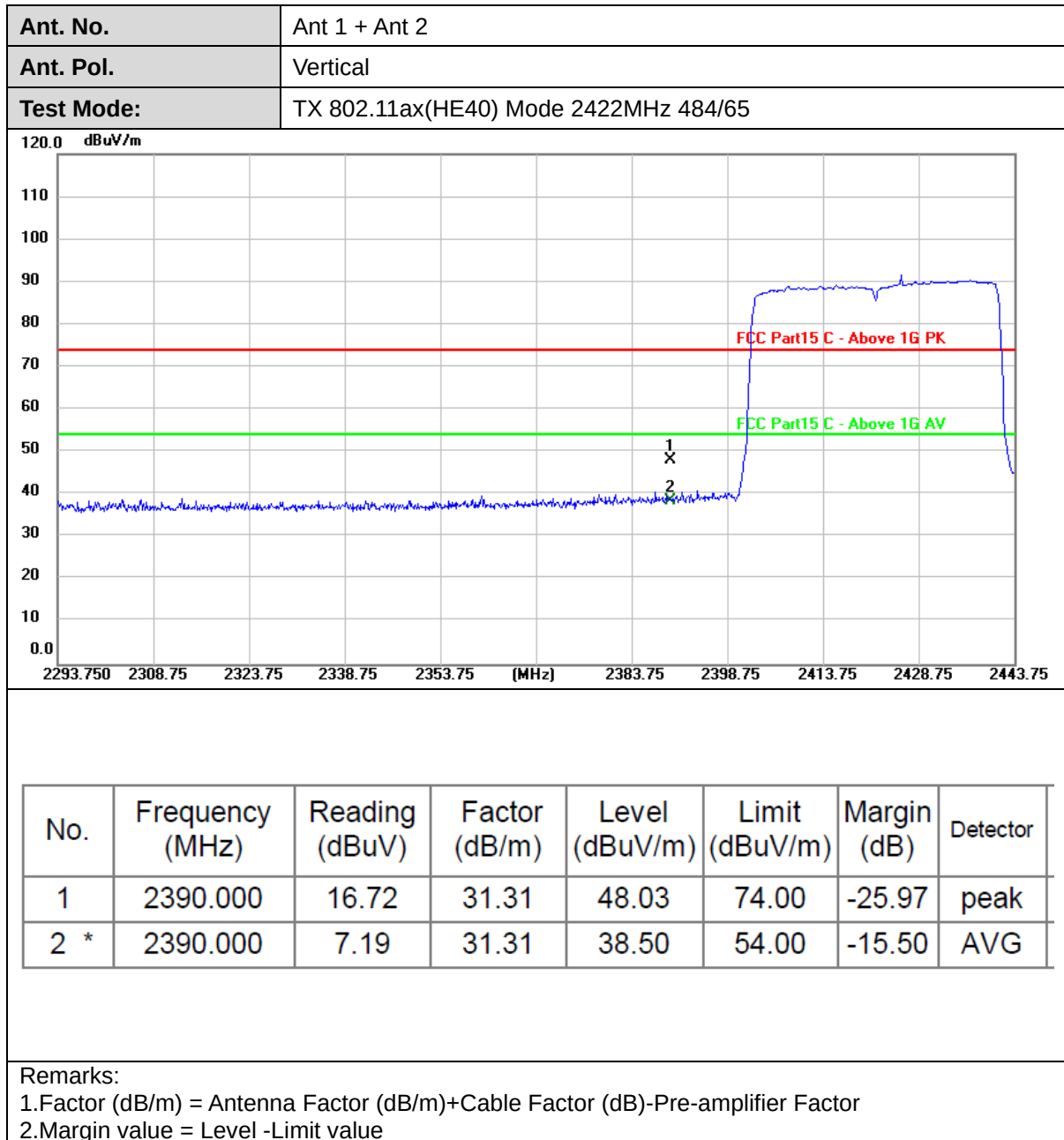


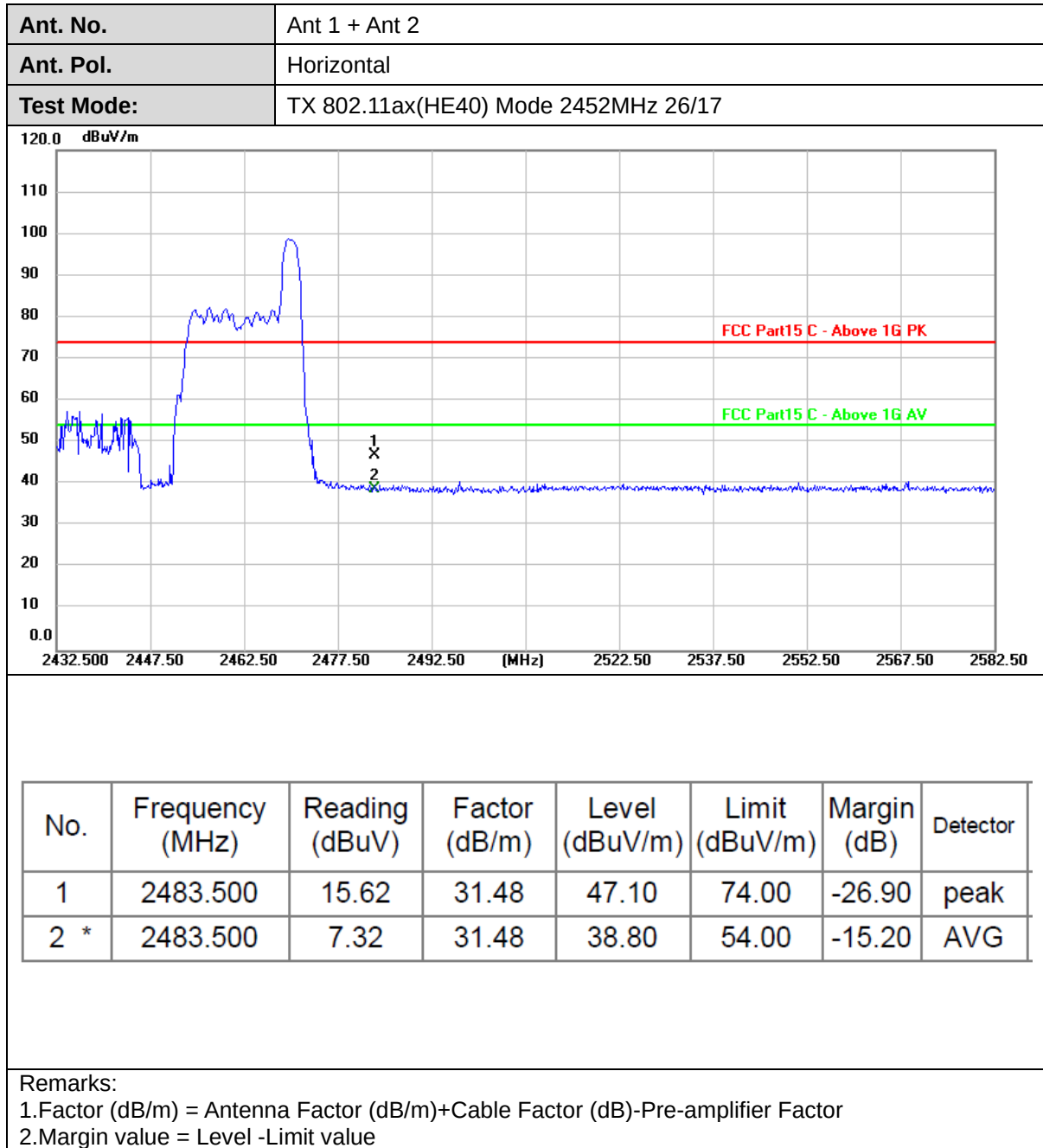


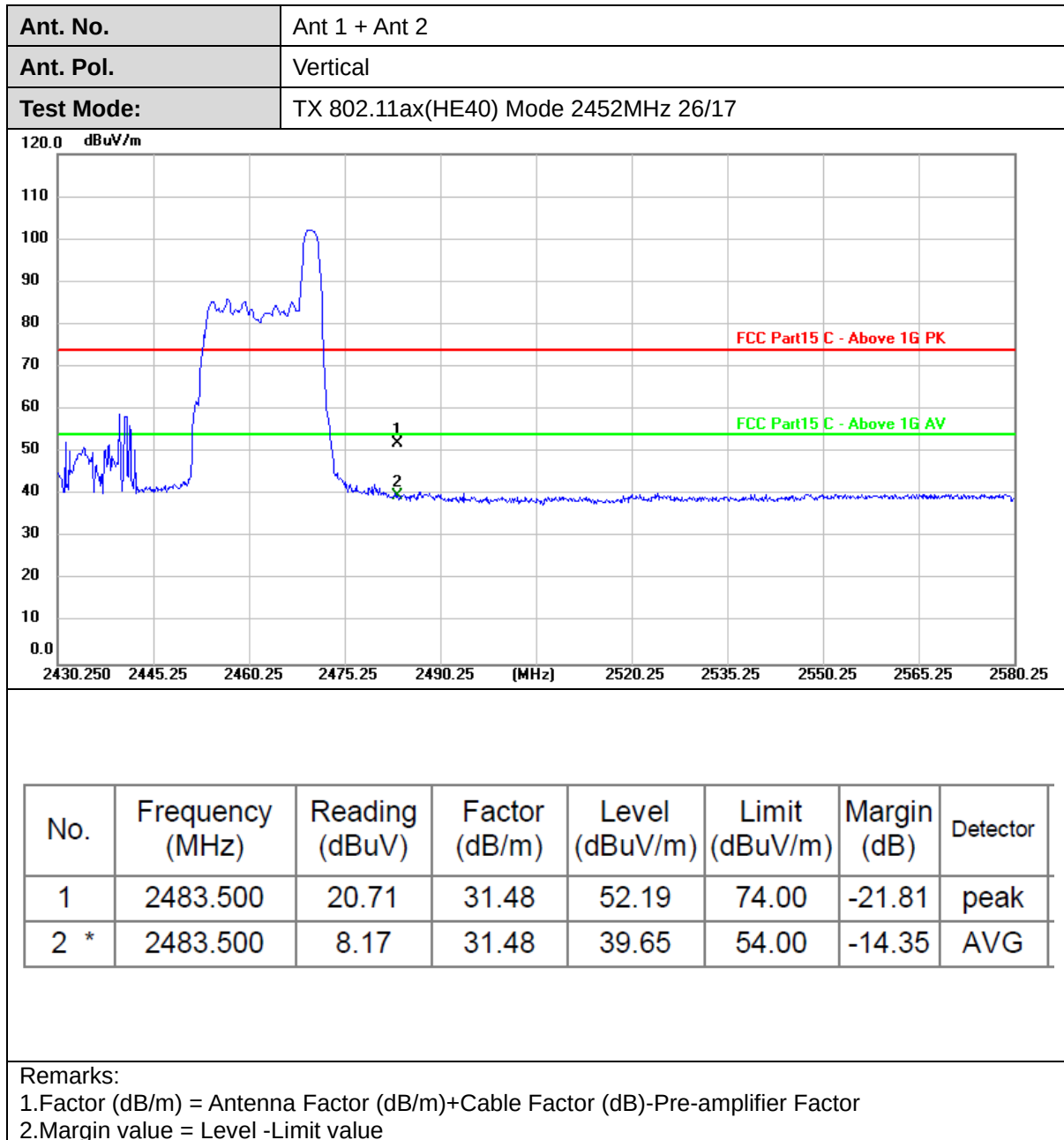


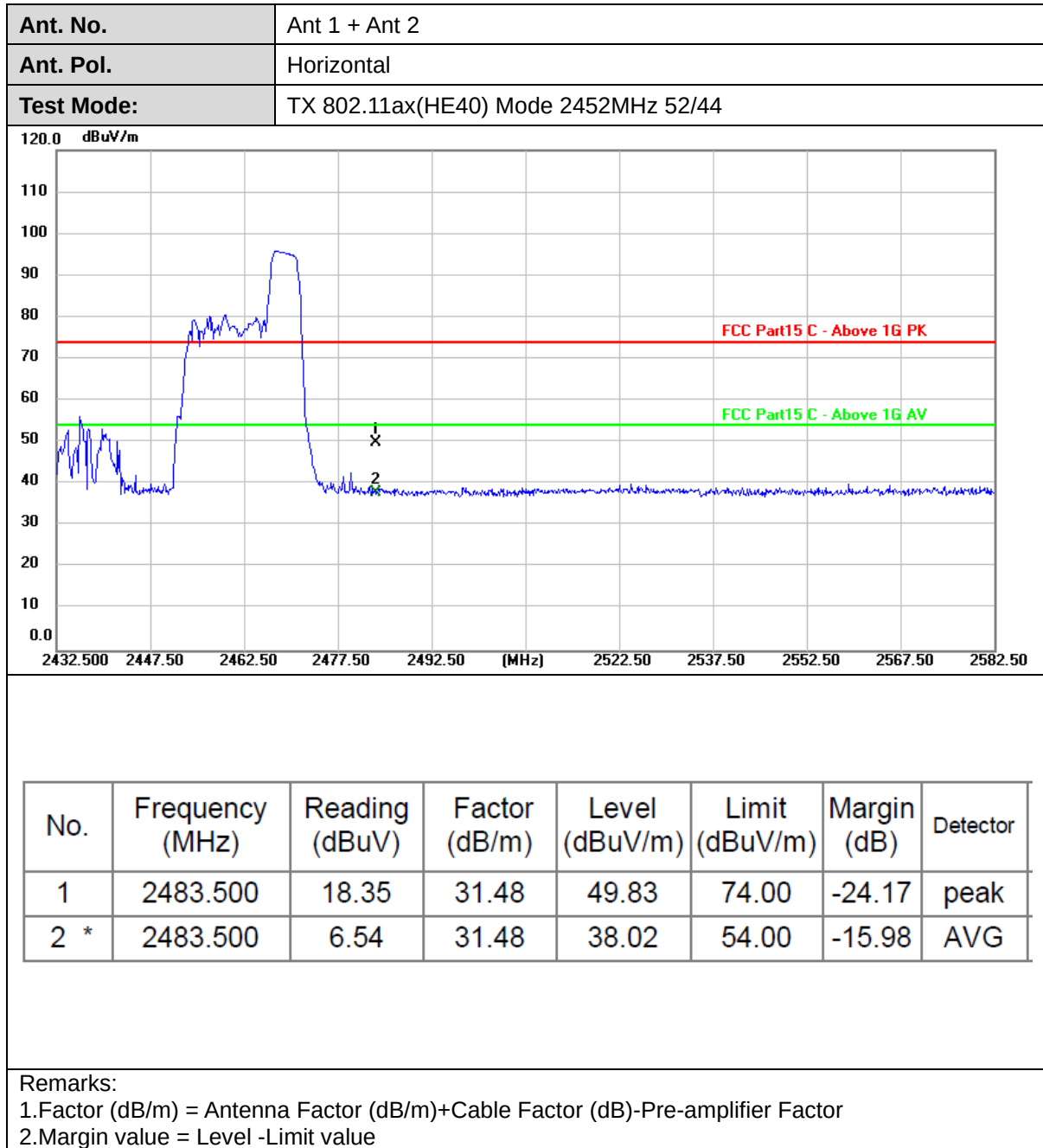


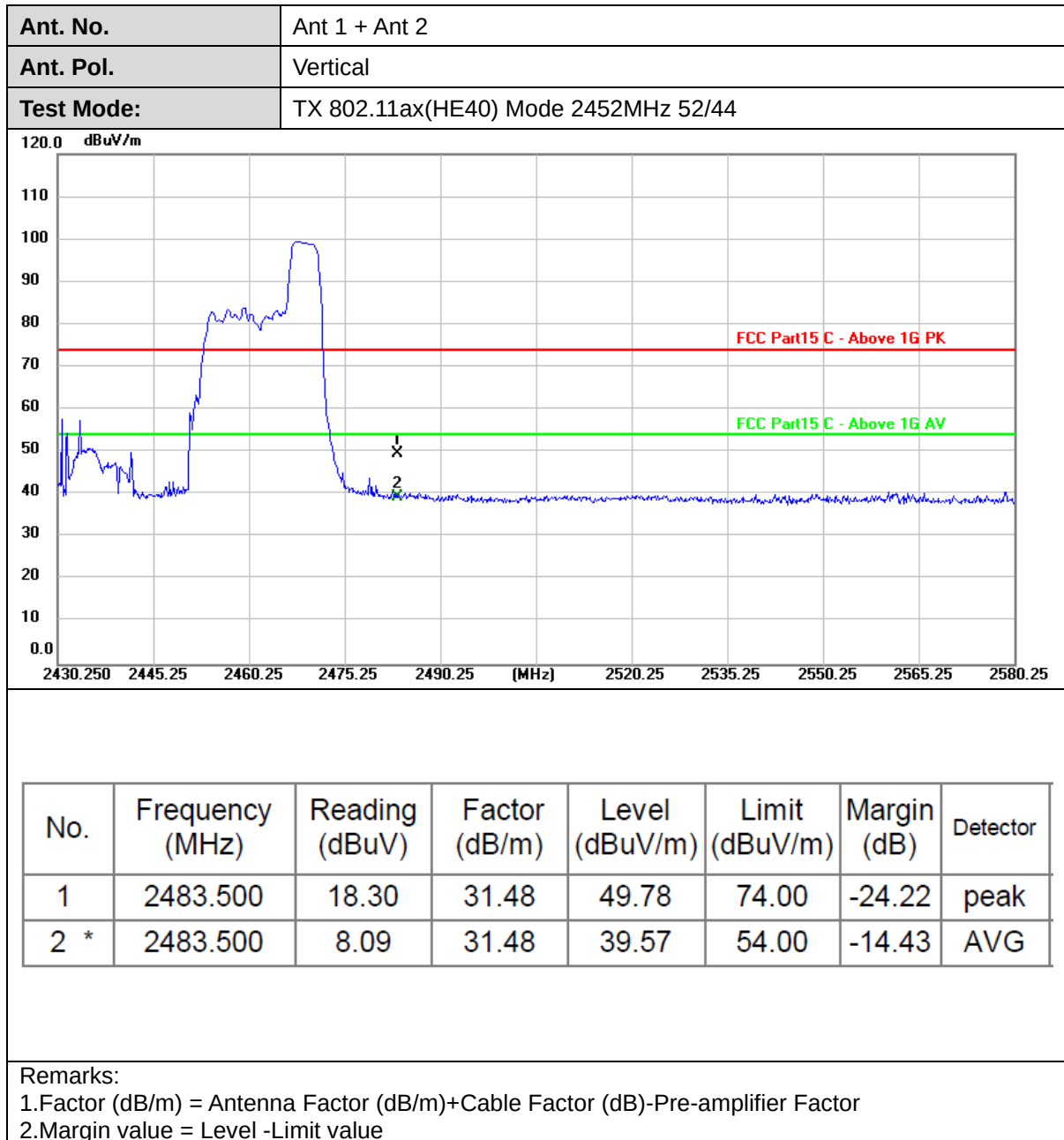


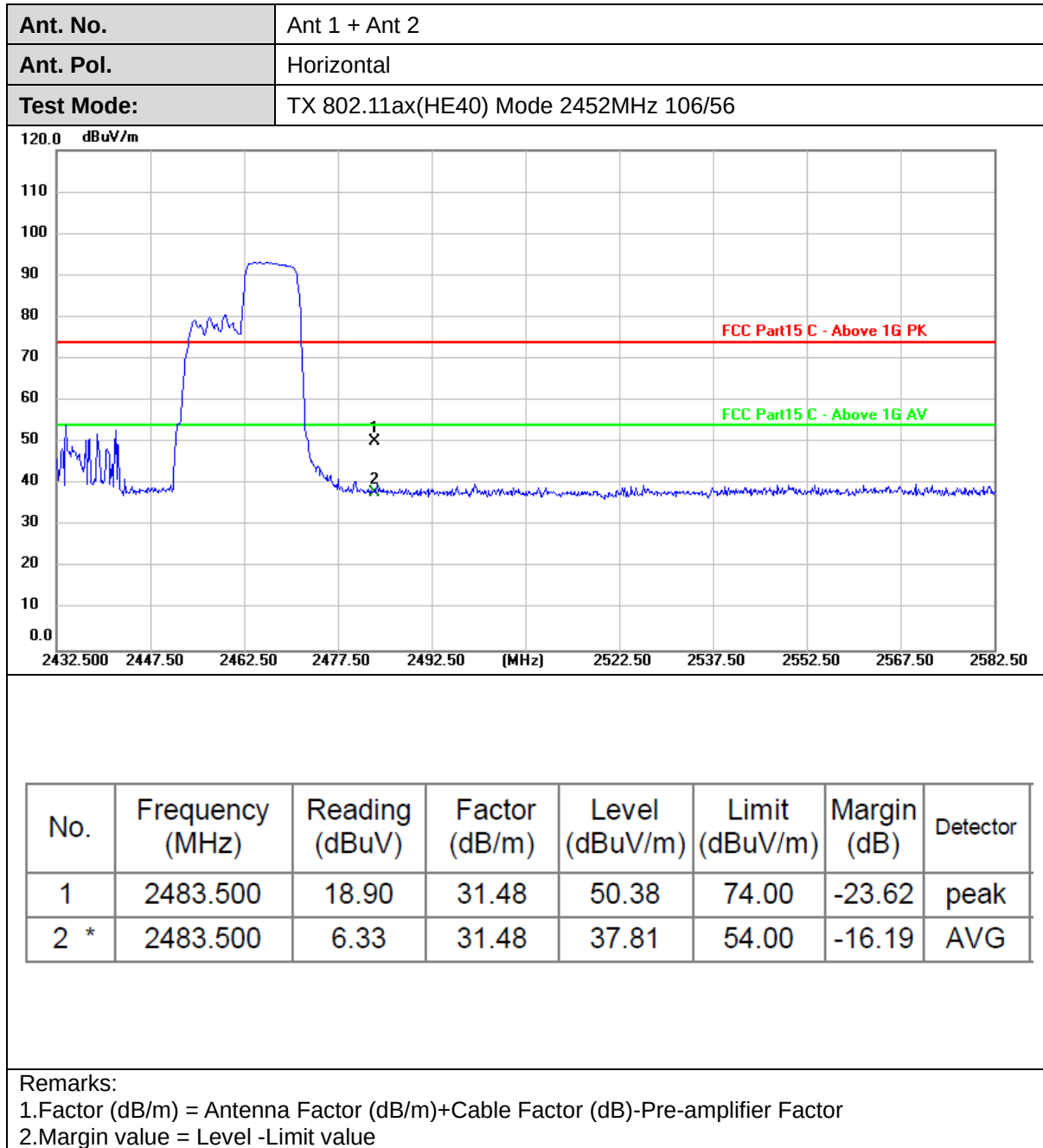


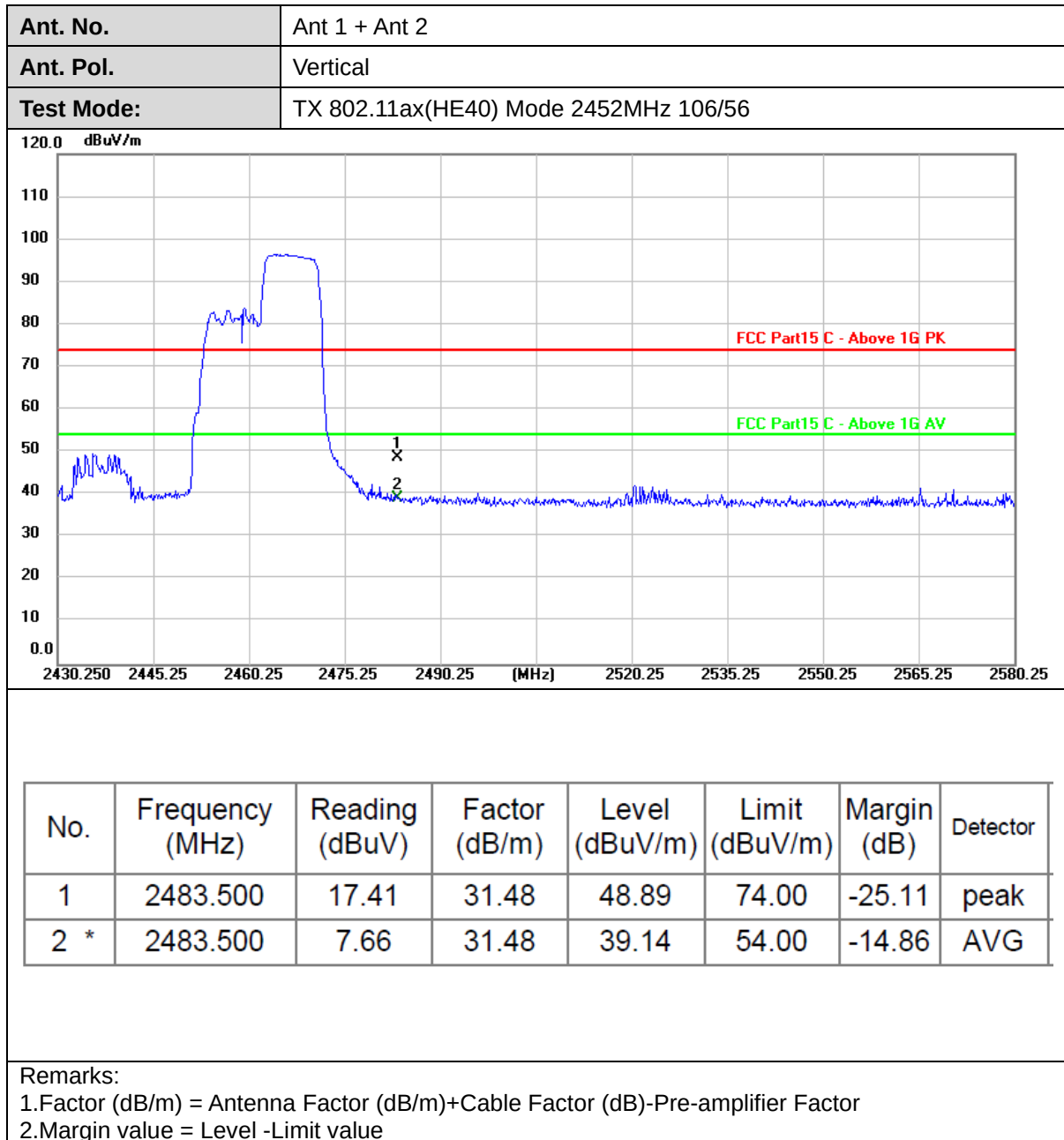


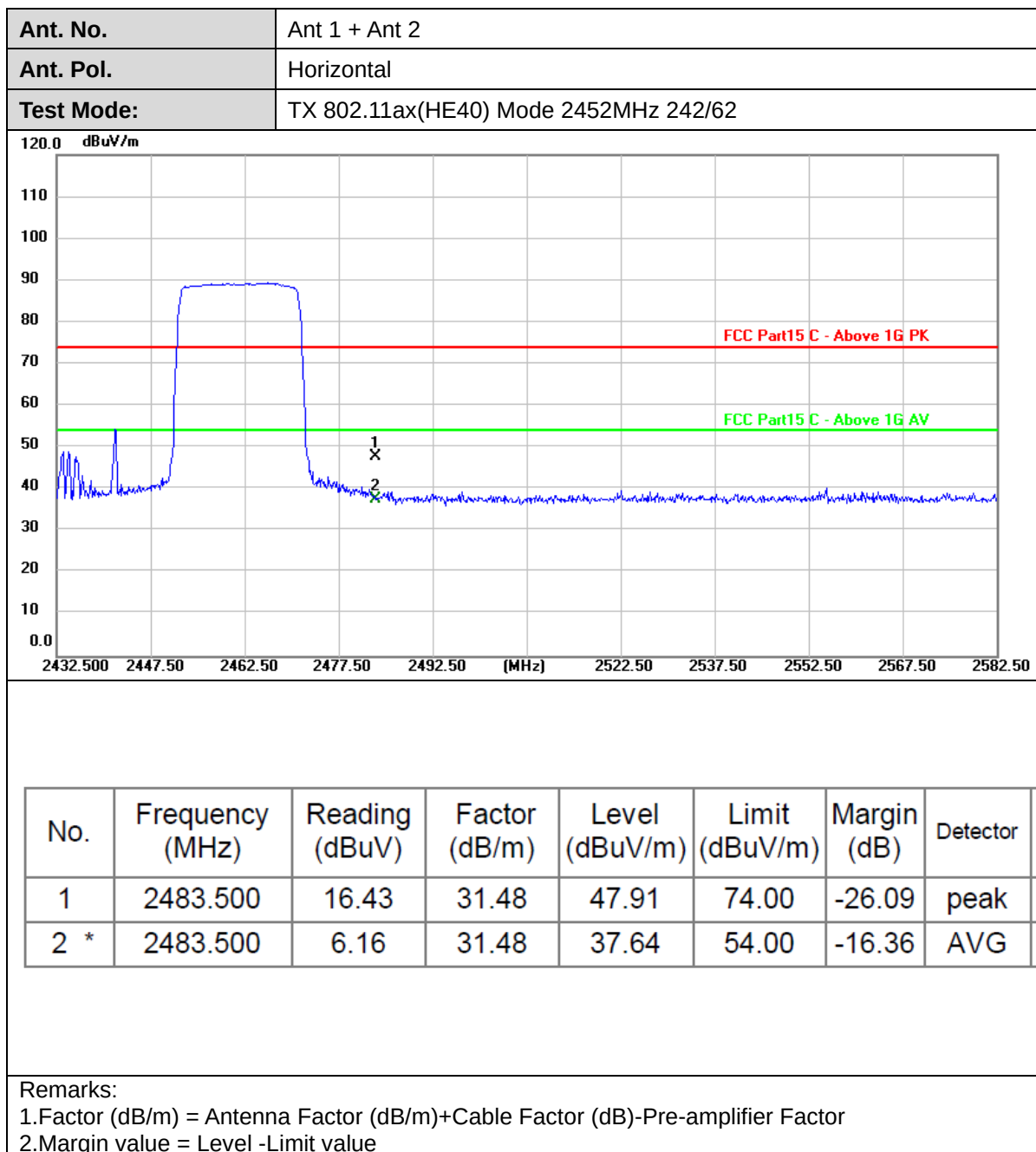


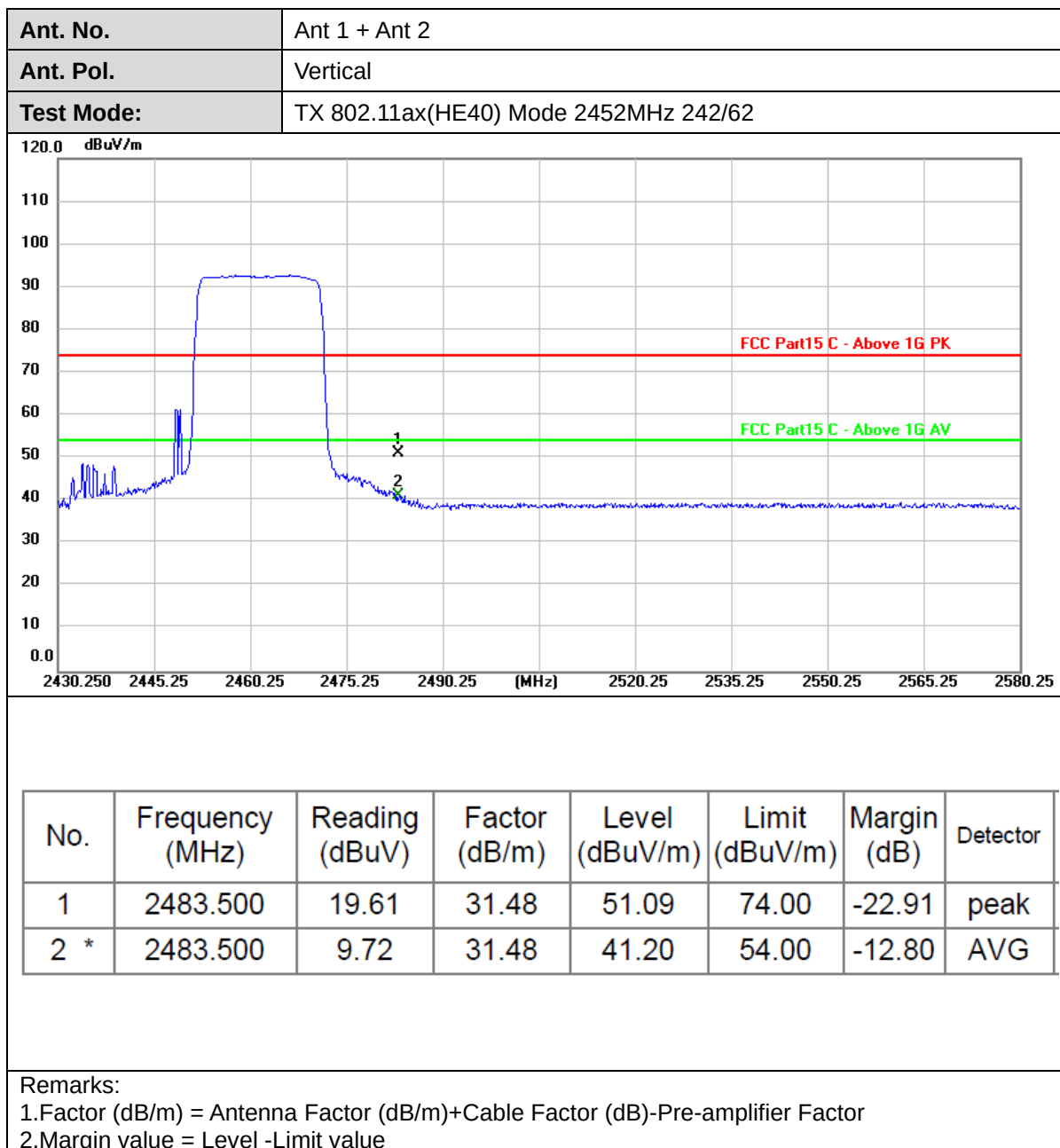


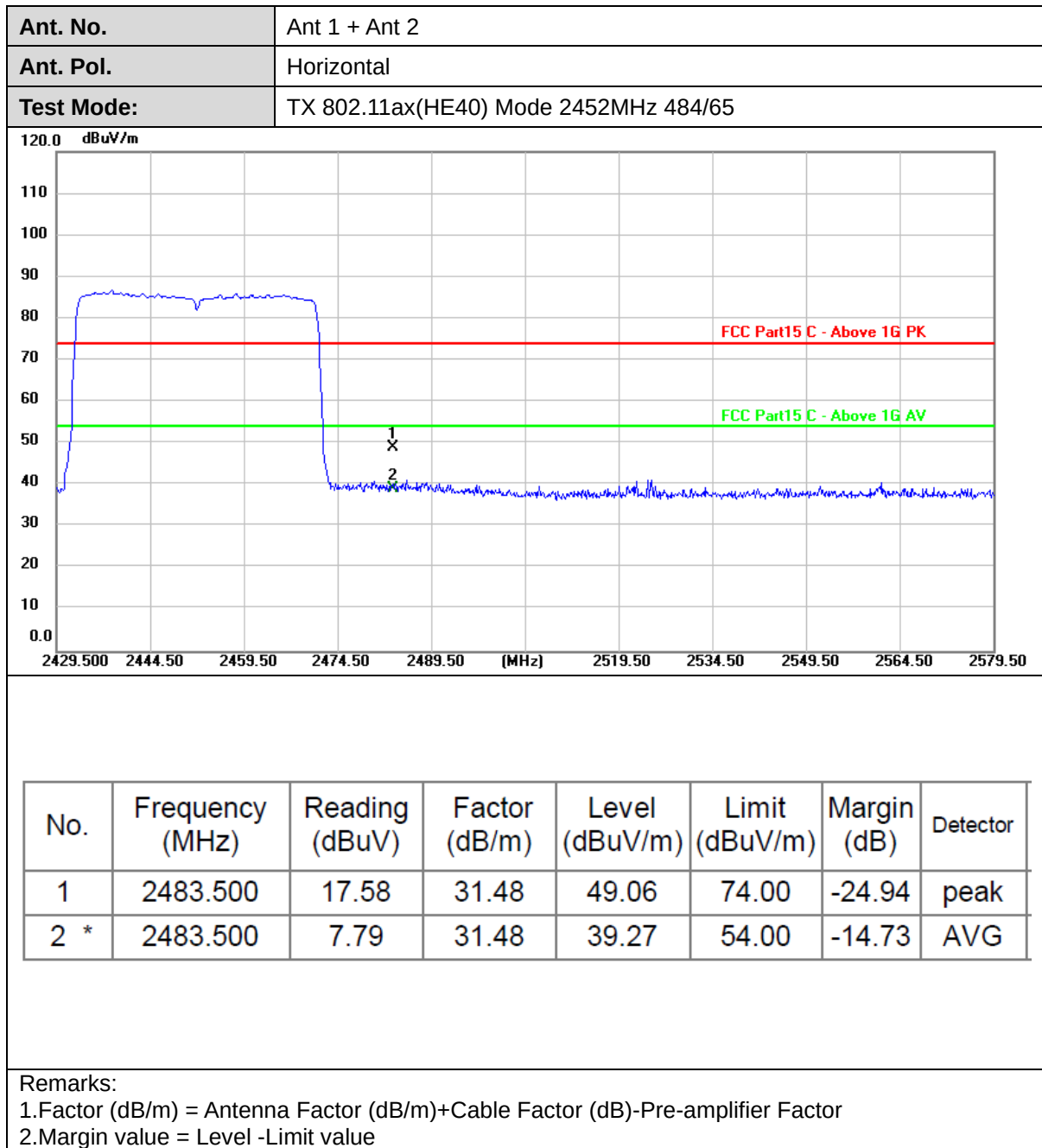


