

TEST REPORT

Report No. : **CTC2026290603**

FCC ID : **2BWTR-26001**

Applicant : **shenzhenshinahongkejiyouxiangongsi**

Address : longhuaqu minzhijiedaoxinniushequ minzhidadao 997hao
wanzhongchacheng 1dong 211 shenzhen China

Manufacturer : shenzhenshinahongkejiyouxiangongsi

Address : longhuaqu minzhijiedaoxinniushequ minzhidadao 997hao
wanzhongchacheng 1dong 211 shenzhen China

Product Name : **Wireless Bridge**

Trade Mark : UeeVii

Model/Type reference : CPE5824

Listed Model : CPE5824Kit, CPE868, CPE770, CPE980, CPE985, CPE960,
CPE330, CPE680, CPE888, CPE653, CPE745, CPE854,
CPE756, CPE766, CPE788, CPE833, CPE899, CPE711,
CPEXXX (XXX can represent numbers, letters, and punctuation
marks)

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

Test Report Form No : CTC-TR-062_A5

Master TRF : Dated 2026-06-01

Date of receipt of test sample : Jun. 5, 2026

Date of testing : Jun. 5, 2026~ Jul. 1, 2026

Date of issue : Jul. 8, 2026

Result : **PASS**

Compiled by:

(Printed name+signature)

Alicia Liu

Alicia Liu

Supervised by:

(Printed name+signature)

Eric Zhang

Eric Zhang

Approved by:

(Printed name+signature)

Totti Zhao

Totti Zhao

This test report may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by CTC. The test result in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to CTC within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.

Table of Contents		Page
1. TEST SUMMARY		3
1.1. TEST STANDARDS.....		3
1.2. REPORT VERSION		3
1.3. TEST DESCRIPTION.....		4
1.4. TEST FACILITY		5
1.5. MEASUREMENT UNCERTAINTY.....		6
1.6. ENVIRONMENTAL CONDITIONS.....		6
2. GENERAL INFORMATION		7
2.1. CLIENT INFORMATION		7
2.2. GENERAL DESCRIPTION OF EUT		7
2.3. ACCESSORY EQUIPMENT INFORMATION		9
2.4. OPERATION STATE		10
2.5. MEASUREMENT INSTRUMENTS LIST		12
3. TEST ITEM AND RESULTS		14
3.1. CONDUCTED EMISSION.....		14
3.2. RADIATED EMISSION.....		17
3.3. BAND EDGE EMISSIONS.....		52
3.4. BANDWIDTH.....		78
3.5. OUTPUT POWER		122
3.6. POWER SPECTRAL DENSITY		124
3.7. FREQUENCY STABILITY		141
3.8. ANTENNA REQUIREMENT.....		144

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 C63.10-2020](#): 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	CTC2026290603	Jul. 8, 2026	Original

1.3. Test Description

FCC Part 15 Subpart E (15.407)			
Test Item	Standard Section	Result	Note
Antenna Requirement	15.203	Pass	/
Conducted Emission	15.207	Pass	/
Band Edge Emissions	15.407(b)	Pass	/
26dB Bandwidth & 99% Bandwidth	15.407(a)	Pass	/
6dB Bandwidth (only for UNII-3)	15.407(e)	Pass	/
Peak Output Power	15.407(a)	Pass	/
Power Spectral Density	15.407(a)	Pass	/
Transmitter Radiated Spurious Emission	15.407(b) & 15.209	Pass	/
Frequency Stability	15.407(g)	Pass	/
Dynamic Frequency Selection (DFS)	15.407(h)	N/A	N/A
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 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luh 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	-40 °C
	T_H =Higher Temperature	75 °C

2. GENERAL INFORMATION

2.1. Client Information

Applicant:	shenzhenshinahongkejiyouxiangongsi
Address:	longhuaqu minzhijiedaoxinniushequ minzhidadao 997hao wanzhongchacheng 1dong 211 shenzhen China
Manufacturer:	shenzhenshinahongkejiyouxiangongsi
Address:	longhuaqu minzhijiedaoxinniushequ minzhidadao 997hao wanzhongchacheng 1dong 211 shenzhen China
Factory:	shenzhenshinahongkejiyouxiangongsi
Address:	longhuaqu minzhijiedaoxinniushequ minzhidadao 997hao wanzhongchacheng 1dong 211 shenzhen China

2.2. General Description of EUT

Product Name:	Wireless Bridge
Trade Mark:	UeeVii
Model/Type reference:	CPE5824
Listed Model:	CPE5824Kit, CPE868, CPE770, CPE980, CPE985, CPE960, CPE330, CPE680, CPE888, CPE653, CPE745, CPE854, CPE756, CPE766, CPE788, CPE833, CPE899, CPE711, CPEXXX (XXX can represent numbers, letters, and punctuation marks)
Model Difference:	All these models are identical with the Main in the same PCB, layout and electrical circuit. Just name the differences.
Sample ID:	CTC-GC260603-001-S001
Power Supply:	Input: 100-240V~ 0.8A from AC/DC Adapter
Adapter Model:	MODEL: GRT-POE15-240100A INPUT: 100-240V~0.8A Max 50/60Hz OUTPUT: 24.0Vdc/1.0A 24.0W
Hardware Version:	/
Software Version:	/

5G Wi-Fi					
Operation Band:	☐ U-NII-1	☐ U-NII-2A	☐ U-NII-2C	☒ U-NII-3	
Operation Frequency:	U-NII-3	5745MHz~5825MHz			
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:	CPE Aluminum Plate Antenna				
Antenna Gain:	U-NII-3	13.36dBi			

2.3. Accessory Equipment Information

Equipment Information			
Name	Model	S/N	Manufacturer
Notebook	ThinkBook 14 G3 ACL	MP246Q6S	Lenovo
/	/	/	/
Cable Information			
Name	Shielded Type	Ferrite Core	Length
/	/	/	/
Test Software Information			
Name	Version	/	/
QATool_Dbg	MT7915 QA 0.0.2.33	/	/

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		160MHz Bandwidth	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
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		160MHz Bandwidth	
		Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
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	CPE Aluminum Plate Antenna	IPEX	13.36
2	NA	NA	CPE Aluminum Plate Antenna	IPEX	13.36

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

According to KDB 662911 D01, Directional Gain = $G_{Ant} + 10\log(N)$ dBi, that is Directional Gain = $13.36 + 10\log(2)$ dBi = 16.37 dBi. So, output power limit of UNII-3 is $30 - 16.37 + 6 = 19.63$ dBm. The power spectral density limit of UNII-3 is $30 - 16.37 + 6 = 19.63$ dBm/500kHz.

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. 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, 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

Radiated emission						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-759	Oct. 17, 2025	Oct. 16, 2027
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-648	Dec. 12, 2024	Dec. 11, 2026
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 13, 2025	Dec. 12, 2026
4	Broadband Amplifier	Schwarzbeck	BBV9743B	259	Dec. 13, 2025	Dec. 12, 2026
5	Mirowave Broadband Amplifier	Schwarzbeck	BBV9718C	111	Dec. 13, 2025	Dec. 12, 2026
6	RE33L-001	COMM	/	014 (9kHz-1GHz)	Feb. 09, 2026	Feb. 08, 2027
7	RE33L-002	COMM	/	015 (9kHz-1GHz)	Feb. 09, 2026	Feb. 08, 2027
8	RE33H-001	SUHB SUCOFLEX	/	016 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
9	RE33H-002	HUBENR	/	017 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
10	RE33H-003	HUBENR	/	018 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
11	RE33H-003	HUBENR	/	019 (18GHz-40GHz)	Feb. 09, 2026	Feb. 08, 2027
12	3m chamber 3	YIHENG	EE106	/	Aug. 29, 2023	Aug. 28, 2026
Test Software						
Name		Manufacturer		Software Version		
EZ-EMC		FARA		FA-03A2		

Radiated emission						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-1013	Dec. 18, 2024	Dec. 17, 2026
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Oct. 17, 2025	Oct. 16, 2027
3	Spectrum Analyzer	R&S	FSV40-N	101654	Dec. 13, 2025	Dec. 12, 2026
4	Pre-Amplifier	SONOMA	310	186194	Dec. 13, 2025	Dec. 12, 2026
5	Low Noise Pre-Amplifier	EMCI	EMC051835	980075	Dec. 13, 2025	Dec. 12, 2026
6	Test Receiver	R&S	ESC17	100967	Dec. 13, 2025	Dec. 12, 2026
7	RE32L-001	HUBENR	/	009 (9kHz-1GHz)	Feb. 09, 2026	Feb. 08, 2027
8	RE32L-002	HUBENR	/	010 (9kHz-1GHz)	Feb. 09, 2026	Feb. 08, 2027
9	RE32L-003	HUBENR	/	011 (9kHz-1GHz)	Feb. 09, 2026	Feb. 08, 2027
10	RE32H-001	HUBENR	/	012 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
11	RE32H-002	HUBENR	/	013 (1GHz-18GHz)	Feb. 09, 2026	Feb. 08, 2027
12	3m chamber 2	Frankonia	EE025	/	Oct. 19, 2024	Oct. 18, 2027
Test Software						
Name		Manufacturer		Software Version		
EZ-EMC		FARA		FA-03A2		

CTC Laboratories, Inc.

Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhua Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

Master TRF : Dated 2026-06-01

RF Test System – SRD						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Spectrum Analyzer	R&S	FSV40-N	101654	Dec. 13, 2025	Dec. 12, 2026
2	MXG Vector Signal Generator	Agilent	N5182A	MY47420864	Dec. 13, 2025	Dec. 12, 2026
3	PSG Analog Signal Generator	Agilent	E8257D	MY46521908	Dec. 13, 2025	Dec. 12, 2026
4	USB Wideband Power Sensor	Keysight	U2021XA	MY55130004	Mar. 25, 2026	Mar. 24, 2027
5	USB Wideband Power Sensor	Keysight	U2021XA	MY55130006	Mar. 25, 2026	Mar. 24, 2027
6	Wideband Radio Communication Tester	R&S	CMW500	102257	Mar. 25, 2026	Mar. 24, 2027
7	RF Control Unit	Tonscend	JS0806-2	/	Mar. 25, 2026	Mar. 24, 2027
8	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 25, 2026	Mar. 24, 2027
9	RF Cable	HUBER+SUHNER	SUCOFLEX101PE	RF-08	Apr. 16, 2025	Apr. 15, 2026
10	RF Cable	HUBER+SUHNER	SUCOFLEX101PE	RF-08	Apr. 16, 2026	Apr. 15, 2027
Test Software						
Name		Manufacturer		Software Version		
JS1120-3		Tonscend		V2.6.88.0346		

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

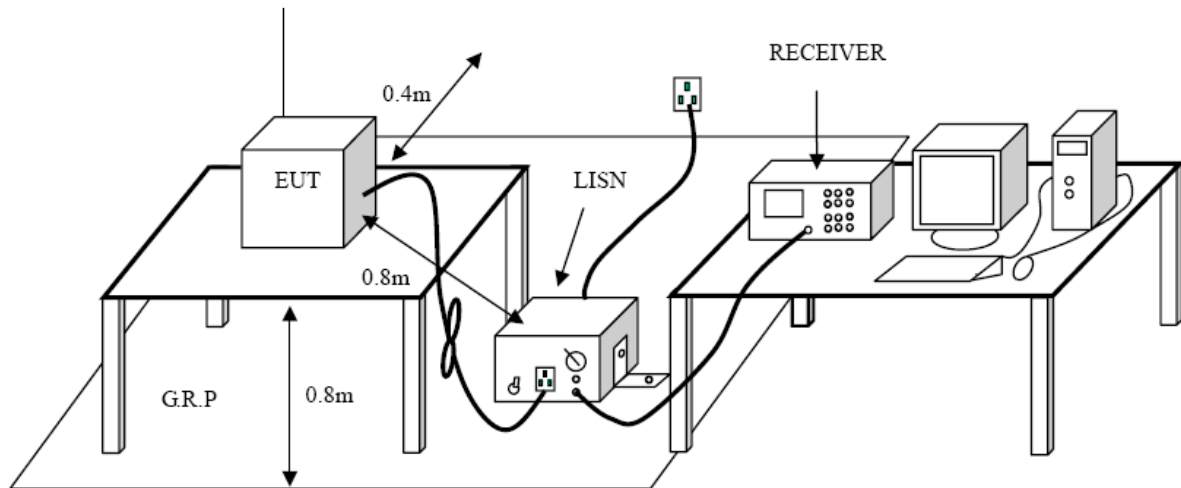
Limit

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

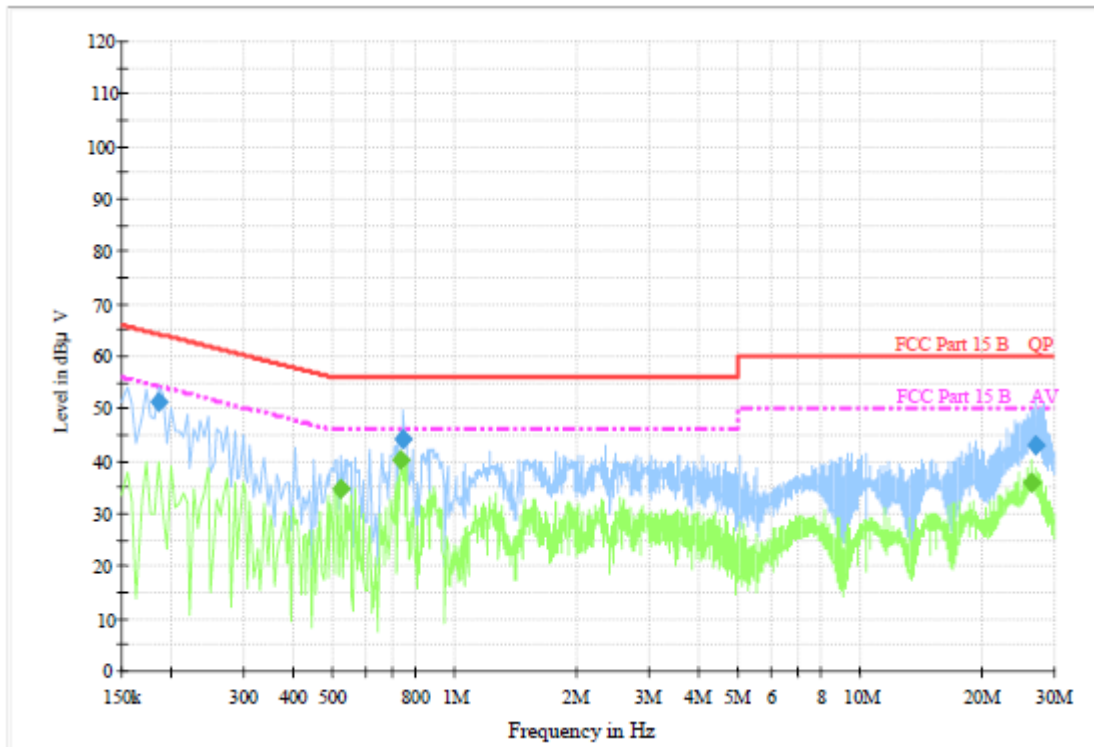
1. The EUT was setup according to ANSI C63.10:2020 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from 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**

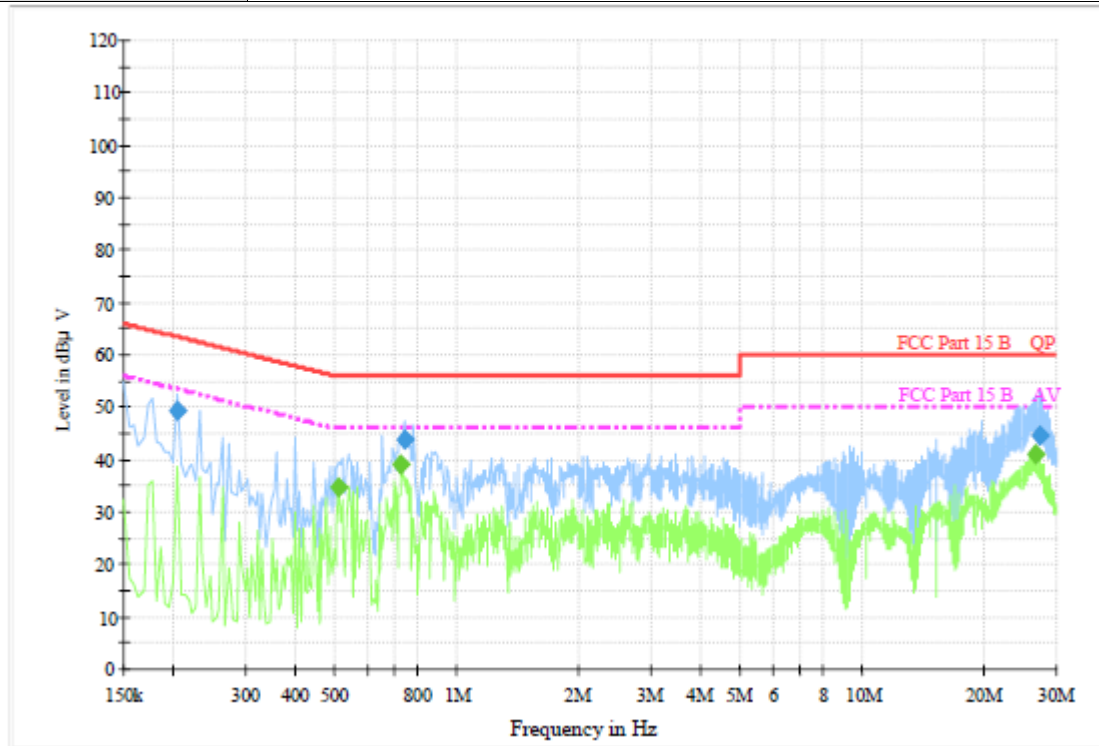
Frequency (MHz)	QuasiPeak (dBμ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.186000	51.4	1000.00	9.000	On	L1	9.3	12.8	64.2	
0.744000	44.3	1000.00	9.000	On	L1	9.7	11.7	56.0	
27.010500	43.0	1000.00	9.000	On	L1	9.7	17.0	60.0	

Final Measurement Detector 2

Frequency (MHz)	Average (dBμ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμ V)	Comment
0.519000	34.6	1000.00	9.000	On	L1	9.4	11.4	46.0	
0.730500	40.3	1000.00	9.000	On	L1	9.7	5.7	46.0	
26.421000	36.0	1000.00	9.000	On	L1	9.7	14.0	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
0.204000	49.5	1000.00	9.000	On	N	9.2	13.9	63.4	
0.739500	43.7	1000.00	9.000	On	N	9.2	12.3	56.0	
27.177000	44.6	1000.00	9.000	On	N	9.7	15.4	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
0.510000	34.7	1000.00	9.000	On	N	9.6	11.3	46.0	
0.726000	39.0	1000.00	9.000	On	N	9.2	7.0	46.0	
26.722500	41.1	1000.00	9.000	On	N	9.7	8.9	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)

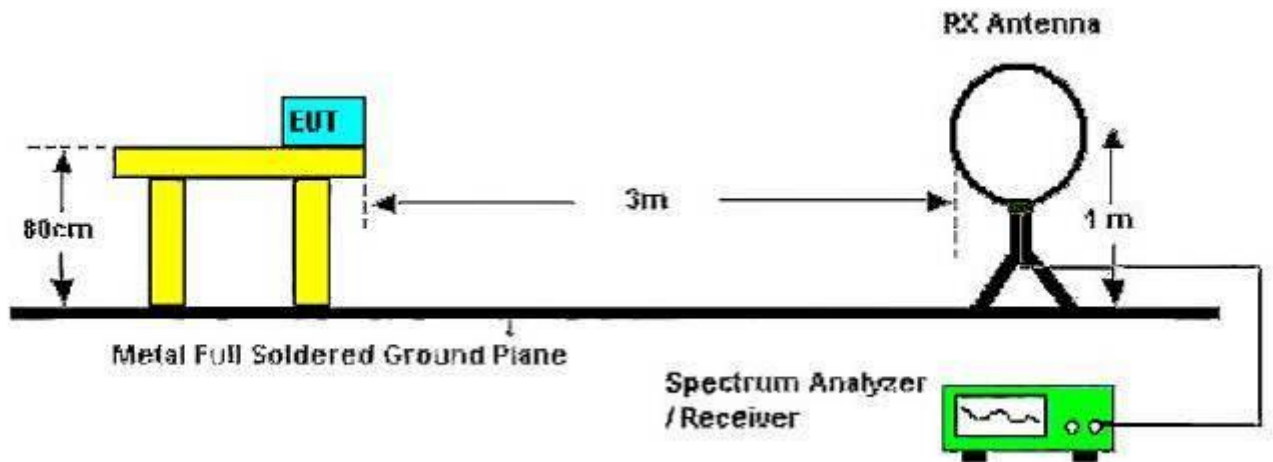
Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150~5250	-27	68.2
5250~5350	-27	68.2
5470~5725	-27	68.2
5725~5825	-27 (Note 2)	68.2
	10 (Note 2)	105.2
	15.6 (Note 2)	110.8
	27 (Note 2)	122.2

Note:

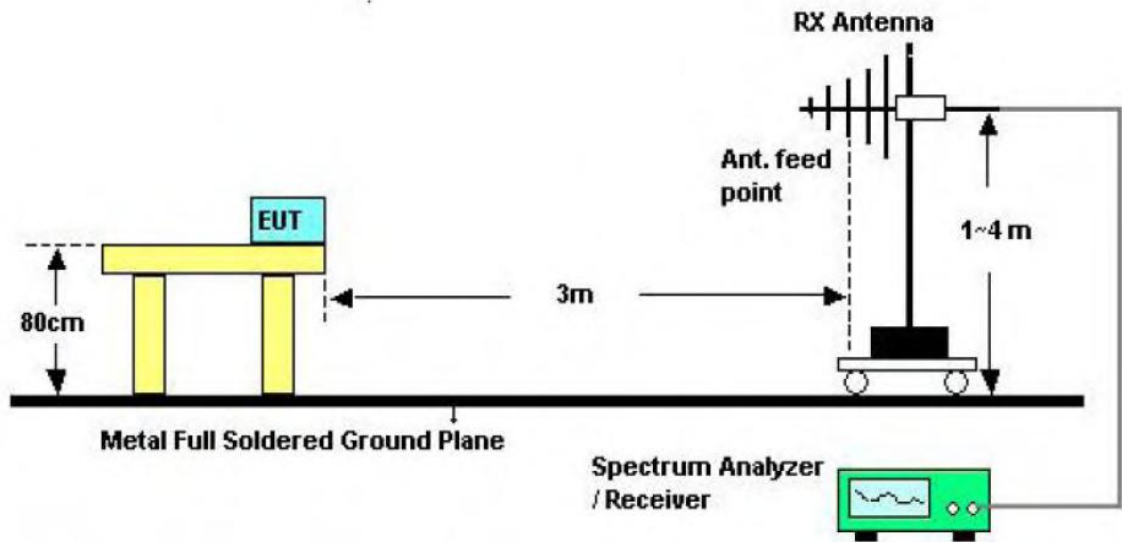
1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field

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

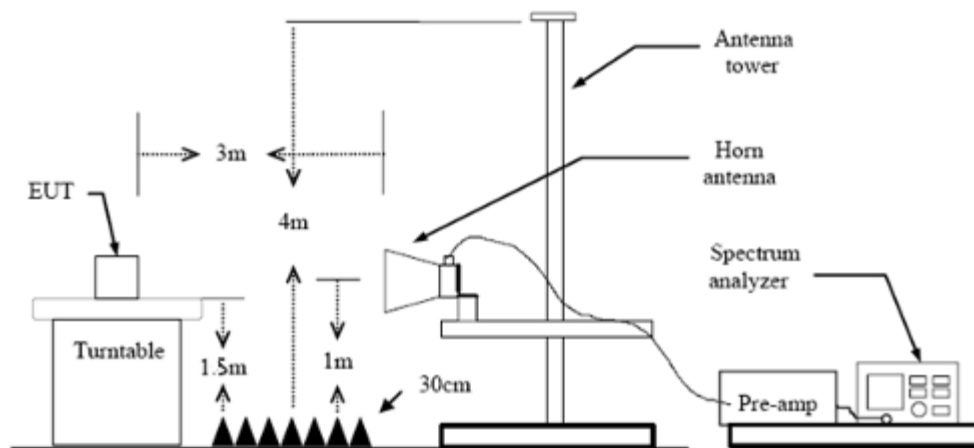
2. According to FCC 16-24, all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 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.

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 C63.10:2020.
 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 Duty Cycle.

Test Mode

Please refer to the clause 2.4.

Test Result

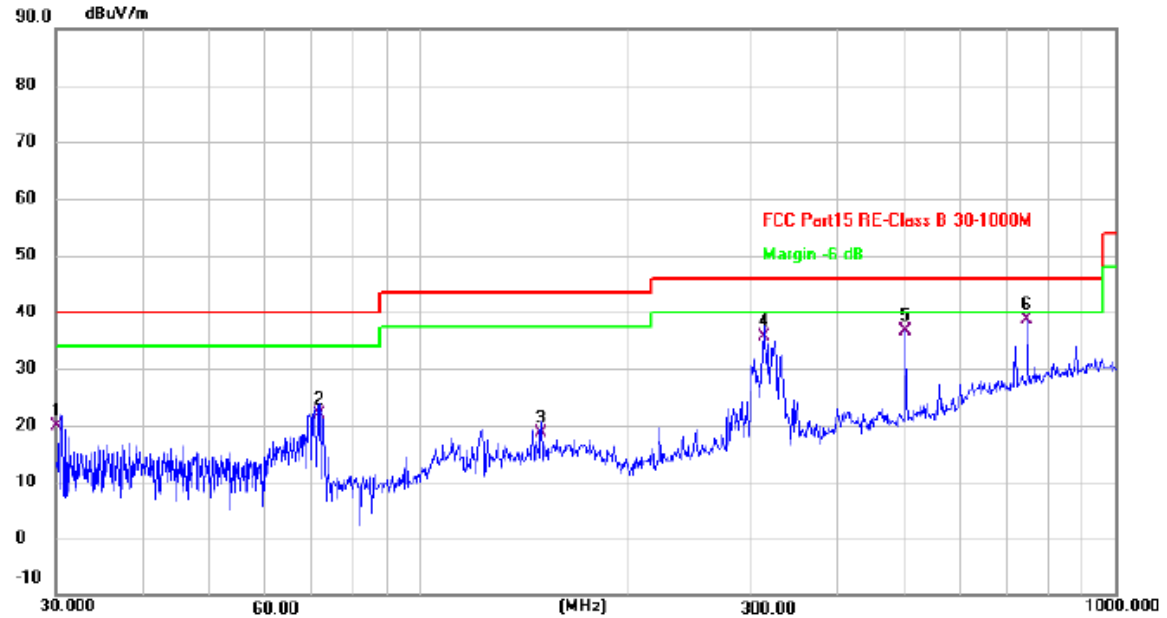
9 kHz~30 MHz

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 5745MHz (U-NII-3)
Remark:	Only worse case is reported.



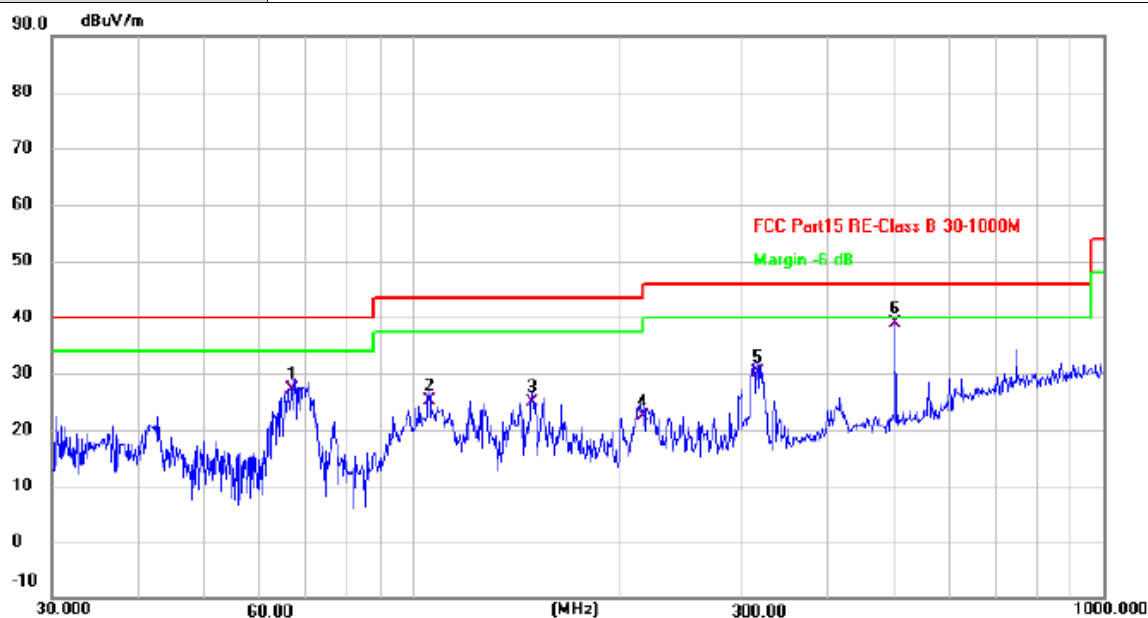
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.0000	35.64	-15.66	19.98	40.00	-20.02	QP
2	71.8320	41.39	-19.42	21.97	40.00	-18.03	QP
3	149.4857	33.91	-15.25	18.66	43.50	-24.84	QP
4	312.1794	50.37	-14.76	35.61	46.00	-10.39	QP
5	499.4246	46.87	-10.30	36.57	46.00	-9.43	QP
6 *	747.4825	43.84	-5.19	38.65	46.00	-7.35	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 5745MHz (U-NII-3)
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	66.9669	45.53	-18.45	27.08	40.00	-12.92	QP
2	105.6415	44.11	-19.07	25.04	43.50	-18.46	QP
3	148.4410	40.12	-15.33	24.79	43.50	-18.71	QP
4	215.2678	40.88	-18.38	22.50	43.50	-21.00	QP
5	315.4808	44.80	-14.67	30.13	46.00	-15.87	QP
6 *	499.4247	49.17	-10.30	38.87	46.00	-7.13	QP

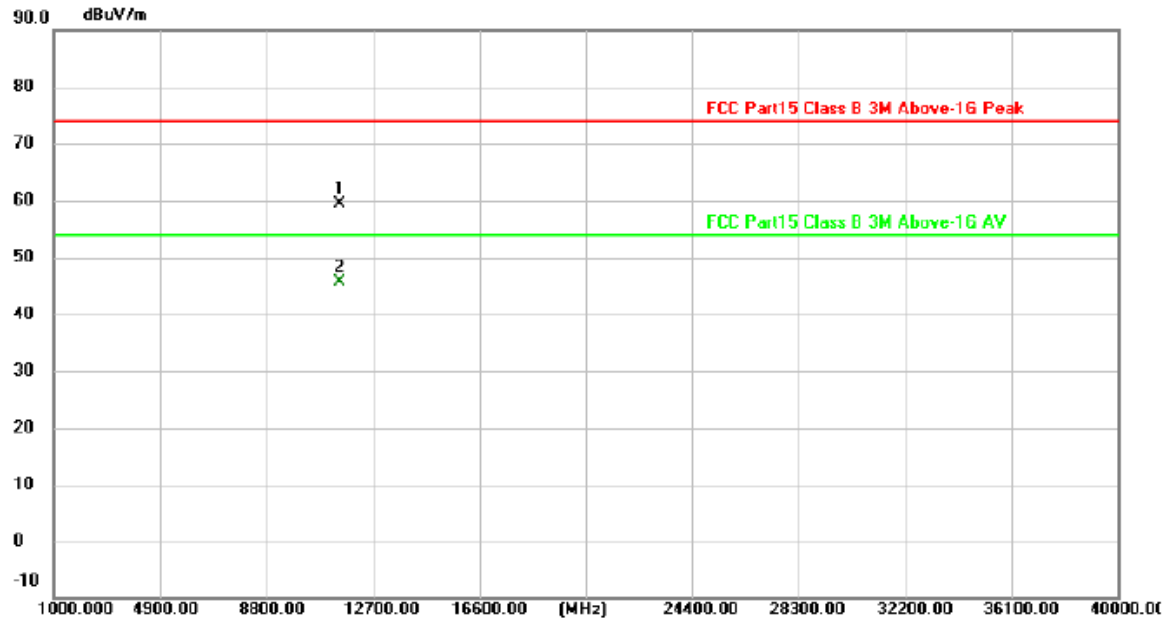
Remarks:

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 5745MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



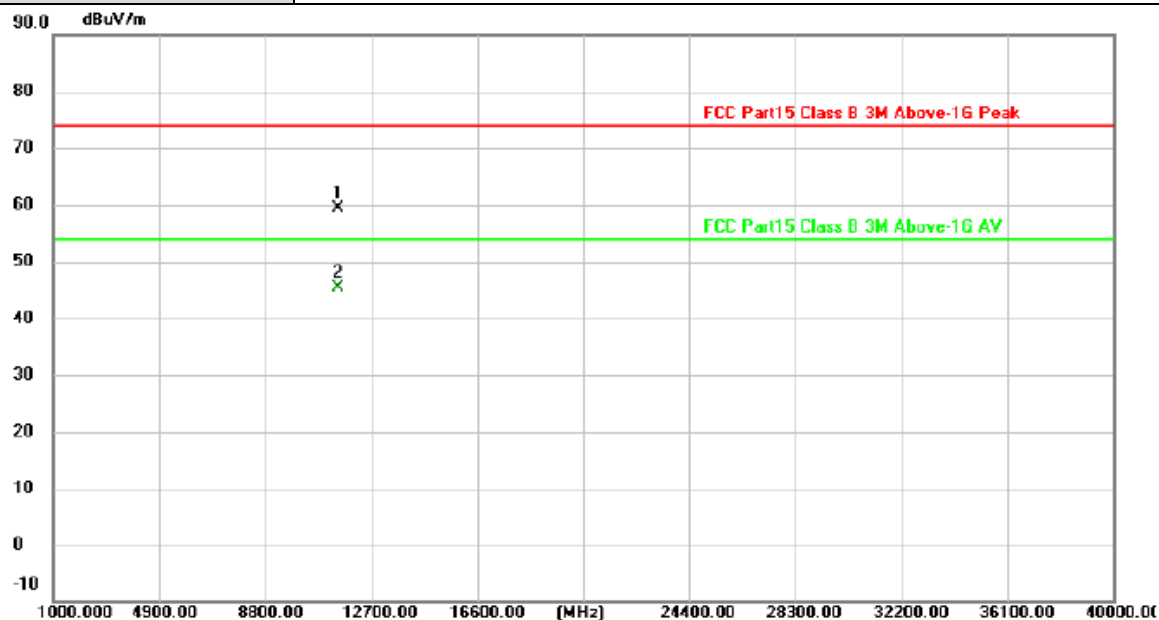
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11489.416	48.82	10.64	59.46	74.00	-14.54	peak
2 *	11489.692	34.92	10.64	45.56	54.00	-8.44	AVG

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. 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.



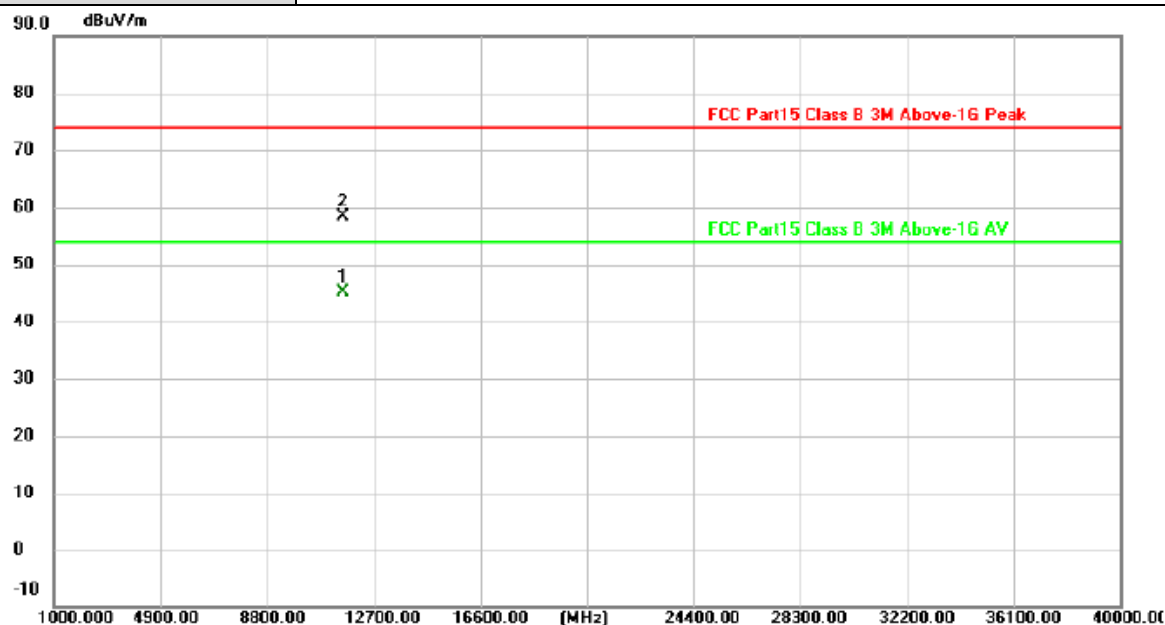
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11490.272	48.76	10.64	59.40	74.00	-14.60	peak
2 *	11490.774	34.68	10.64	45.32	54.00	-8.68	AVG

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. 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.



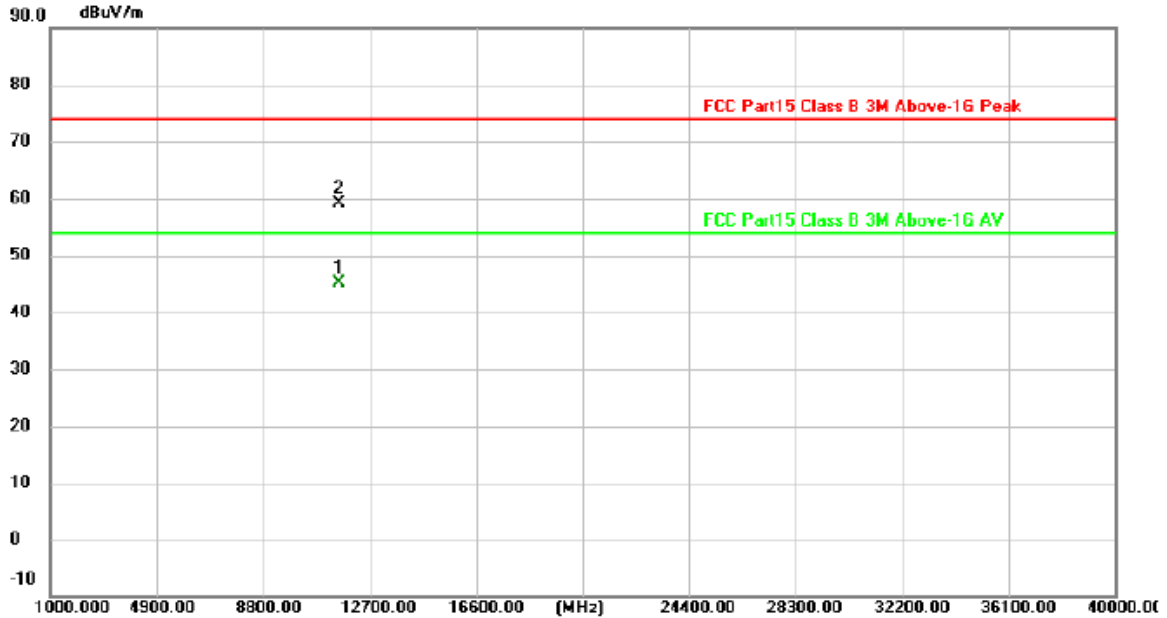
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11569.014	34.56	10.51	45.07	54.00	-8.93	AVG
2	11569.982	47.85	10.51	58.36	74.00	-15.64	peak

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.