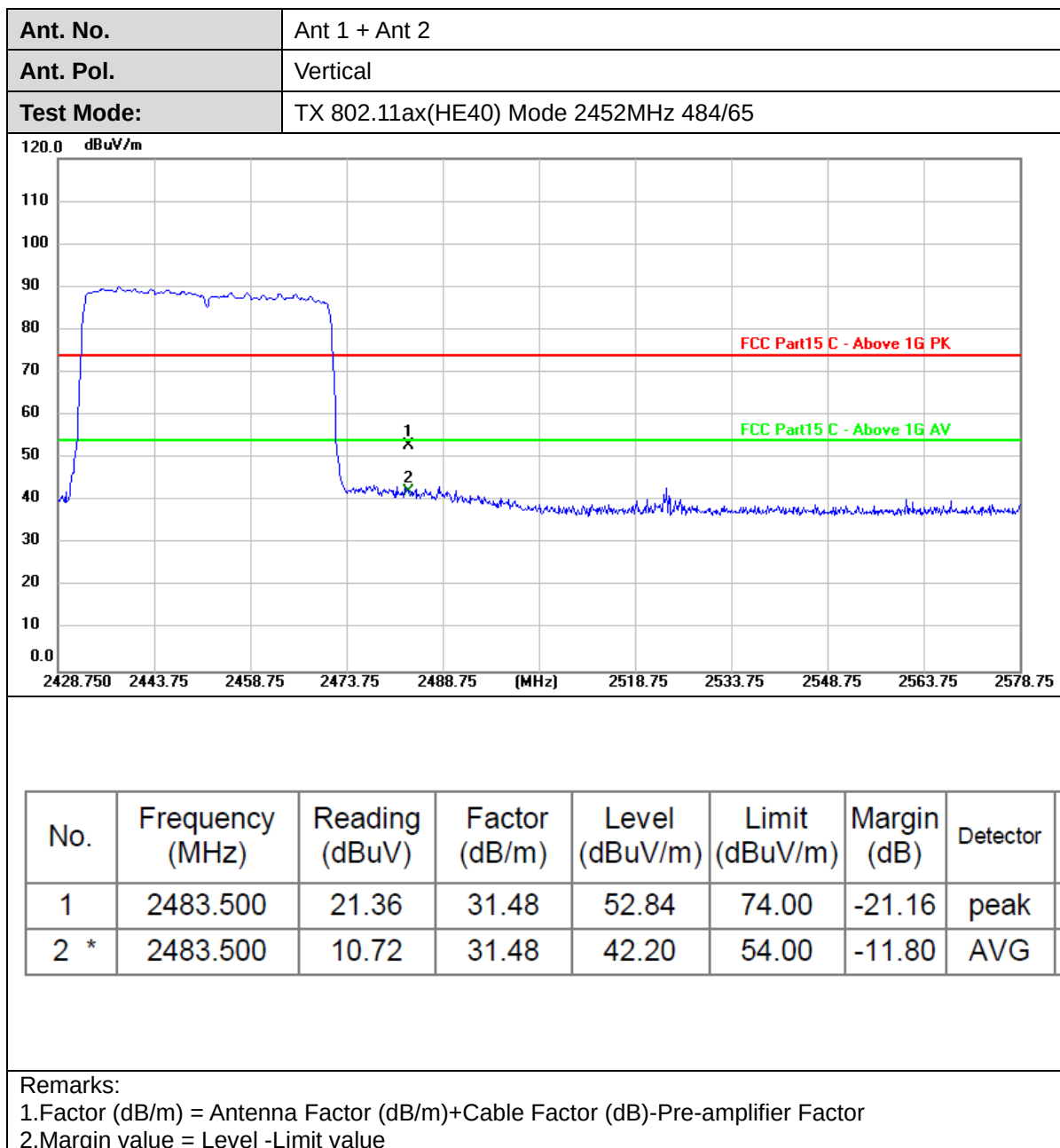














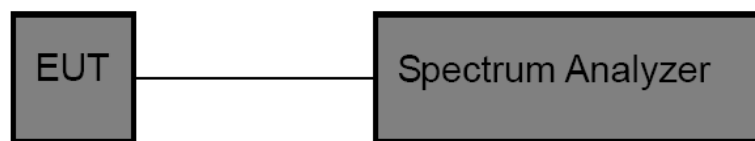
3.4. Band Edge and Spurious Emissions (Conducted)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Test Configuration



Test Procedure

1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
RBW = 100 kHz, VBW $\geq$ RBW, scan up through 10th harmonic.
Sweep = auto, Detector function = peak, Trace = max hold.
4. Measure and record the results in the test report.