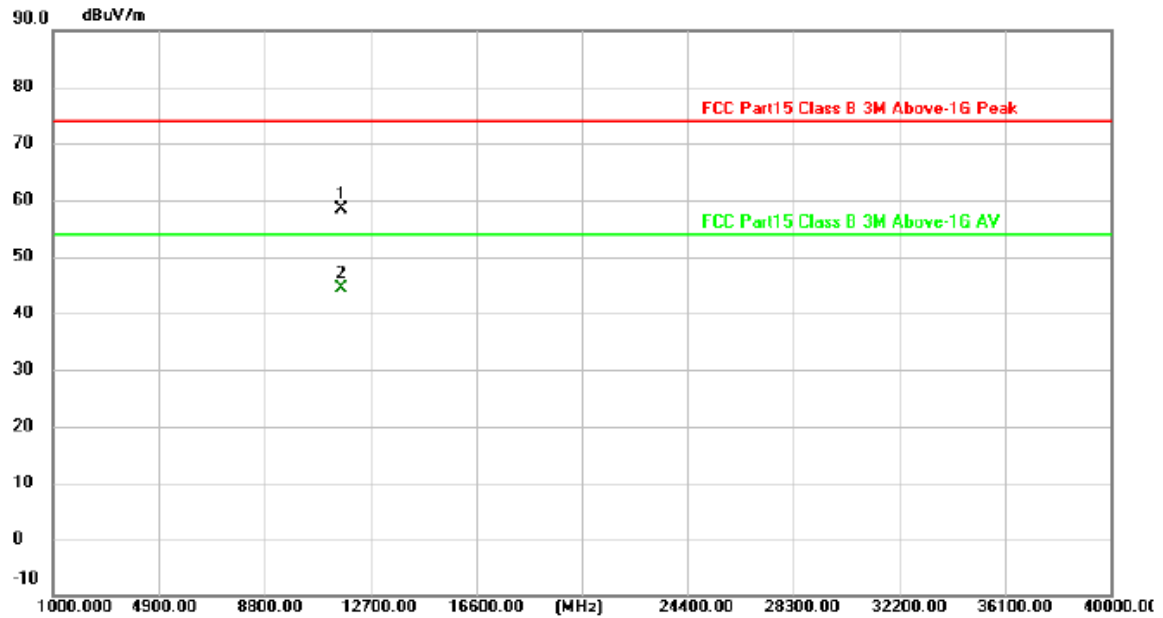
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11570.474	34.60	10.51	45.11	54.00	-8.89	AVG
2	11570.900	48.60	10.51	59.11	74.00	-14.89	peak

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.



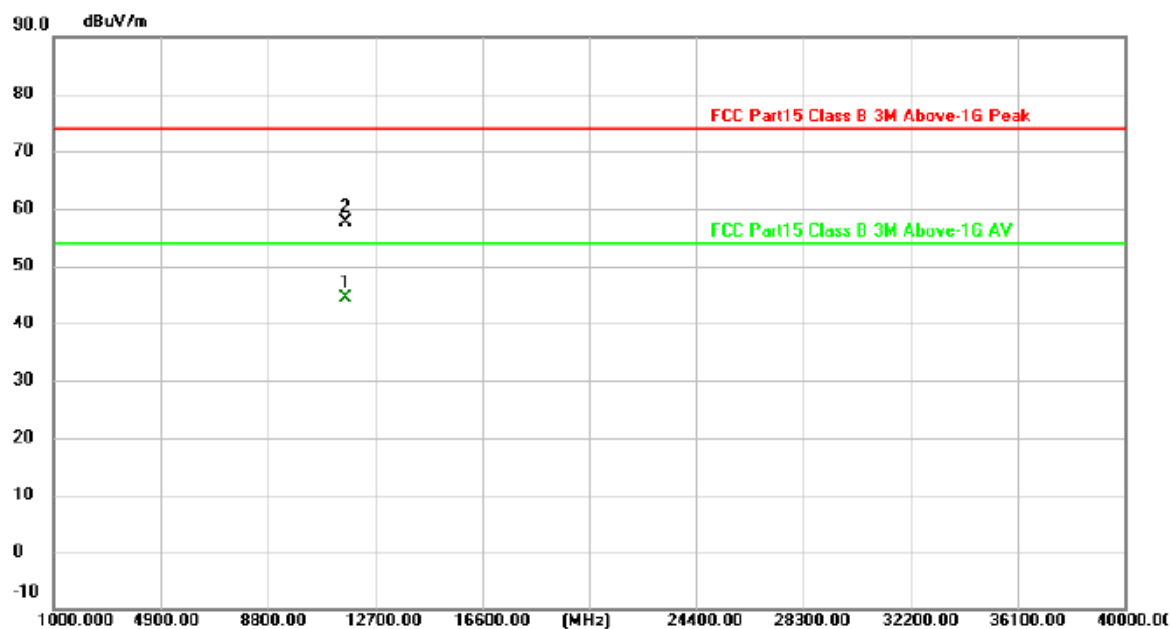
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11649.380	48.09	10.25	58.34	74.00	-15.66	peak
2 *	11649.386	34.11	10.25	44.36	54.00	-9.64	AVG

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. 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.



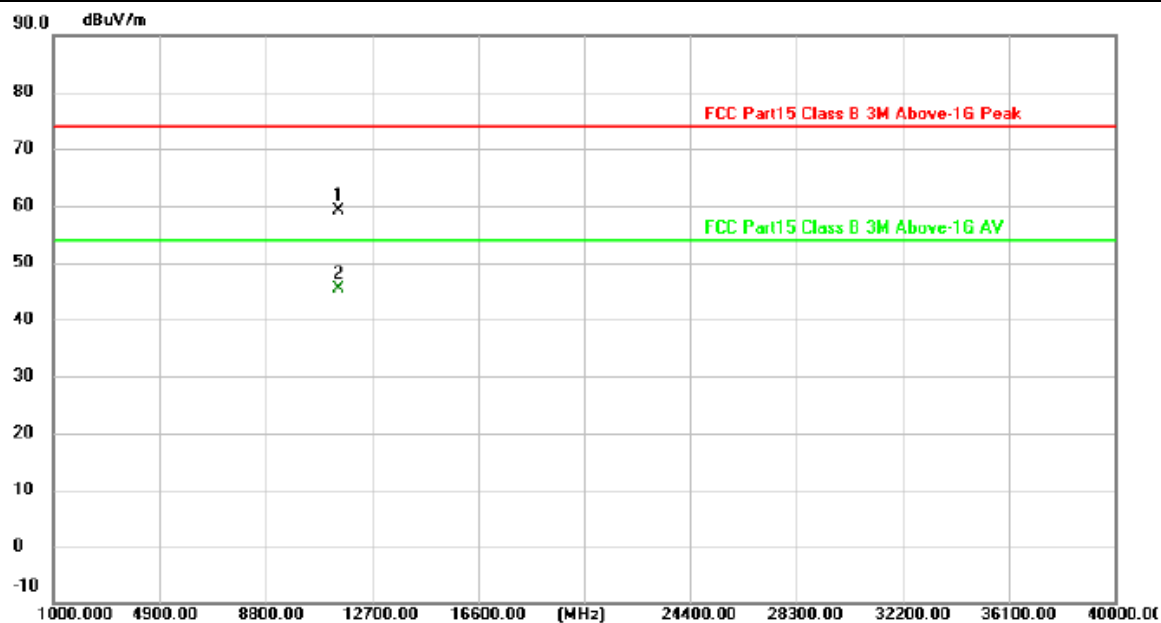
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11650.234	34.04	10.25	44.29	54.00	-9.71	AVG
2	11650.540	47.47	10.25	57.72	74.00	-16.28	peak

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 802.11n(HT20) Mode 5745MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



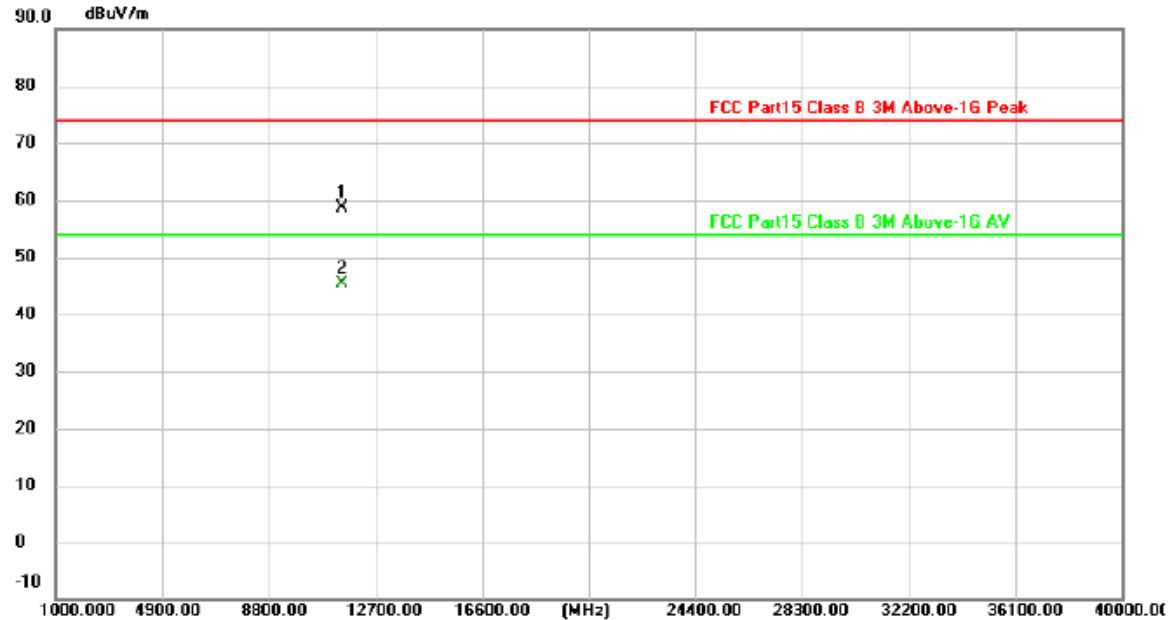
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11490.620	48.49	10.64	59.13	74.00	-14.87	peak
2 *	11490.850	34.81	10.64	45.45	54.00	-8.55	AVG

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. 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.



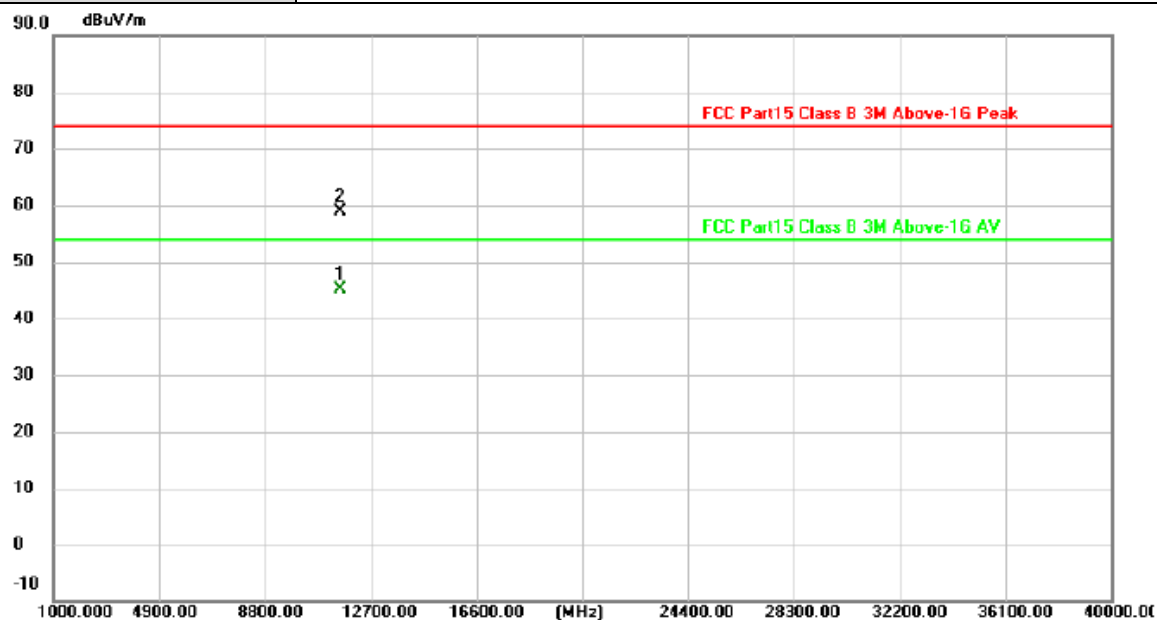
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11489.886	47.93	10.64	58.57	74.00	-15.43	peak
2 *	11490.860	34.74	10.64	45.38	54.00	-8.62	AVG

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. 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.



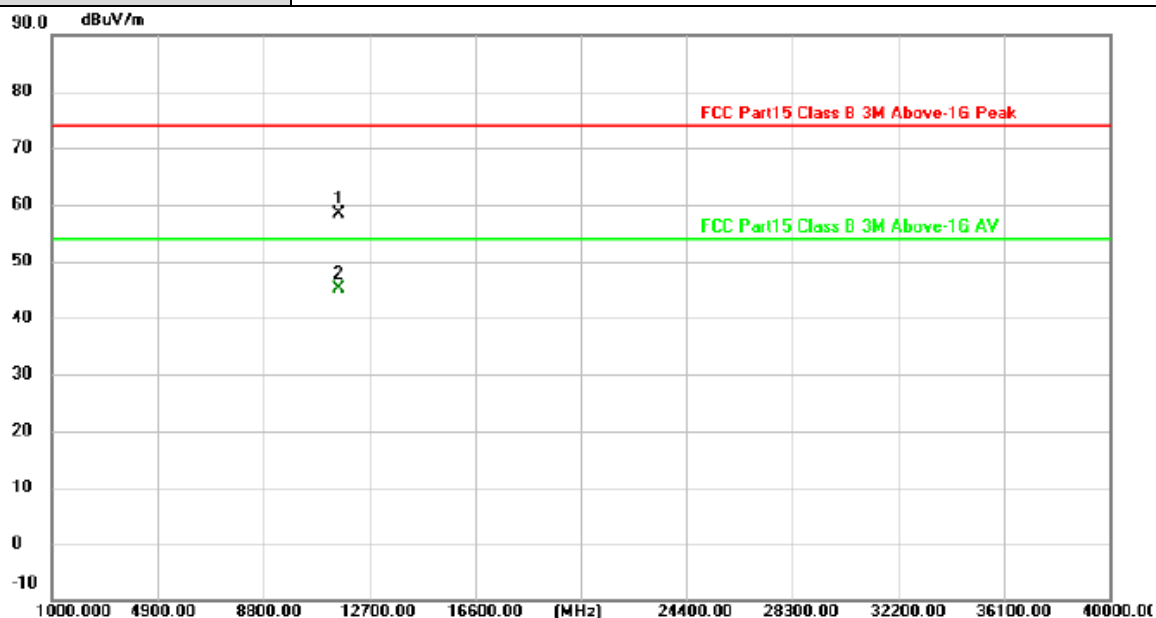
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11569.142	34.55	10.51	45.06	54.00	-8.94	AVG
2	11570.590	48.36	10.51	58.87	74.00	-15.13	peak

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 802.11n(HT20) Mode 5785MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

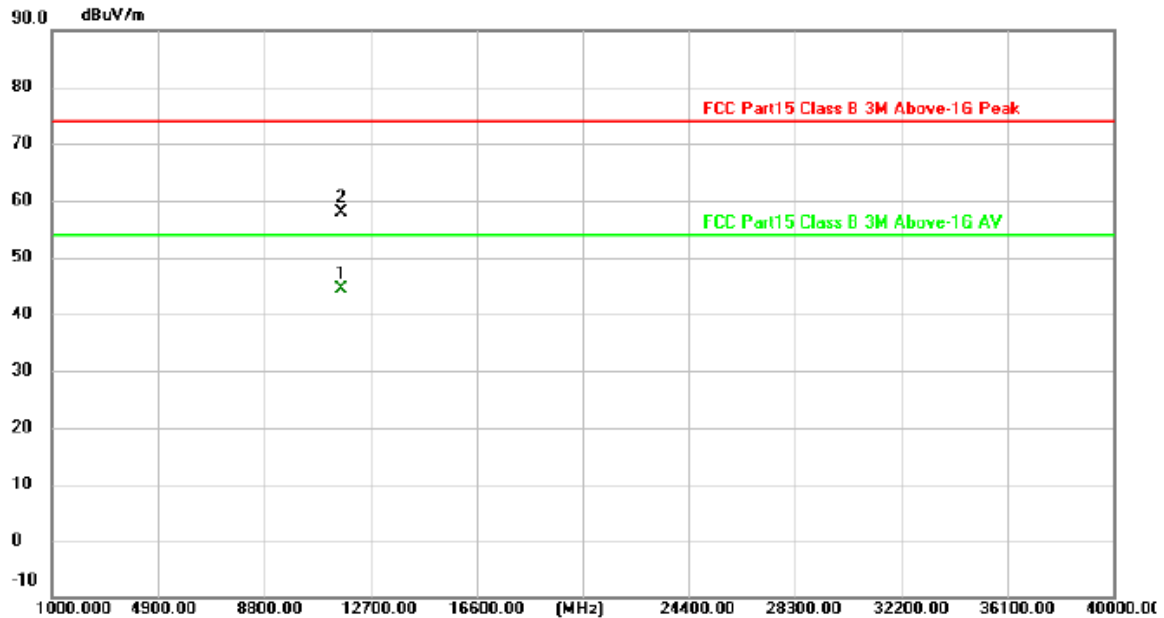


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11569.176	47.97	10.51	58.48	74.00	-15.52	peak
2 *	11570.378	34.64	10.51	45.15	54.00	-8.85	AVG

Remarks:

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

Ant. No.	Ant 1
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.



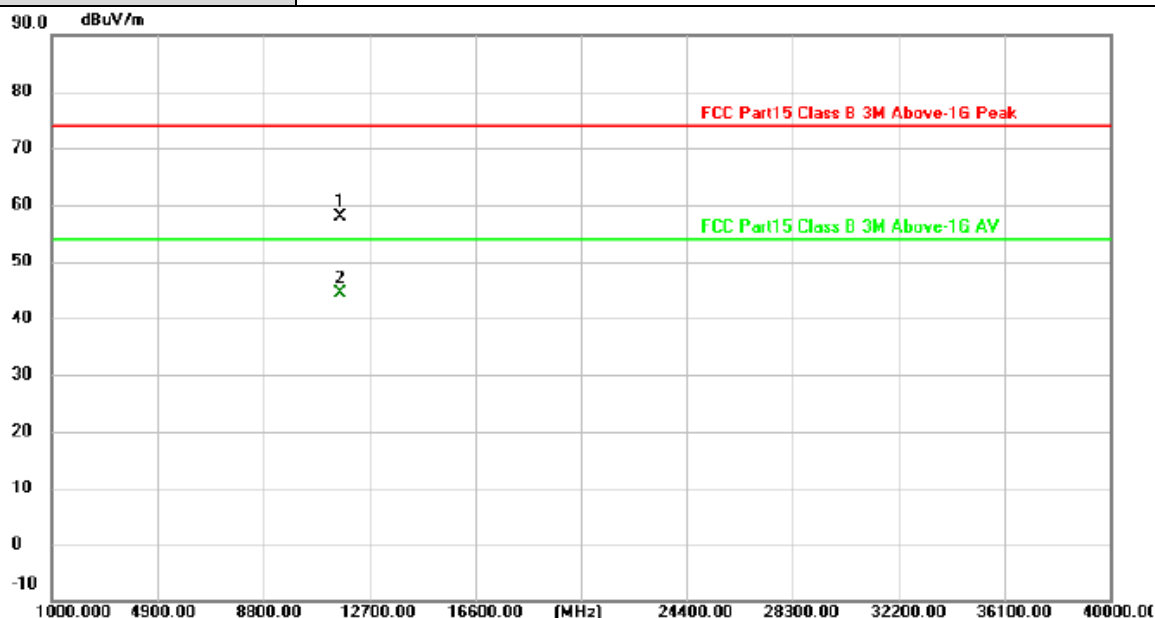
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11649.922	34.06	10.25	44.31	54.00	-9.69	AVG
2	11650.628	47.55	10.25	57.80	74.00	-16.20	peak

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 802.11n(HT20) Mode 5825MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

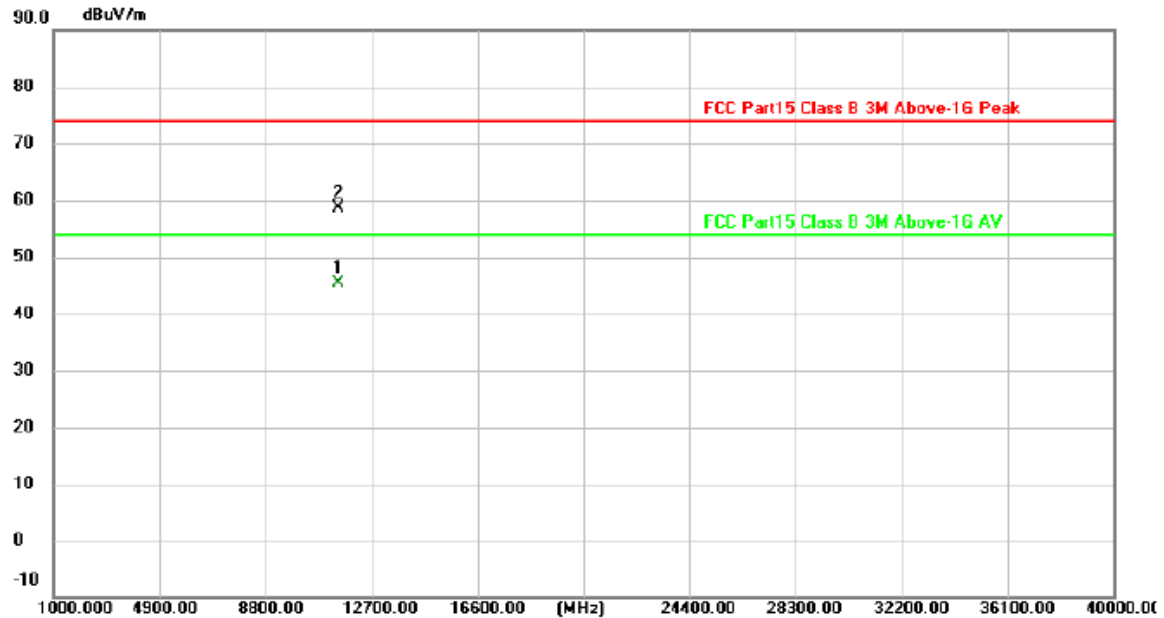


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11650.226	47.54	10.25	57.79	74.00	-16.21	peak
2 *	11650.380	34.07	10.25	44.32	54.00	-9.68	AVG

Remarks:

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

Ant. No.	Ant 1
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.



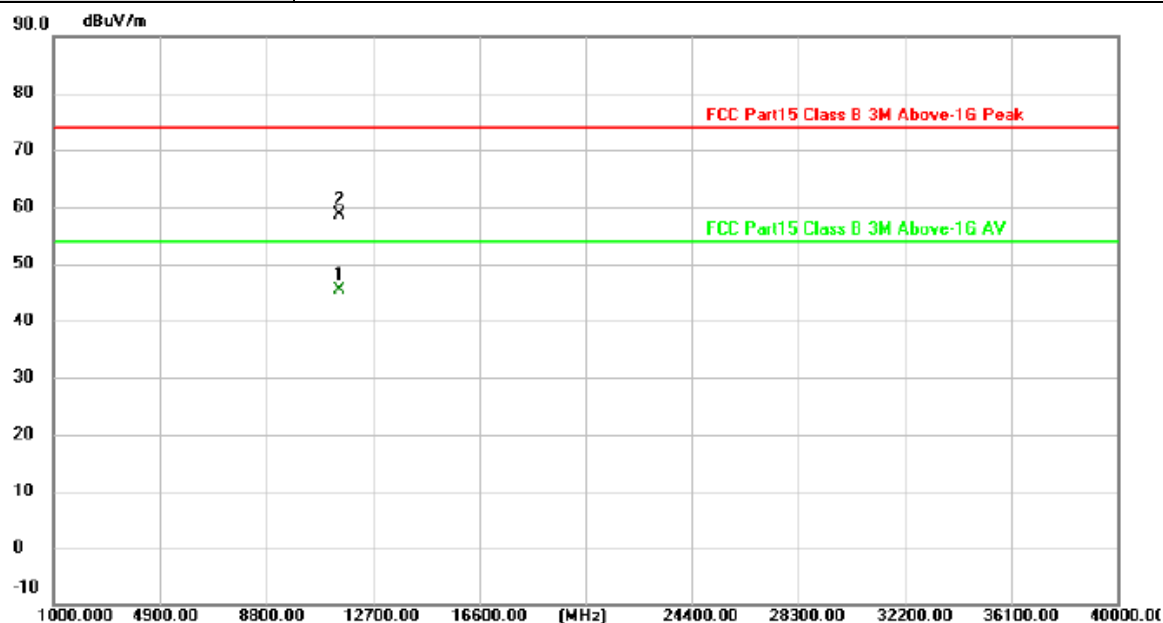
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11509.702	34.84	10.62	45.46	54.00	-8.54	AVG
2	11510.996	48.04	10.62	58.66	74.00	-15.34	peak

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 802.11n(HT40) Mode 5755MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



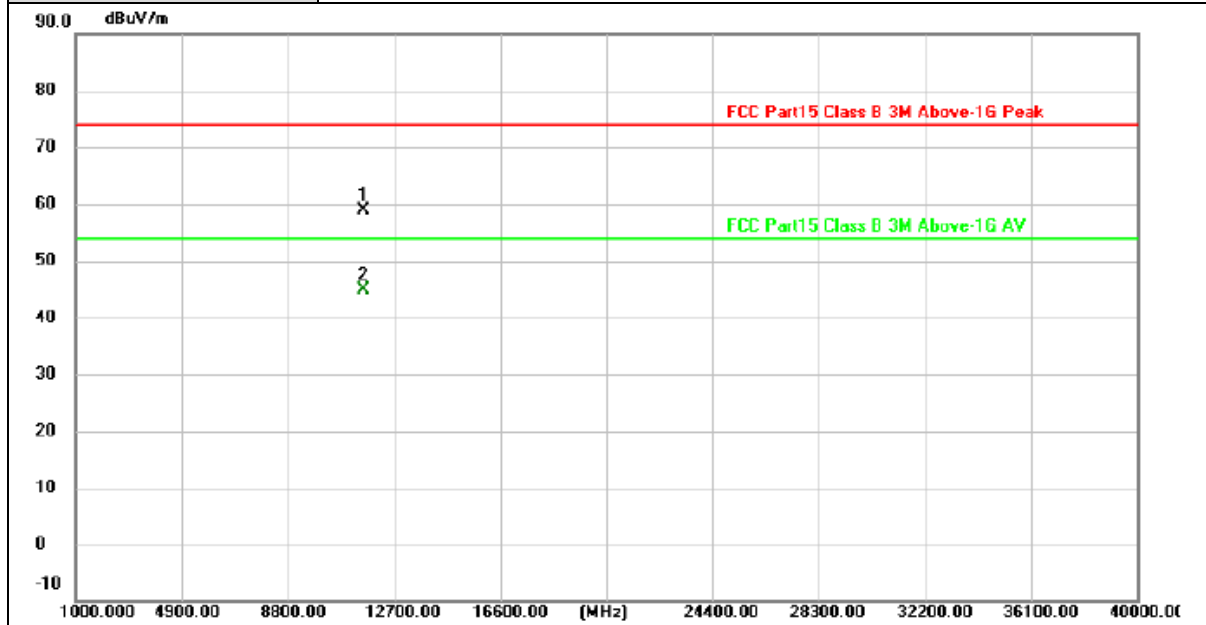
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11510.720	34.85	10.62	45.47	54.00	-8.53	AVG
2	11510.900	47.93	10.62	58.55	74.00	-15.45	peak

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 802.11n(HT40) Mode 5795MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



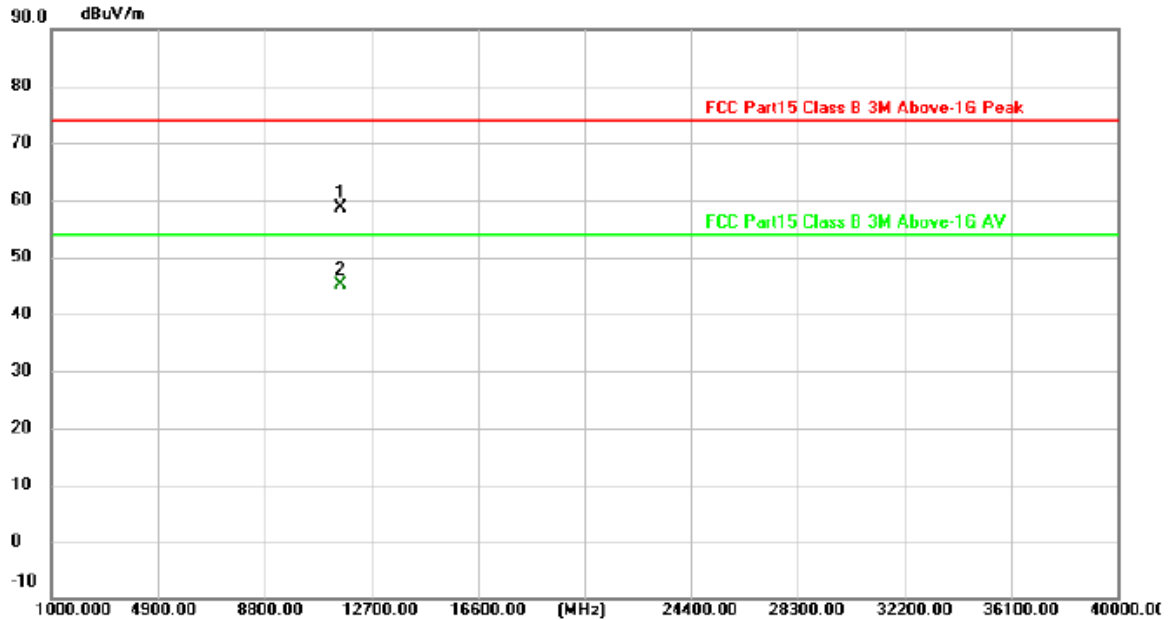
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11589.776	48.41	10.46	58.87	74.00	-15.13	peak
2 *	11590.294	34.48	10.46	44.94	54.00	-9.06	AVG

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 802.11n(HT40) Mode 5795MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



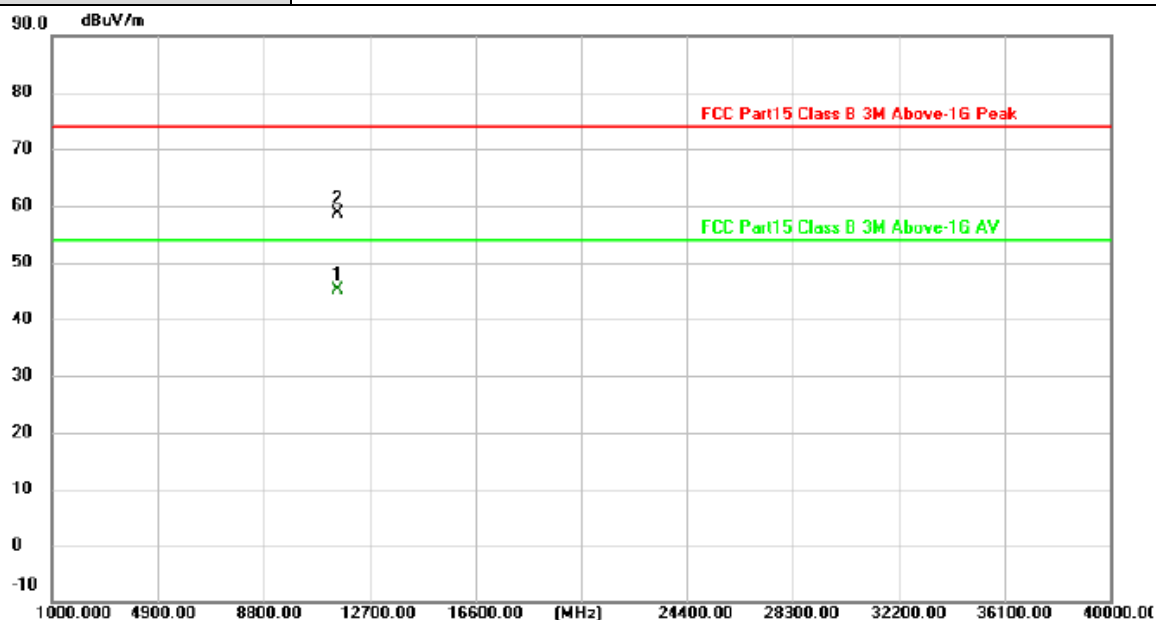
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11589.578	48.16	10.46	58.62	74.00	-15.38	peak
2 *	11590.294	34.57	10.46	45.03	54.00	-8.97	AVG

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. 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.



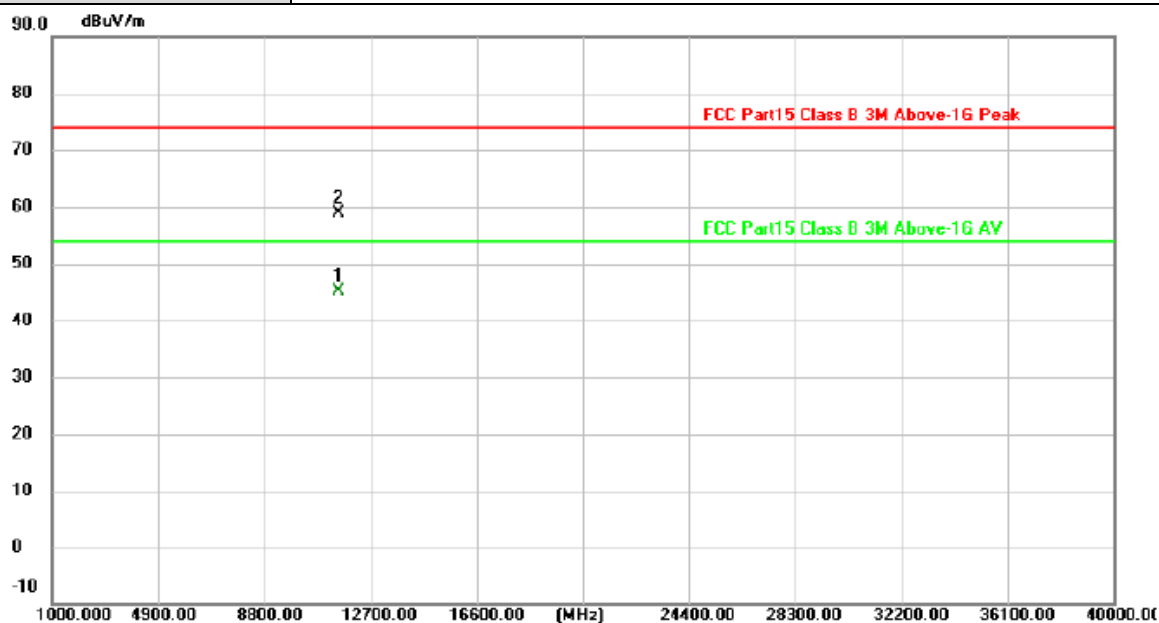
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11549.336	34.60	10.54	45.14	54.00	-8.86	AVG
2	11549.408	48.06	10.54	58.60	74.00	-15.40	peak

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 802.11ac(VHT80) Mode 5775MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



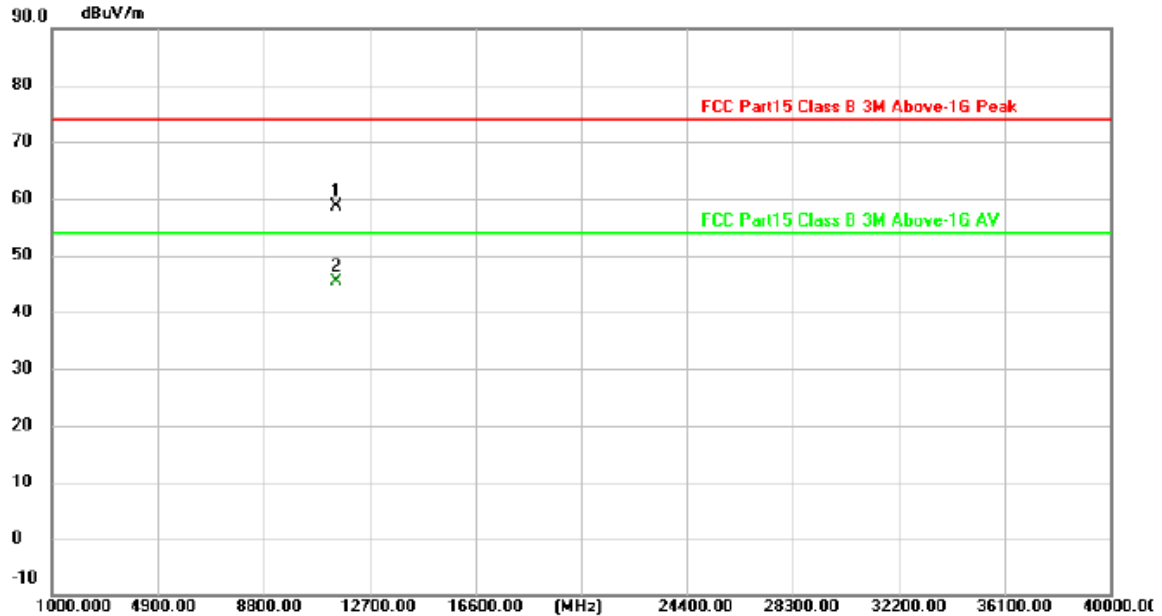
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11550.148	34.58	10.54	45.12	54.00	-8.88	AVG
2	11550.460	48.28	10.54	58.82	74.00	-15.18	peak

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 802.11ax(HE20) Mode 5745MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



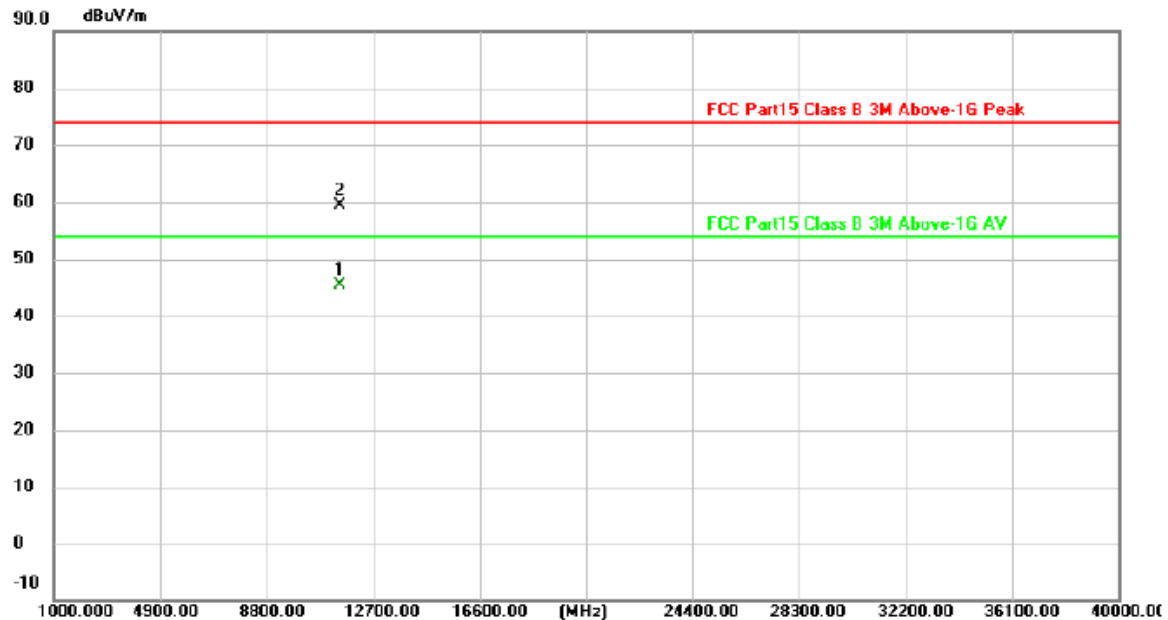
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11489.766	48.10	10.64	58.74	74.00	-15.26	peak
2 *	11489.952	34.74	10.64	45.38	54.00	-8.62	AVG

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. 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.