Test Mode

Please refer to the clause 2.4.

**Test Result****(1) Band Edge Conducted Test & Conducted Spurious Emissions Test**

Mode	Channel	RU & Index	Ant.	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Result
IEEE 802.11b	1	N/A	0	2400.00	-43.095	-30.91	PASS
				2398.01	-35.799	-30.91	PASS
				23492.4	-43.140	-30.91	PASS
	1		2400.00	-48.640	-30.87	PASS	
			2396.97	-34.958	-30.87	PASS	
			23848.2	-43.261	-30.87	PASS	
	6		0	24978.2	-42.516	-30.74	PASS
			1	24899.5	-42.234	-30.93	PASS
			11	0	2483.50	-47.921	-30.47
	1766.08			-41.608	-30.47	PASS	
	1			2483.50	-49.788	-30.63	PASS
	24811.5		-43.044	-30.63	PASS		
IEEE 802.11g	1	0	2400.00	-41.358	-32.6	PASS	
			2397.62	-37.866	-32.6	PASS	
			24996.9	-43.036	-32.6	PASS	
	1	2400.00	-33.927	-32.53	PASS		
		2398.27	-33.313	-32.53	PASS		
		24964.4	-43.330	-32.53	PASS		
	6	0	23551.7	-43.564	-32.64	PASS	