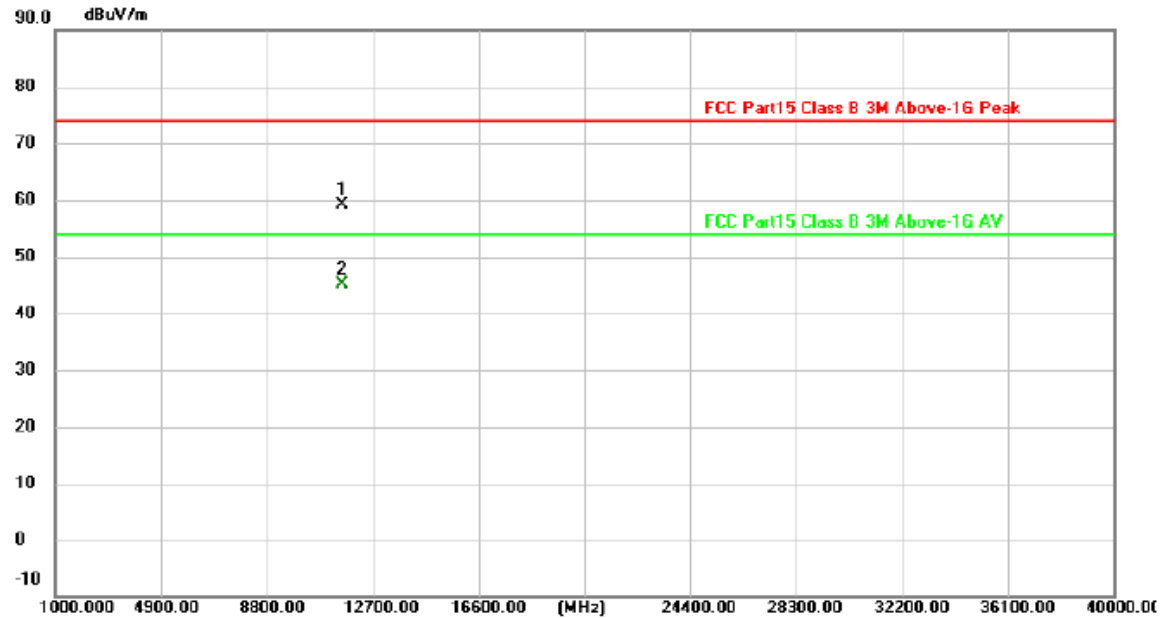
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11489.332	34.73	10.64	45.37	54.00	-8.63	AVG
2	11489.600	48.63	10.64	59.27	74.00	-14.73	peak

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. 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.



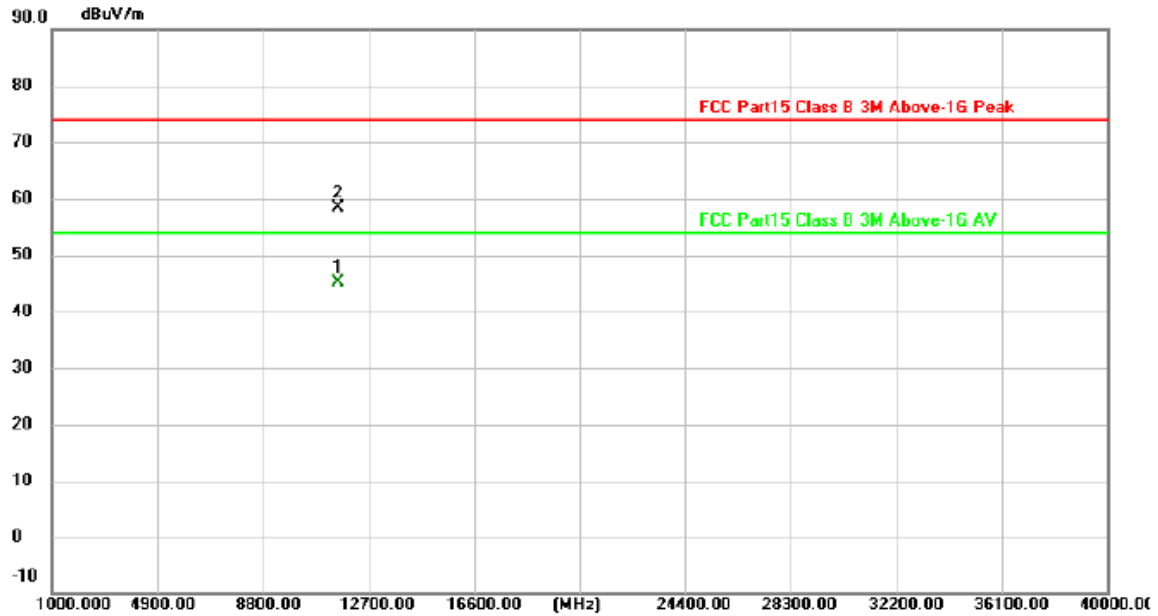
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11569.074	48.53	10.51	59.04	74.00	-14.96	peak
2 *	11570.348	34.59	10.51	45.10	54.00	-8.90	AVG

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 802.11ax(HE20) Mode 5785MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



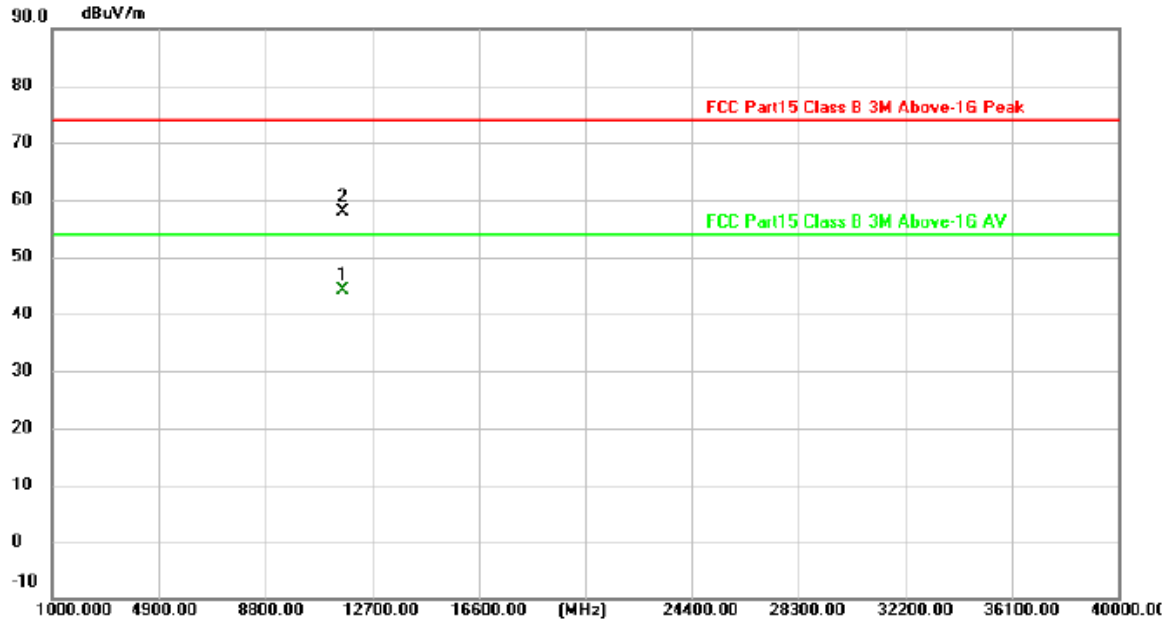
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11569.418	34.53	10.51	45.04	54.00	-8.96	AVG
2	11569.626	47.95	10.51	58.46	74.00	-15.54	peak

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 802.11ax(HE20) Mode 5825MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



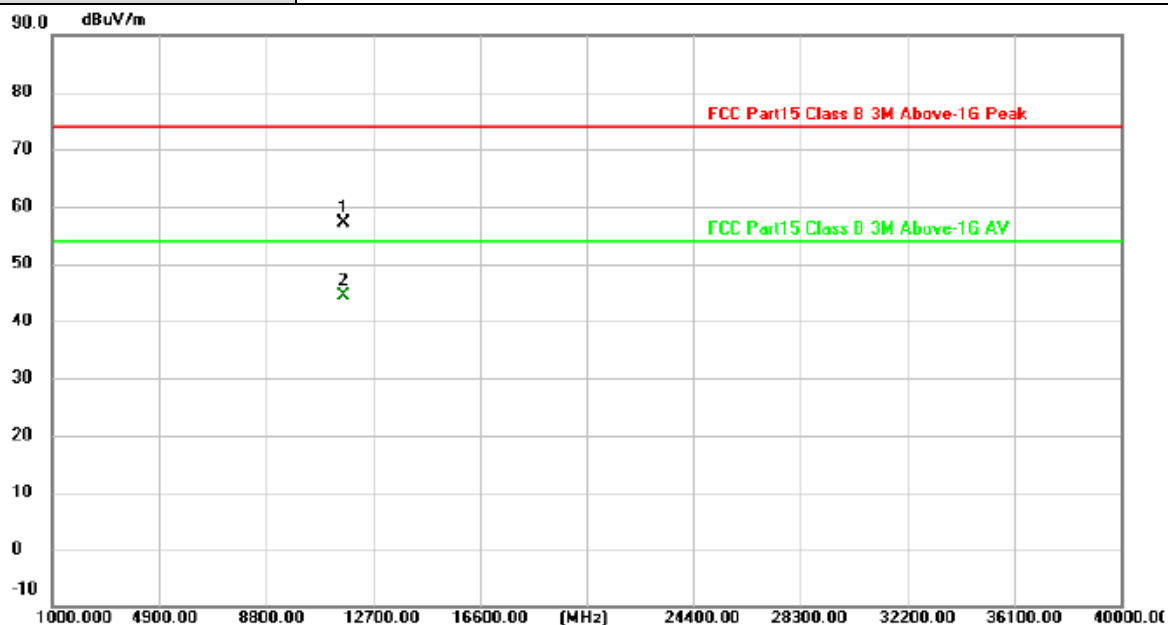
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11649.606	33.93	10.25	44.18	54.00	-9.82	AVG
2	11649.706	47.75	10.25	58.00	74.00	-16.00	peak

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. 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.



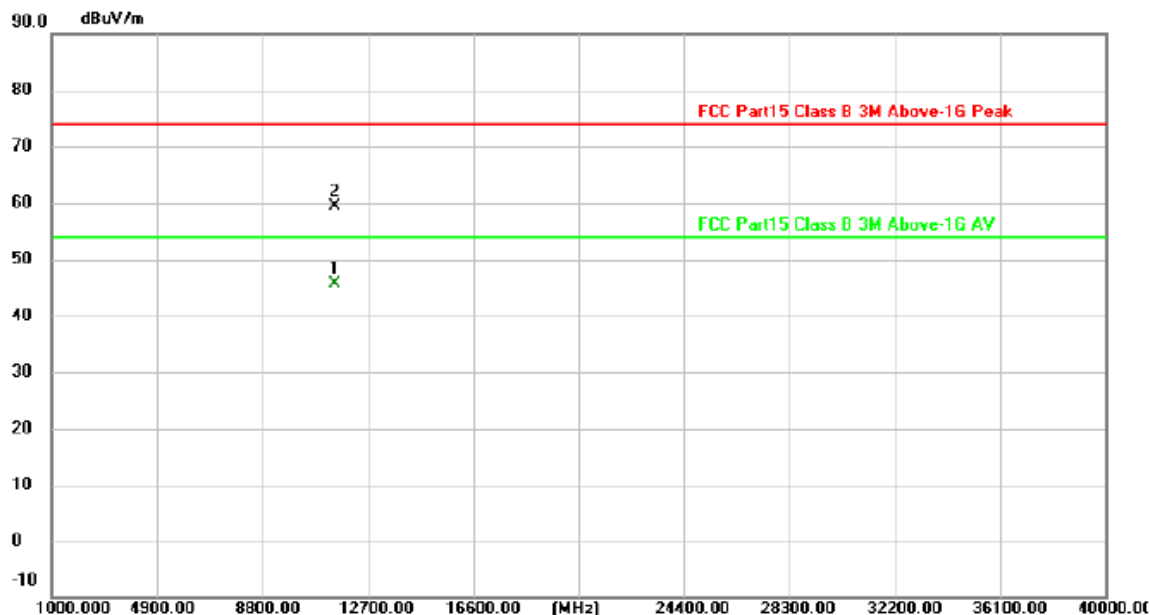
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11649.574	46.83	10.25	57.08	74.00	-16.92	peak
2 *	11650.590	34.06	10.25	44.31	54.00	-9.69	AVG

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 802.11ax(HE40) Mode 5755MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



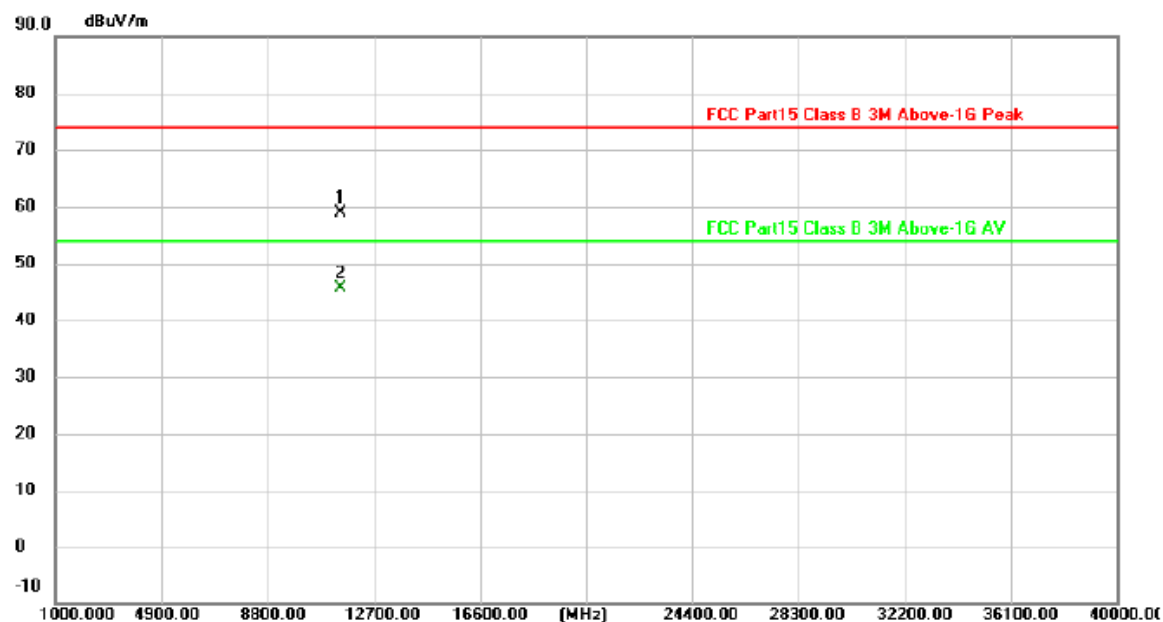
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11510.820	34.95	10.62	45.57	54.00	-8.43	AVG
2	11510.858	48.73	10.62	59.35	74.00	-14.65	peak

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 802.11ax(HE40) Mode 5755MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



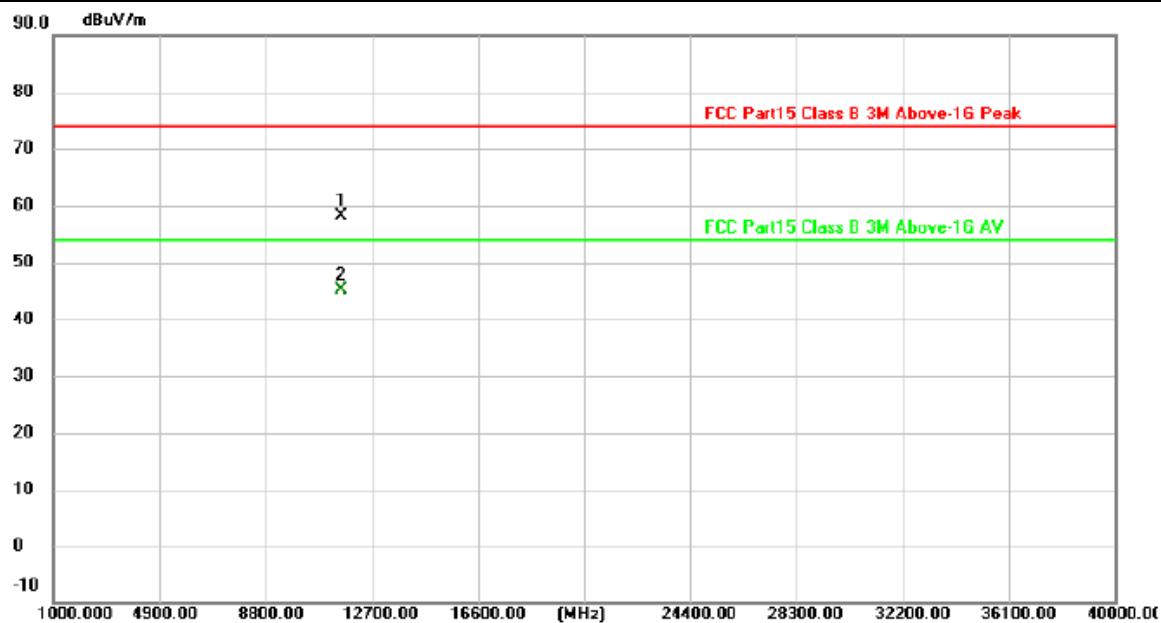
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11509.448	48.17	10.62	58.79	74.00	-15.21	peak
2 *	11509.778	34.94	10.62	45.56	54.00	-8.44	AVG

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. 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.



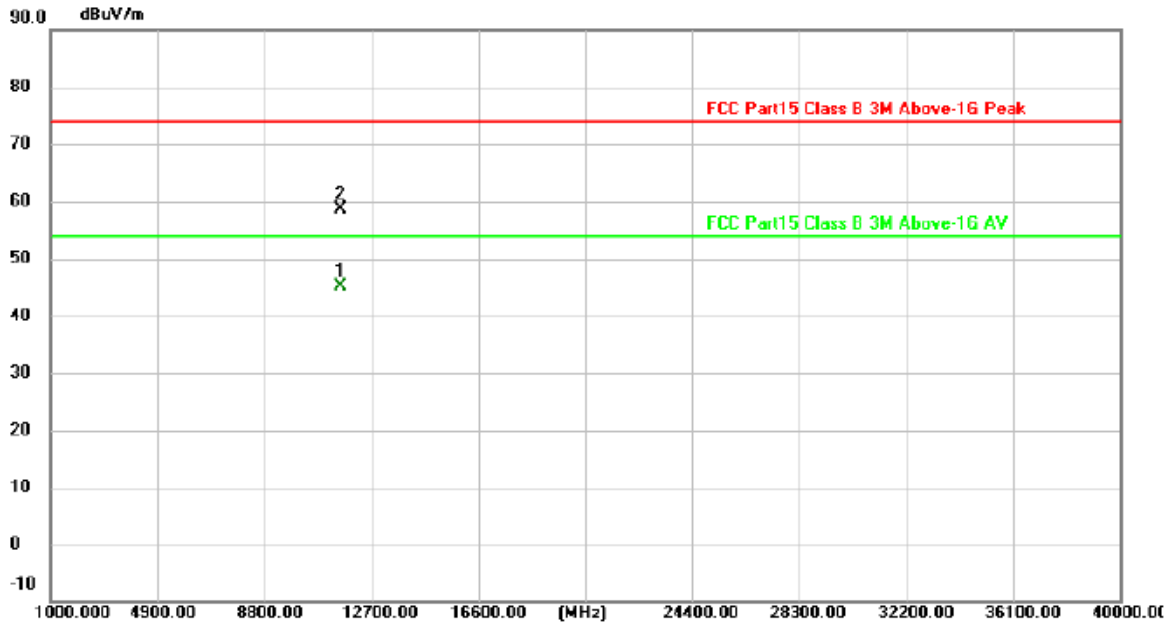
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11589.230	47.72	10.46	58.18	74.00	-15.82	peak
2 *	11589.682	34.59	10.46	45.05	54.00	-8.95	AVG

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. 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.



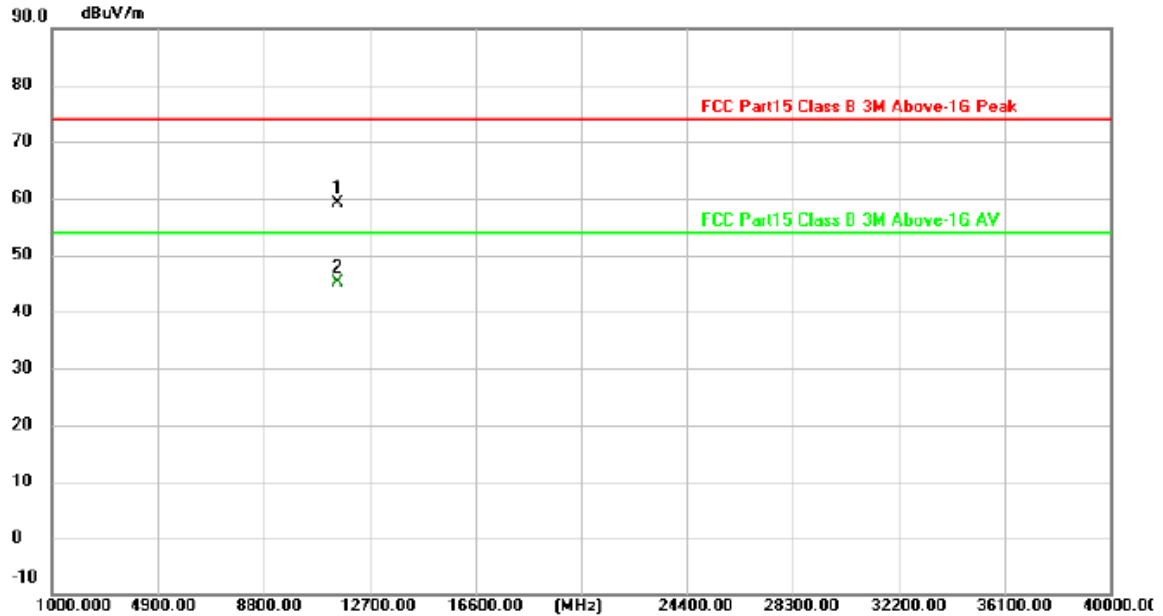
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11589.852	34.55	10.46	45.01	54.00	-8.99	AVG
2	11590.322	48.24	10.46	58.70	74.00	-15.30	peak

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 802.11ax(HE80) Mode 5775MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.



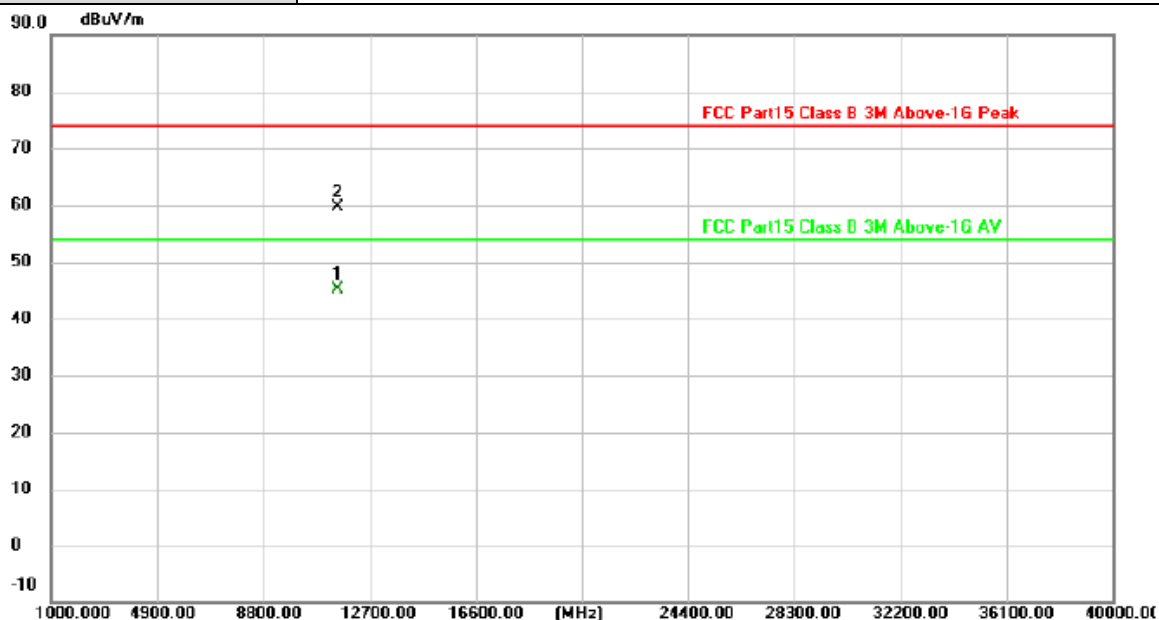
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11549.226	48.70	10.54	59.24	74.00	-14.76	peak
2 *	11550.152	34.56	10.54	45.10	54.00	-8.90	AVG

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 802.11ax(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 *	11550.142	34.65	10.54	45.19	54.00	-8.81	AVG
2	11550.626	49.17	10.54	59.71	74.00	-14.29	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

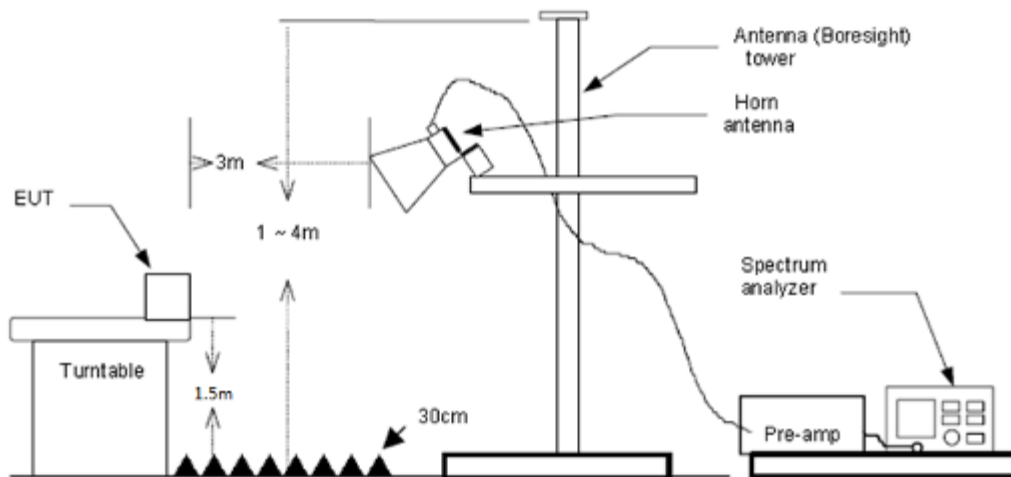
Note:

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 C63.10:2020 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 C63.10:2020 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.

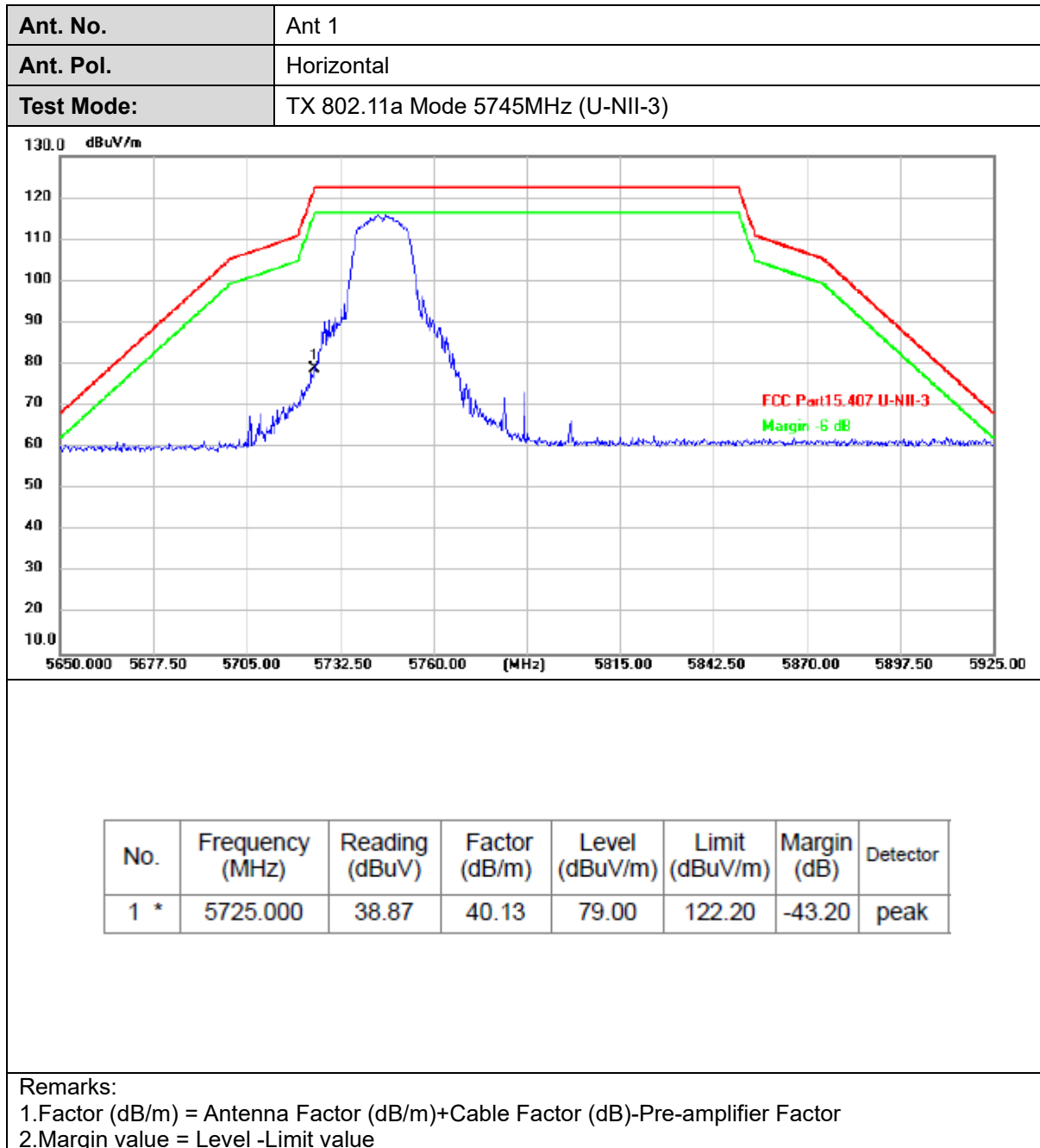
Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause Duty Cycle.

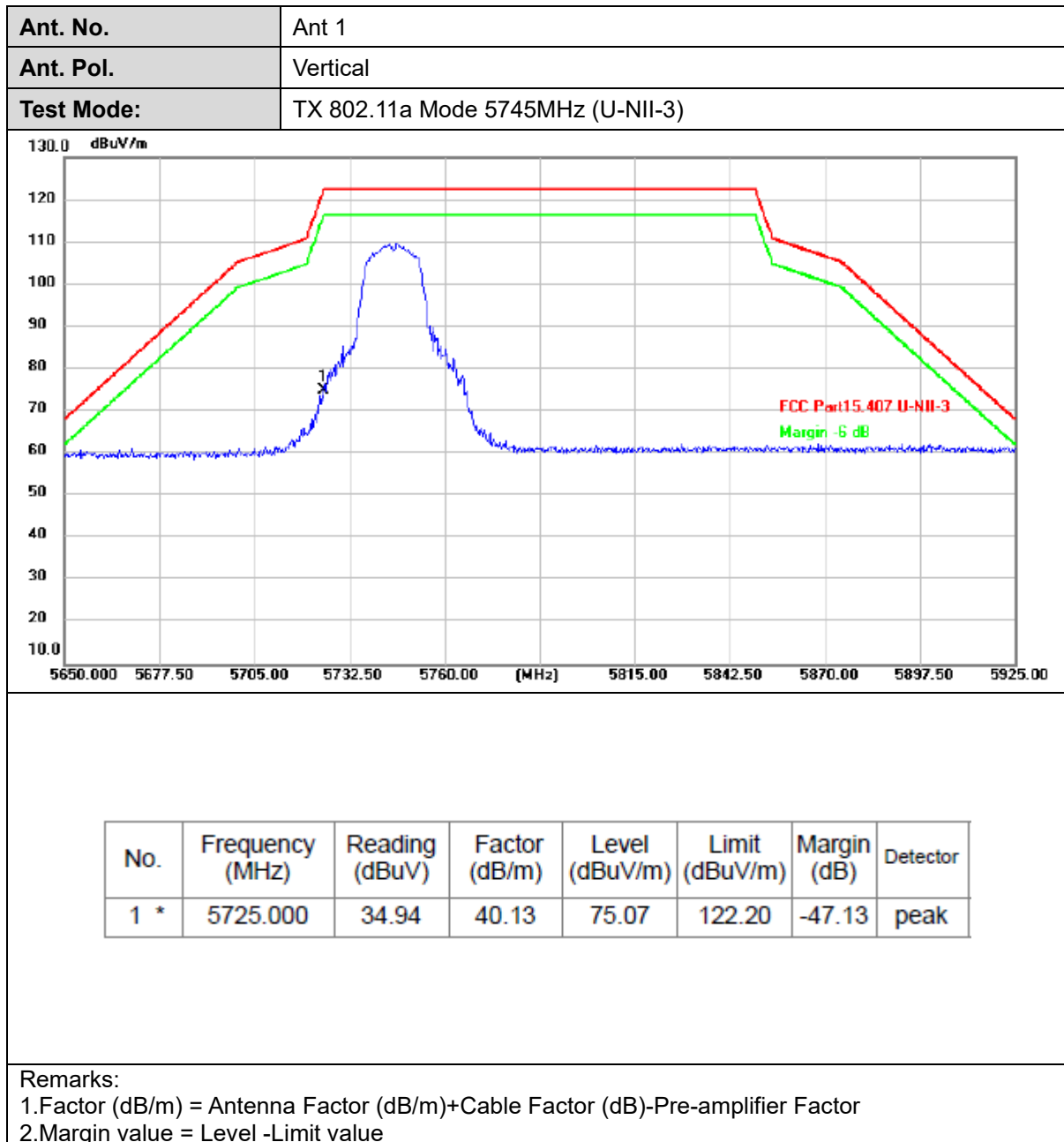
Test Mode

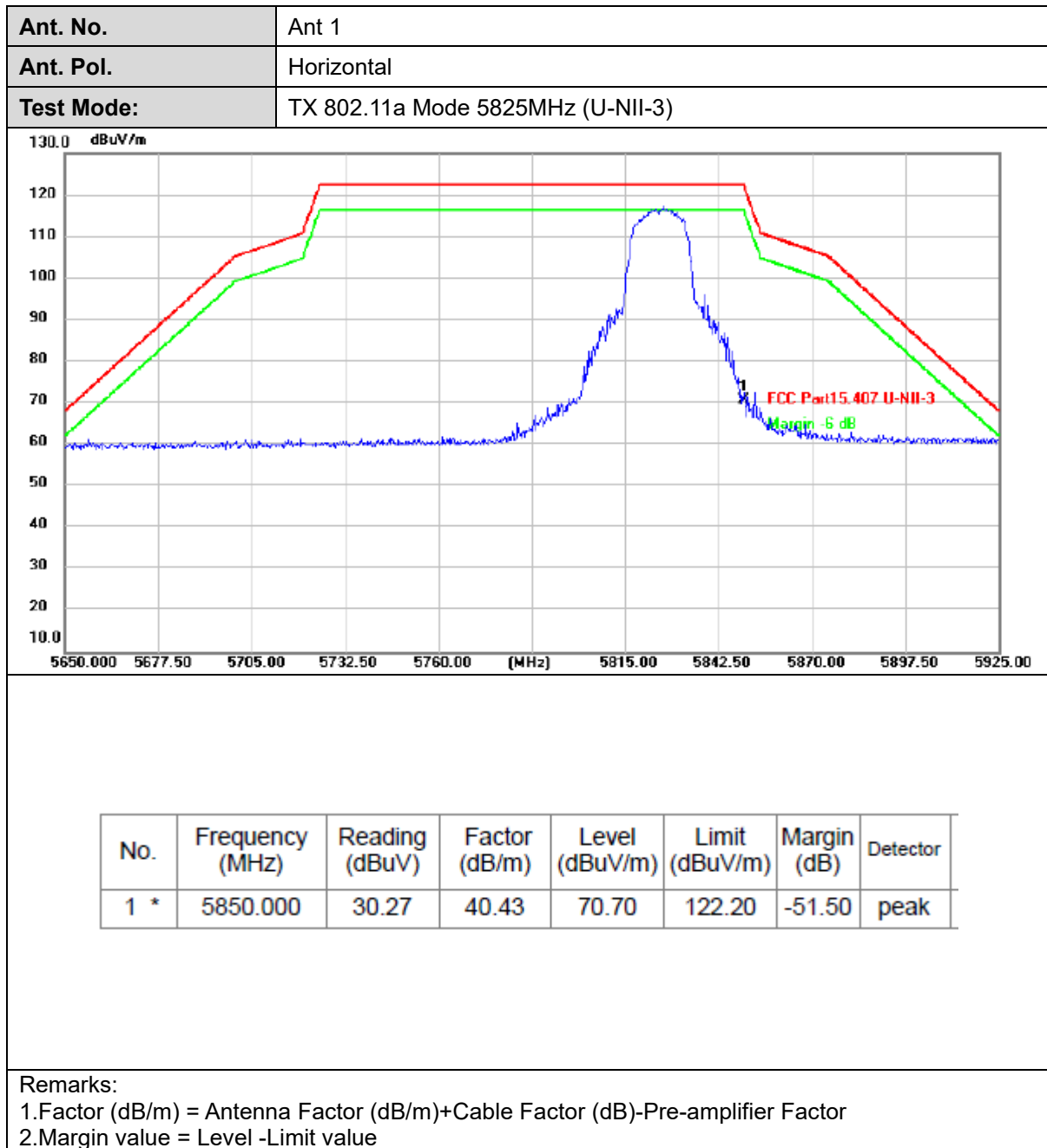
Please refer to the clause 2.4.