		1	23631.0	-42.977	-32.63	PASS	
		11	0	2483.50	-42.638	-32.24	PASS
	23684.7		-43.278	-32.24	PASS		
	1		2483.50	-44.384	-32.45	PASS	
	24754.7	-43.698	-32.45	PASS			
IEEE 802.11n_20	1	0	2400.00	-48.780	-38.73	PASS	
			2398.92	-47.797	-38.73	PASS	
			21847.5	-43.430	-38.73	PASS	
	1	2400.00	-49.130	-38.83	PASS		
		2386.05	-48.591	-38.83	PASS		
		21246.3	-43.271	-38.83	PASS		
	6	0	23633.5	-43.314	-38.06	PASS	
		1	24918.8	-42.935	-39.65	PASS	
		11	0	2483.50	-46.688	-38.2	PASS
	23767.1		-43.628	-38.2	PASS		
	1		2483.50	-50.029	-38.59	PASS	
	24773.4	-43.276	-38.59	PASS			
IEEE 802.11n_40	3	0	2400.00	-51.529	-41.1	PASS	
			2394.50	-48.559	-41.1	PASS	
			24780.3	-42.913	-41.1	PASS	
	1	2400.00	-50.352	-41.64	PASS		
		2394.50	-45.688	-41.64	PASS		
		23410.0	-42.432	-41.64	PASS		
	6	0	23476.2	-43.052	-41.36	PASS	
		1	24860.8	-42.645	-41.19	PASS	
		9	0	2483.50	-49.136	-42.23	PASS
	824.69		-44.227	-42.23	PASS		
	1		2483.50	-52.366	-42.59	PASS	
	23742.1	-47.086	-42.59	PASS			
IEEE 802.11ax_20	1	242RU61	0	2400.00	-46.857	-39.72	PASS
				2396.97	-46.197	-39.72	PASS
				24925.7	-42.170	-39.72	PASS
		1	2400.00	-48.243	-39.65	PASS	
			2398.27	-47.683	-39.65	PASS	
			21909.3	-42.774	-39.65	PASS	
		26RU0	0	2400.00	-46.495	-22.49	PASS
				24819.6	-43.023	-22.49	PASS
				2400.00	-47.868	-23.31	PASS
23506.8	-42.735	-23.31	PASS				