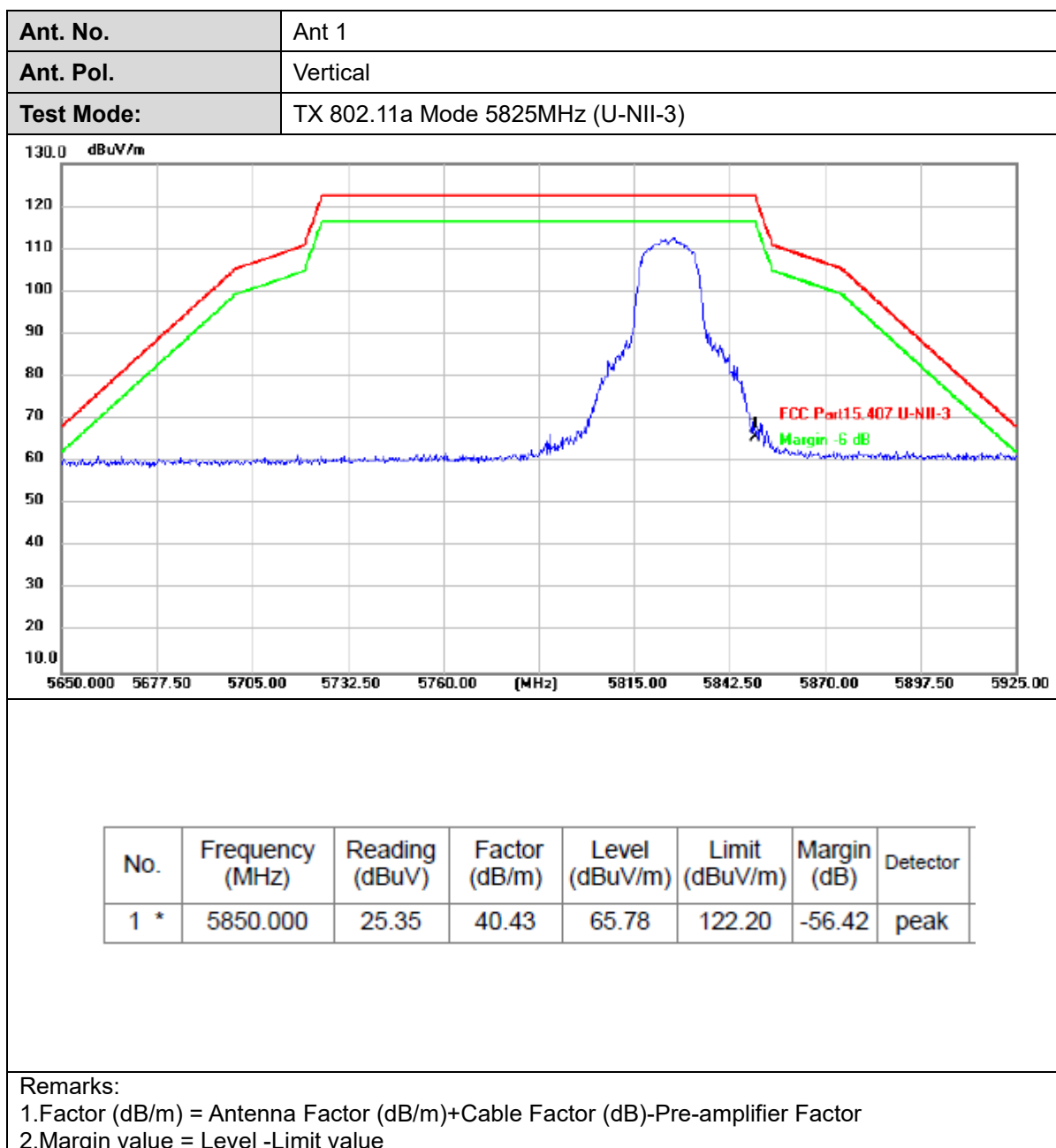
Test Result

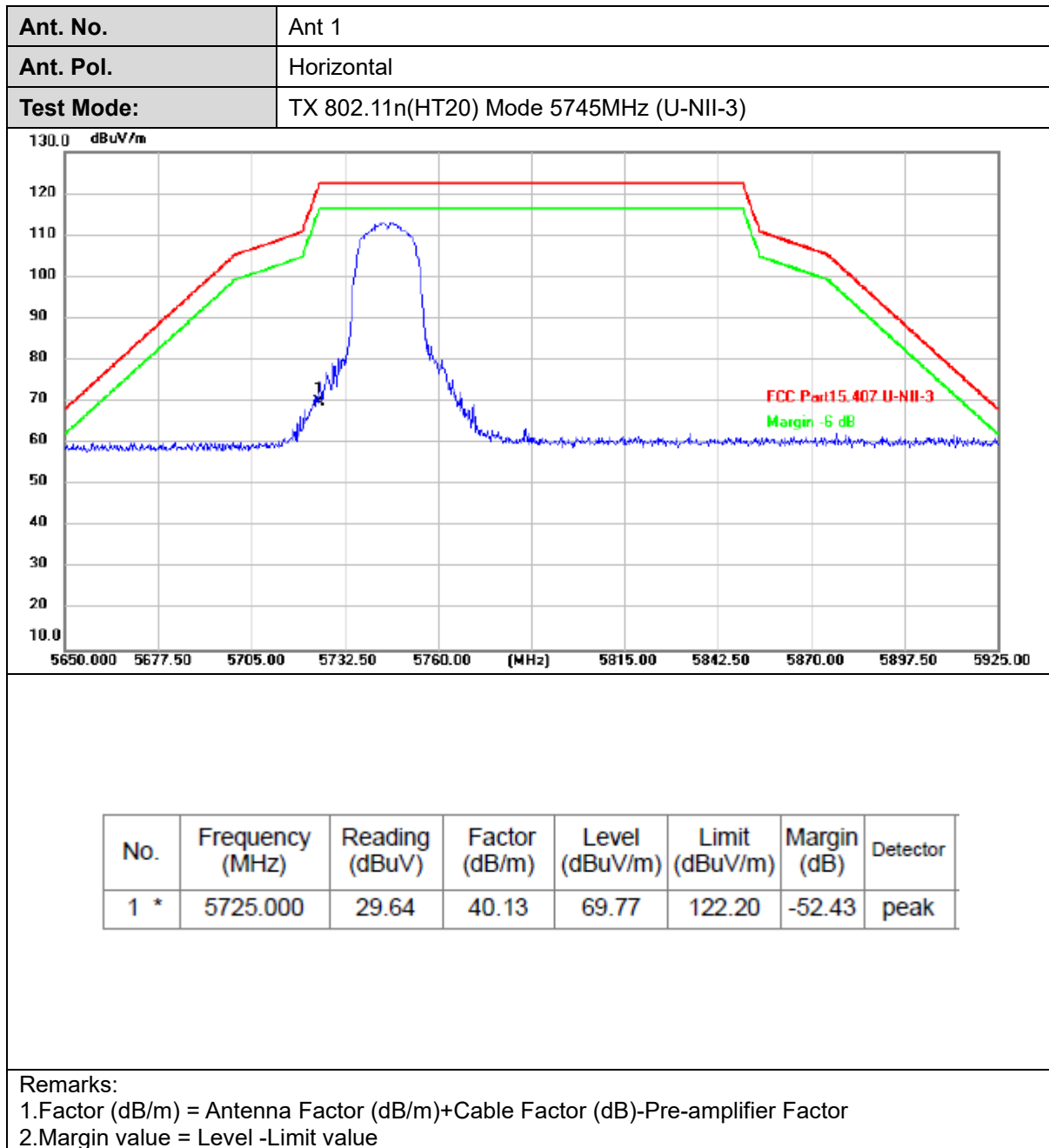
Note: 1. Pre-scan both 4500-5150MHz were investigated, report only shows the test data for worst case.
 2. Pre-scan all antenna, only show the test data for worse case antenna on the test report.