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IEEE 802.11ax_40	6	52RU37	0	2400.00	-46.498	-26.66	PASS
				24913.9	-42.071	-26.66	PASS
			1	2400.00	-48.278	-26.93	PASS
				24305.8	-43.172	-26.93	PASS
		106RU53	0	2400.00	-48.467	-30.45	PASS
				24310.2	-42.994	-30.45	PASS
			1	2400.00	-49.376	-30.36	PASS
				24995.0	-43.340	-30.36	PASS
		242RU61	0	24808.4	-43.058	-39.63	PASS
			1	23770.8	-42.491	-39.63	PASS
	11	242RU61	0	2483.50	-45.512	-38.89	PASS
				22842.5	-42.703	-38.89	PASS
			1	2483.50	-49.672	-39.88	PASS
				24807.1	-43.462	-39.88	PASS
		26RU8	0	2483.50	-51.791	-23.59	PASS
				23528.0	-43.685	-23.59	PASS
			1	2483.50	-44.807	-23.42	PASS
				23547.3	-42.781	-23.42	PASS
		52RU40	0	2483.50	-52.565	-26.32	PASS
				24815.8	-42.151	-26.32	PASS
			1	2483.50	-50.948	-26.9	PASS
				23521.1	-43.242	-26.9	PASS
		106RU54	0	2483.50	-51.441	-29.28	PASS
				23283.9	-43.022	-29.28	PASS
			1	2483.50	-51.779	-29.82	PASS
				24710.3	-43.191	-29.82	PASS
IEEE 802.11ax_40	3	484RU65	0	2400.00	-50.533	-42.41	PASS
				2396.97	-47.894	-42.41	PASS
				23421.9	-43.384	-42.41	PASS
			1	2400.00	-50.758	-42.98	PASS
				2385.66	-48.091	-42.98	PASS
		26RU0	0	24758.4	-46.766	-42.98	PASS
				2400.00	-43.249	-23.32	PASS
				24845.8	-43.491	-23.32	PASS
			1	2400.00	-43.015	-23.26	PASS
				23669.1	-43.107	-23.26	PASS
		52RU37	0	2400.00	-45.586	-25.69	PASS
				24868.3	-42.974	-25.69	PASS
				2400.00	-47.389	-25.86	PASS
			1	2398.66	-46.672	-25.86	PASS
				23679.7	-42.472	-25.86	PASS
		106RU53	0	2400.00	-47.216	-29.13	PASS
				2398.92	-47.182	-29.13	PASS
				24858.3	-42.528	-29.13	PASS
			1	2400.00	-47.331	-29.17	PASS
				23742.1	-43.145	-29.17	PASS
		242RU61	0	2400.00	-48.352	-33.14	PASS
				2398.79	-46.721	-33.14	PASS
				22720.2	-42.401	-33.14	PASS
			1	2400.00	-48.753	-33.24	PASS
				2398.14	-46.745	-33.24	PASS
IEEE 802.11ax_40	9	484RU65	0	23501.8	-42.834	-33.24	PASS
				22769.5	-46.902	-42.13	PASS
				23599.1	-46.647	-42.91	PASS
			1	2483.50	-47.521	-43.21	PASS
				24827.7	-47.337	-43.21	PASS
		996RU67	0	24842.1	-47.479	-42.55	PASS
				2483.50	-48.470	-42.55	PASS
				2483.50	-52.076	-22.51	PASS
			1	23754.6	-42.536	-22.51	PASS
				2483.50	-36.607	-20.72	PASS
		26RU17	0	23157.8	-42.629	-20.72	PASS
				2483.50	-52.156	-25.17	PASS
				23335.1	-43.648	-25.17	PASS
			1	2483.50	-50.693	-25.03	PASS
				23760.2	-43.245	-25.03	PASS

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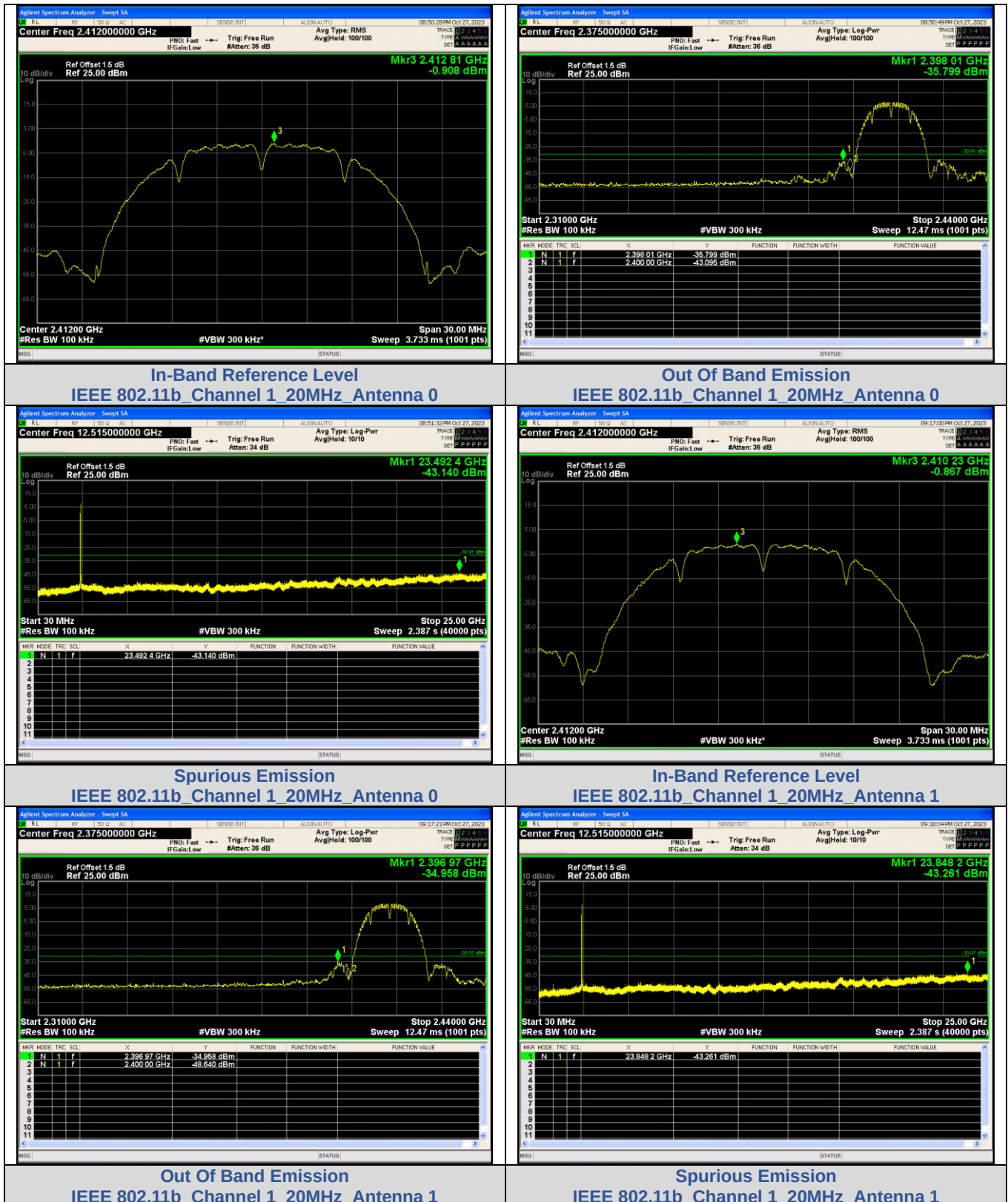
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		106RU56	0	2483.50	-51.676	-28.83	PASS
				23688.4	-42.557	-28.83	PASS
			1	2483.50	-52.285	-29.65	PASS
				24815.8	-43.497	-29.65	PASS
		242RU62	0	2483.50	-49.326	-32.66	PASS
				24335.2	-42.710	-32.66	PASS
			1	2483.50	-38.087	-32.82	PASS
				24938.8	-42.651	-32.82	PASS



Test plot as follows:



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