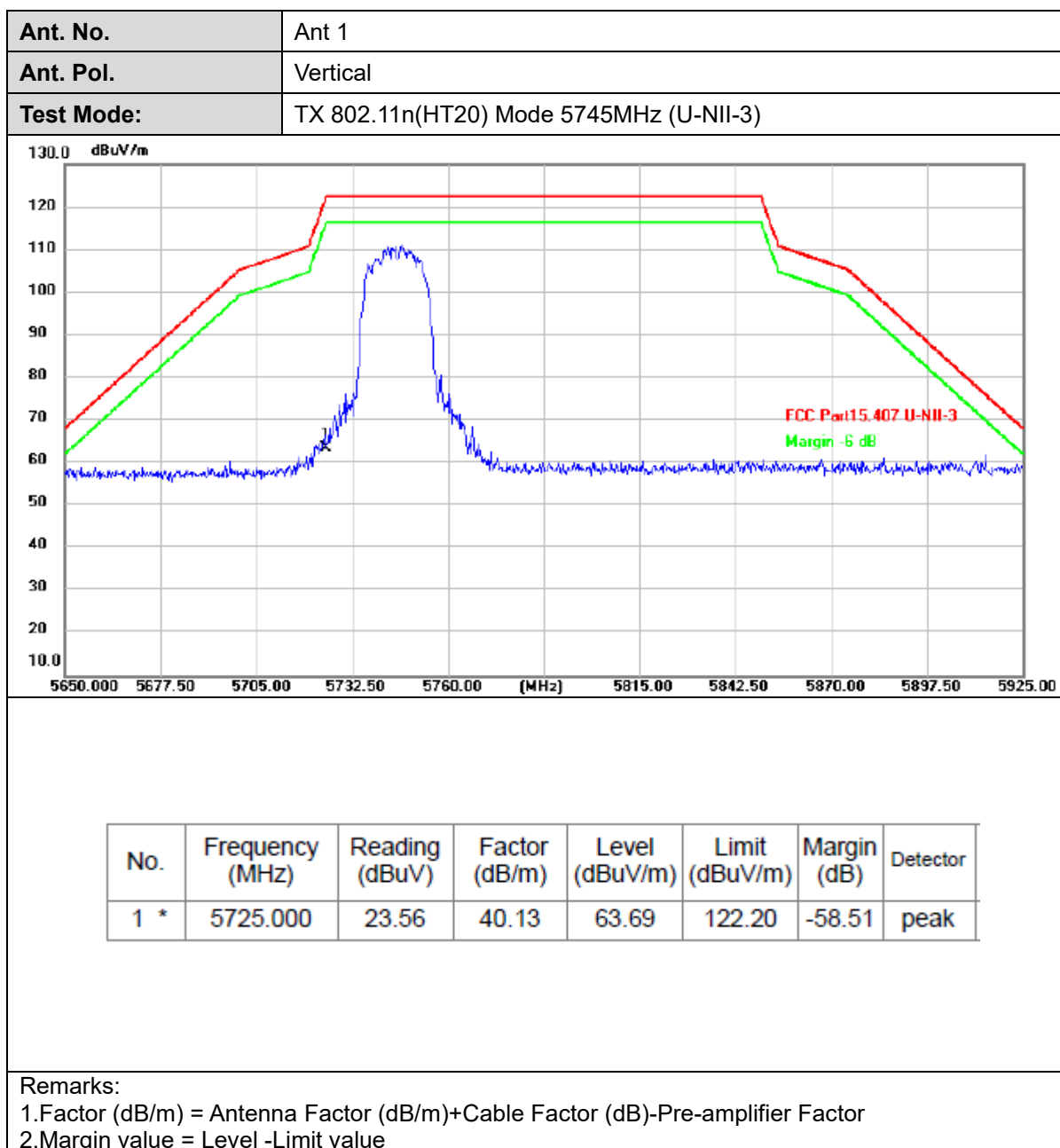


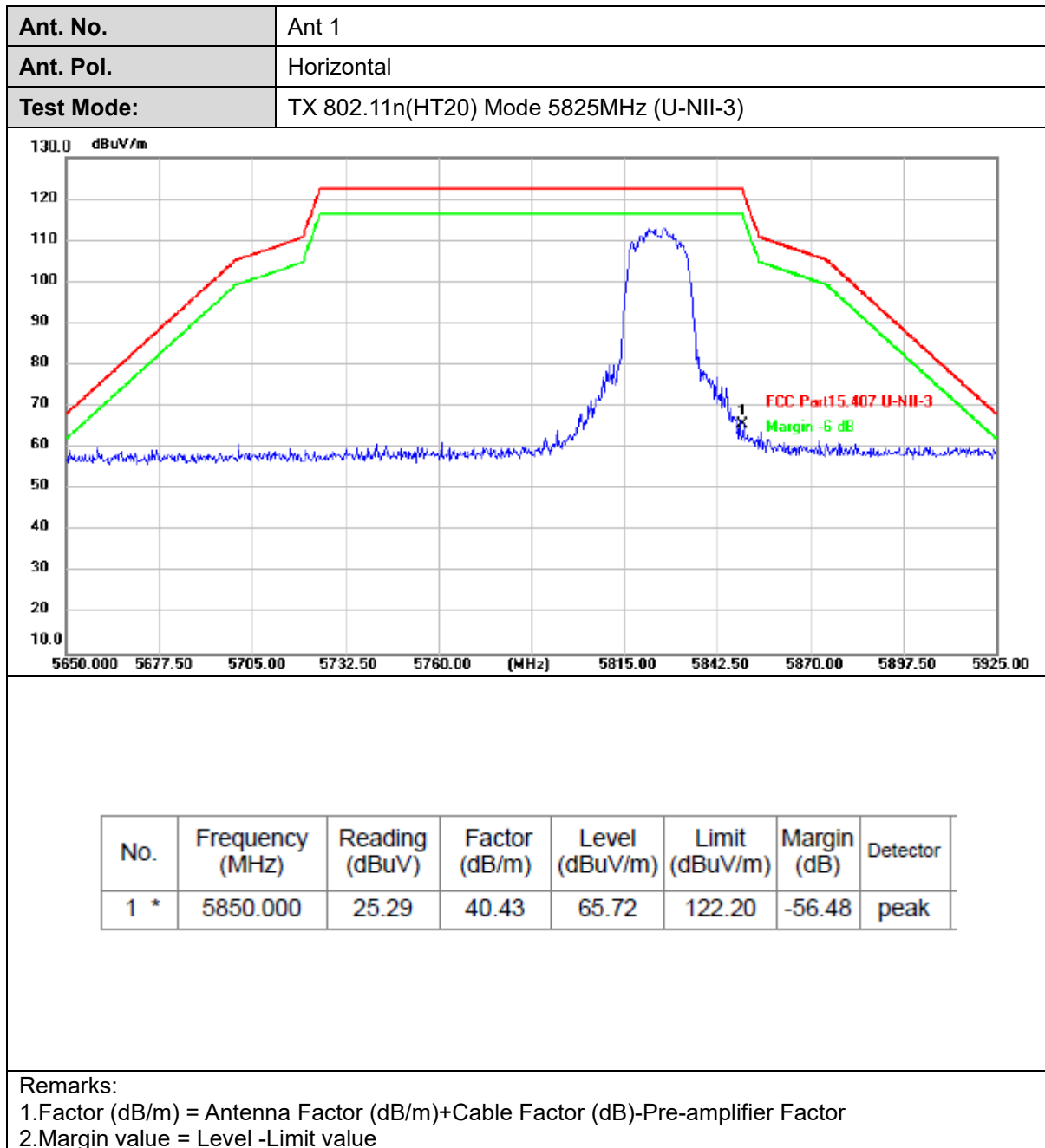


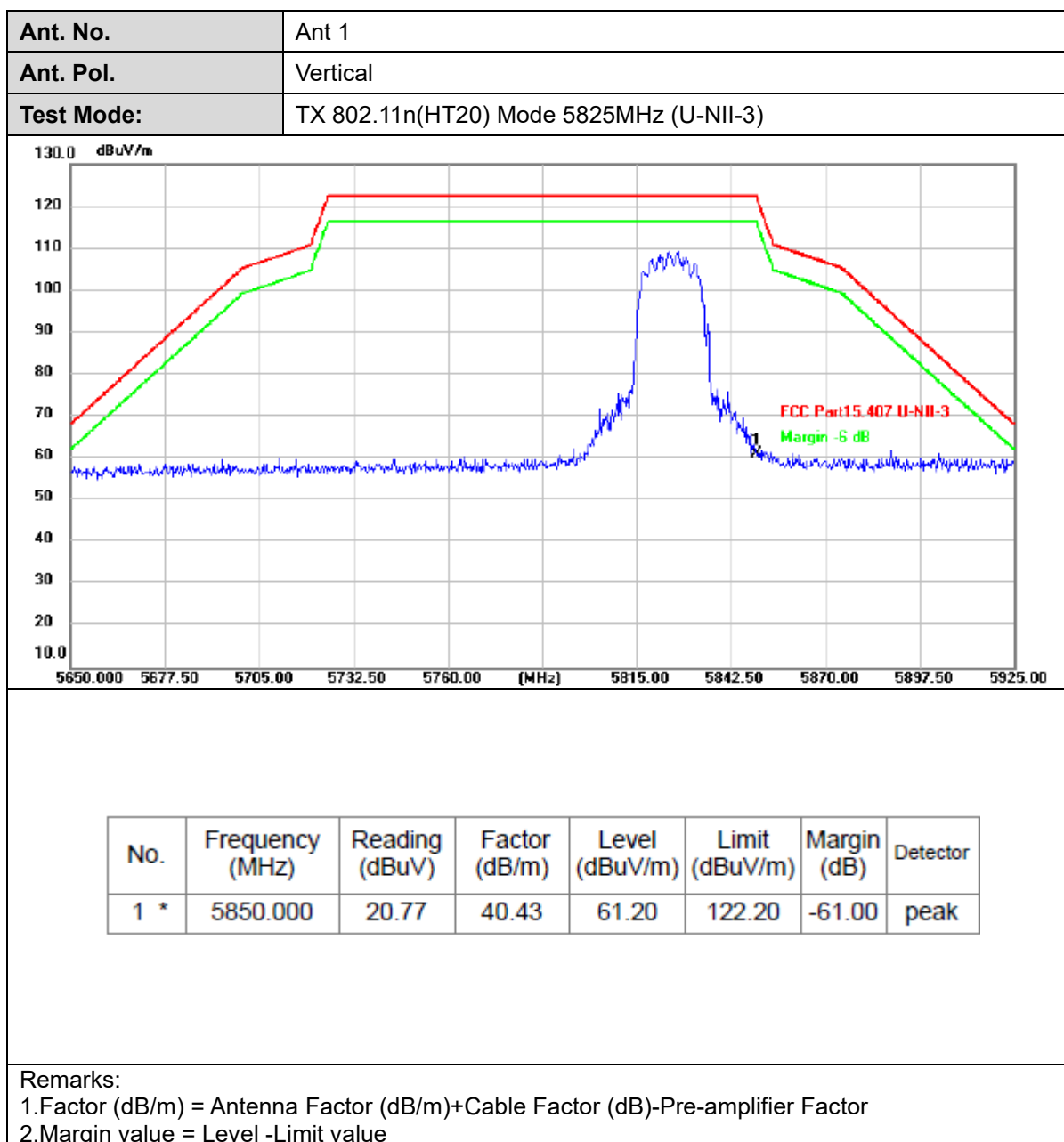


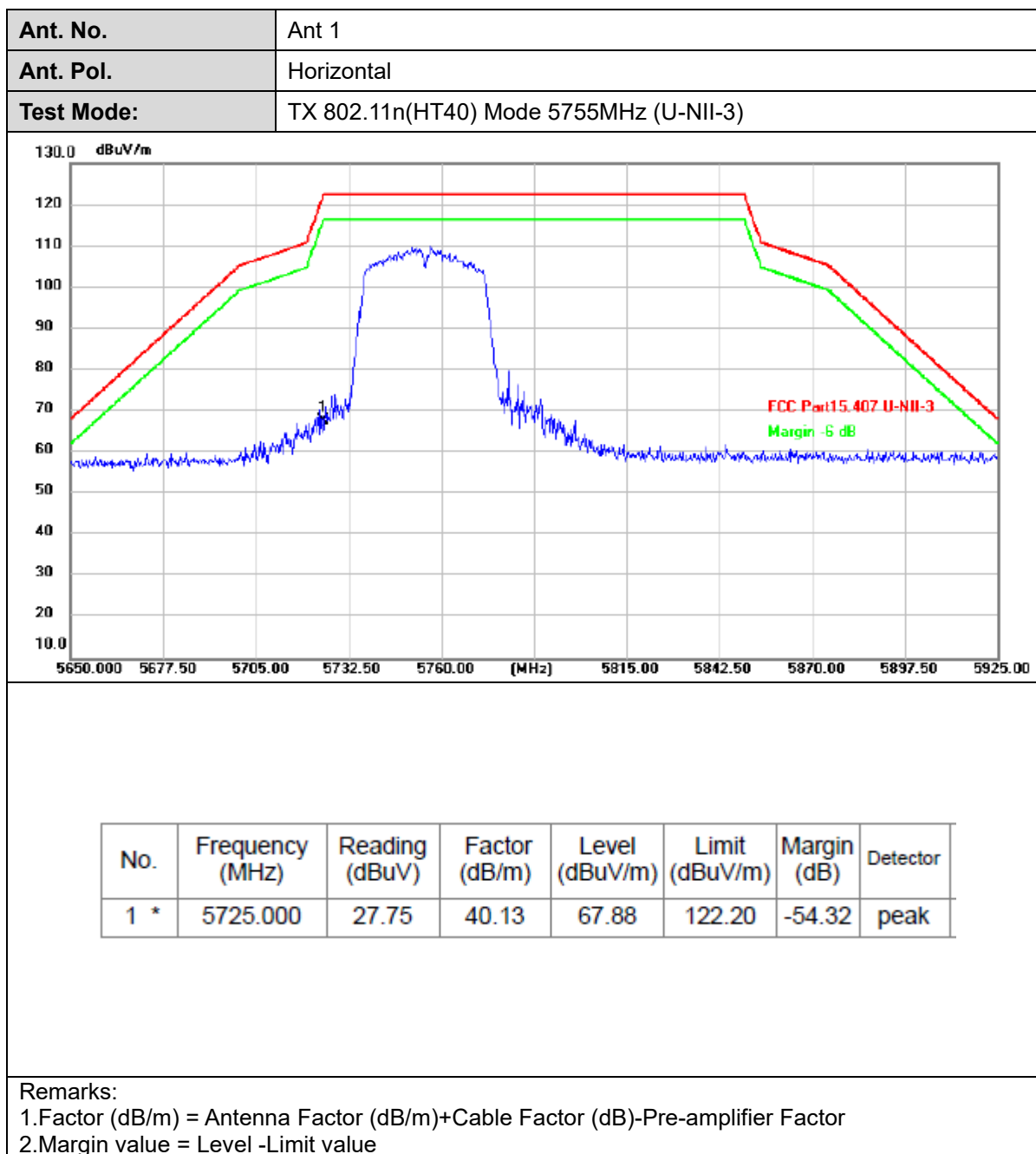


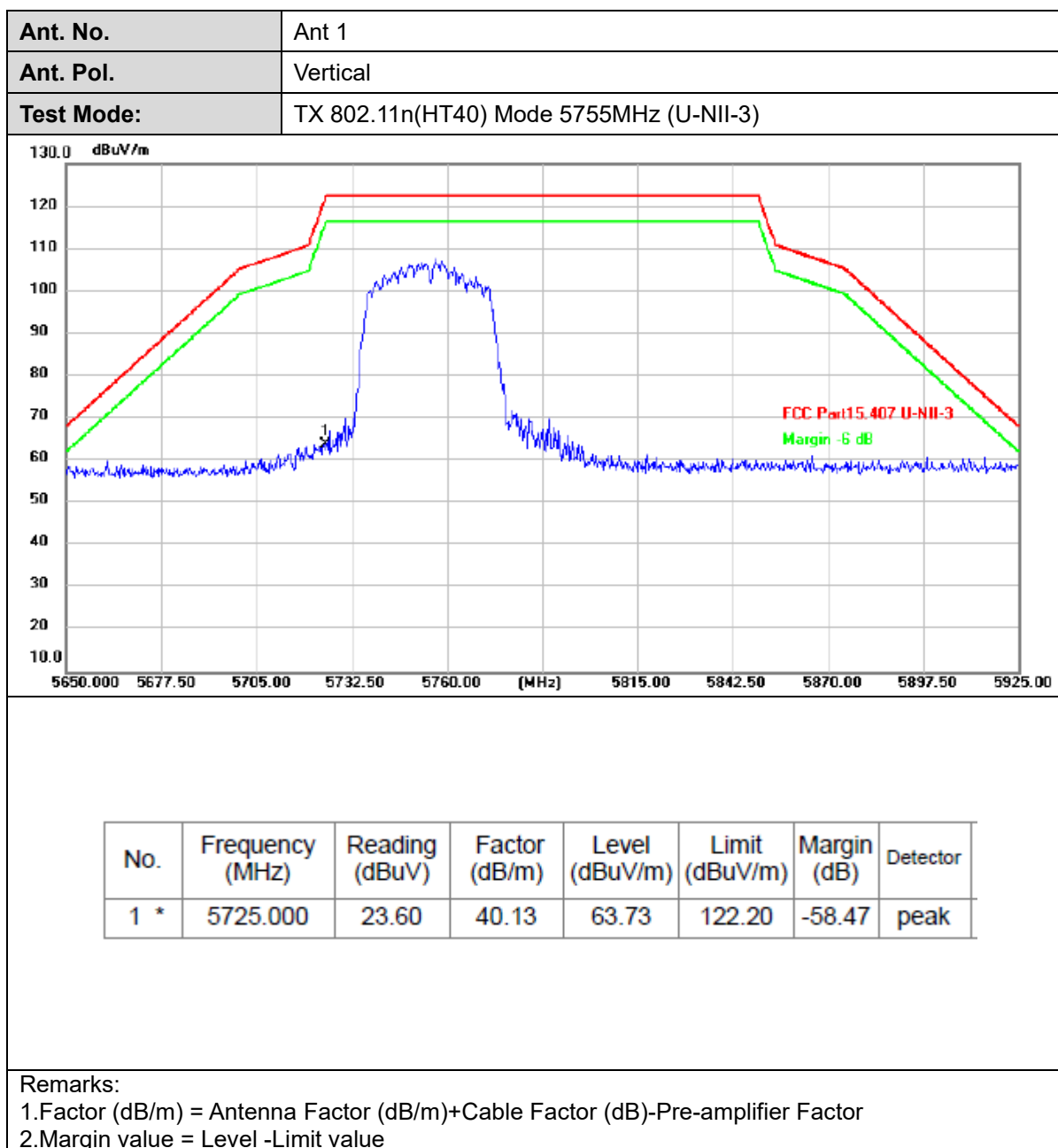


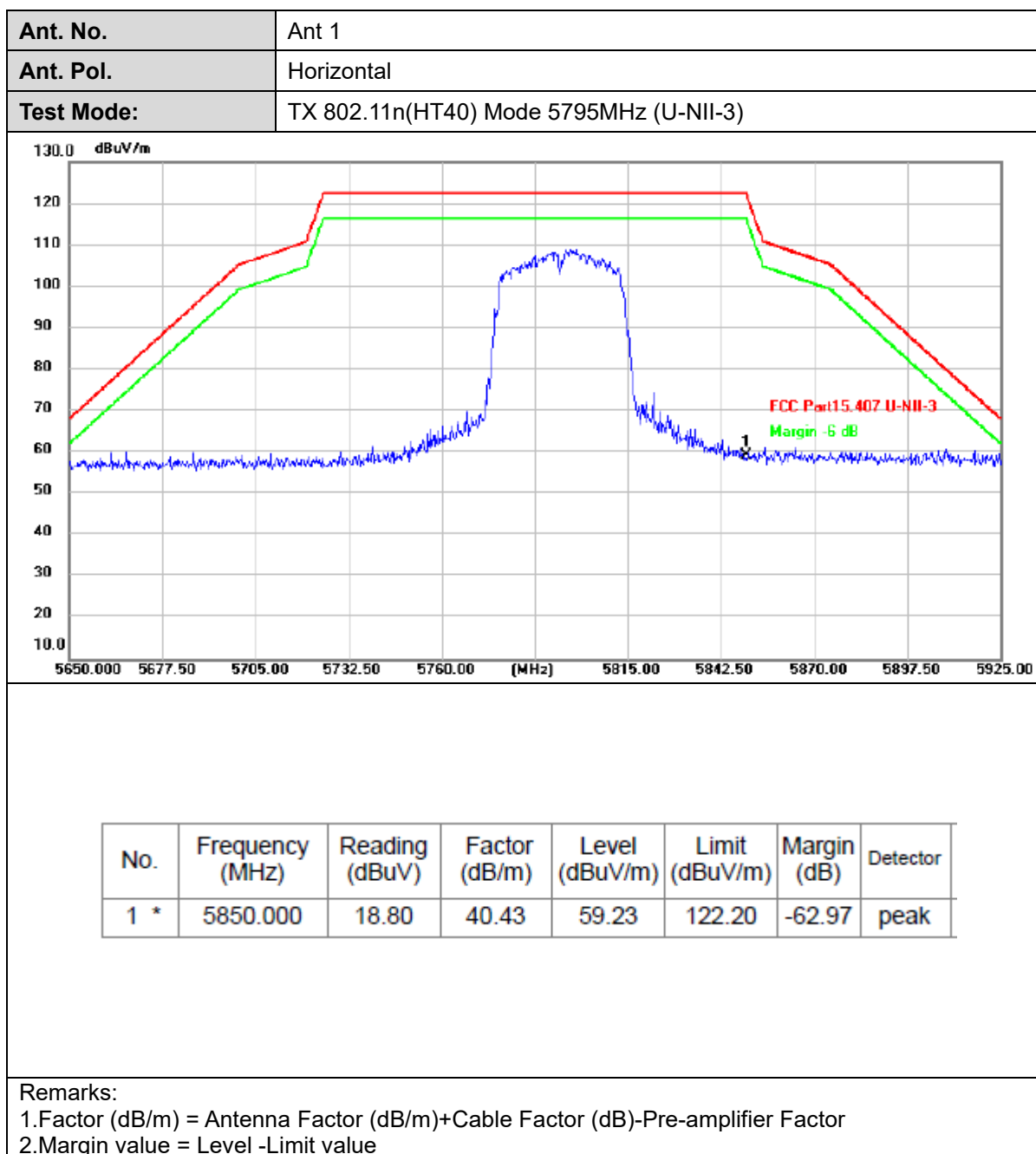


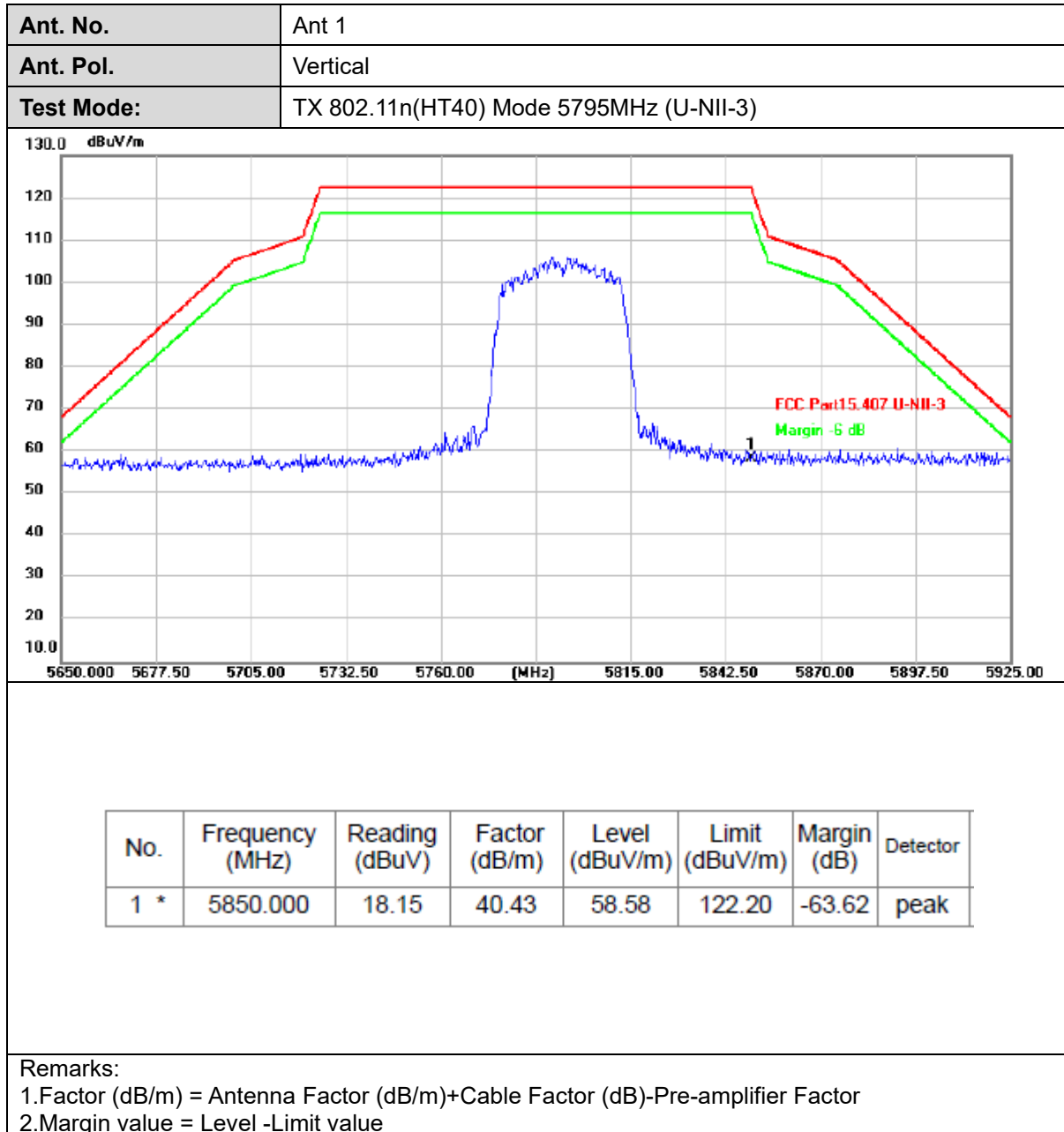


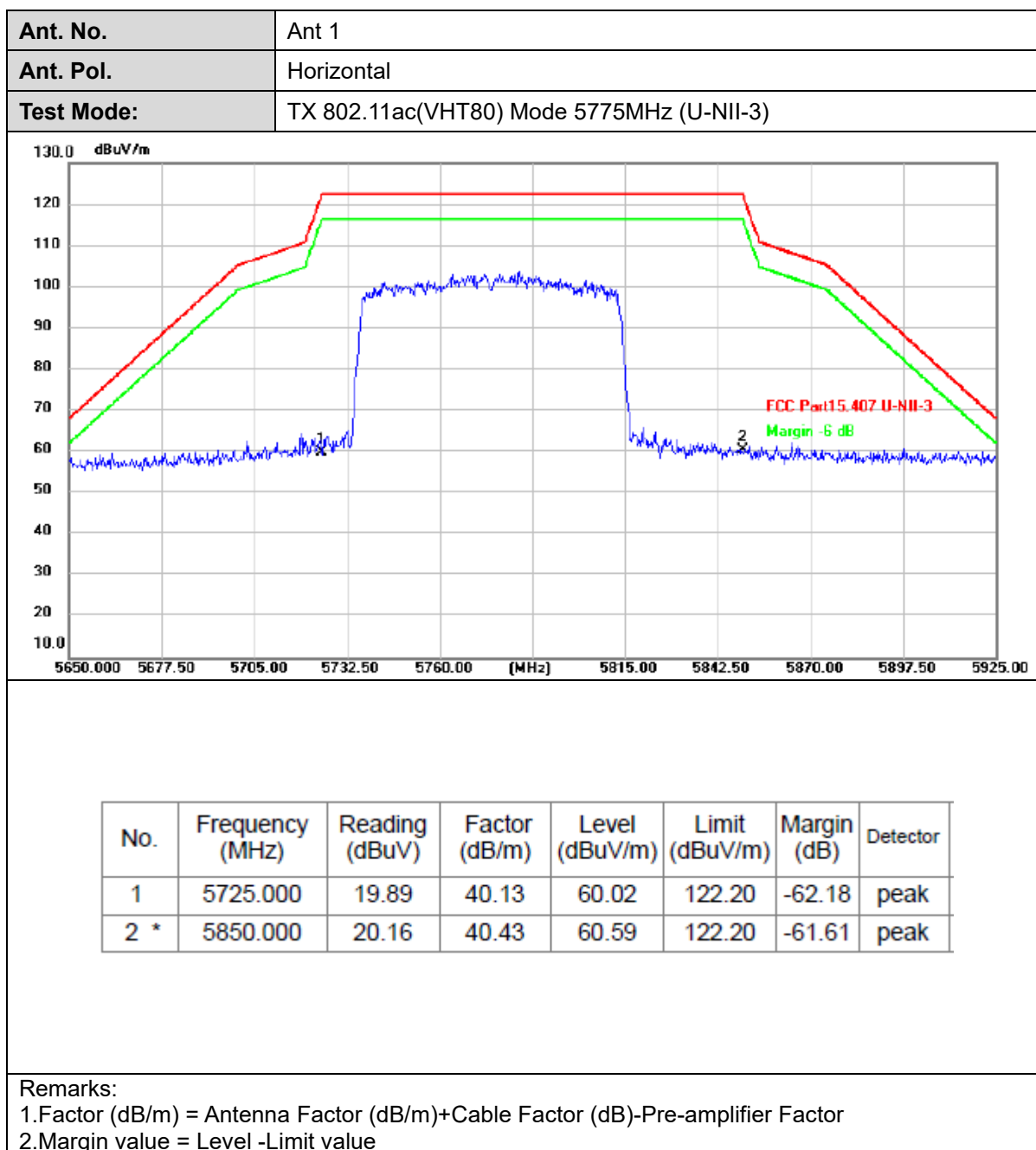


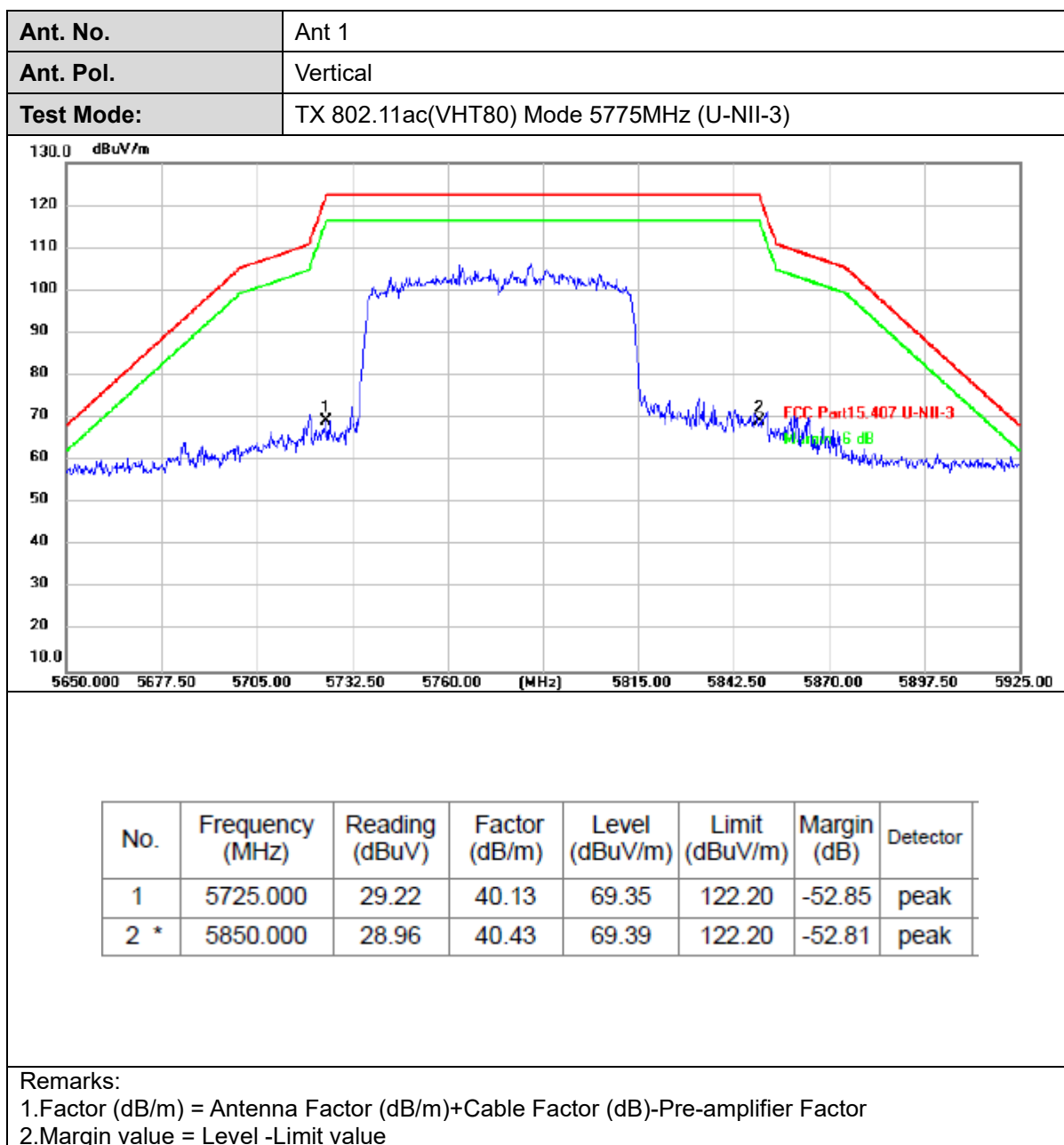


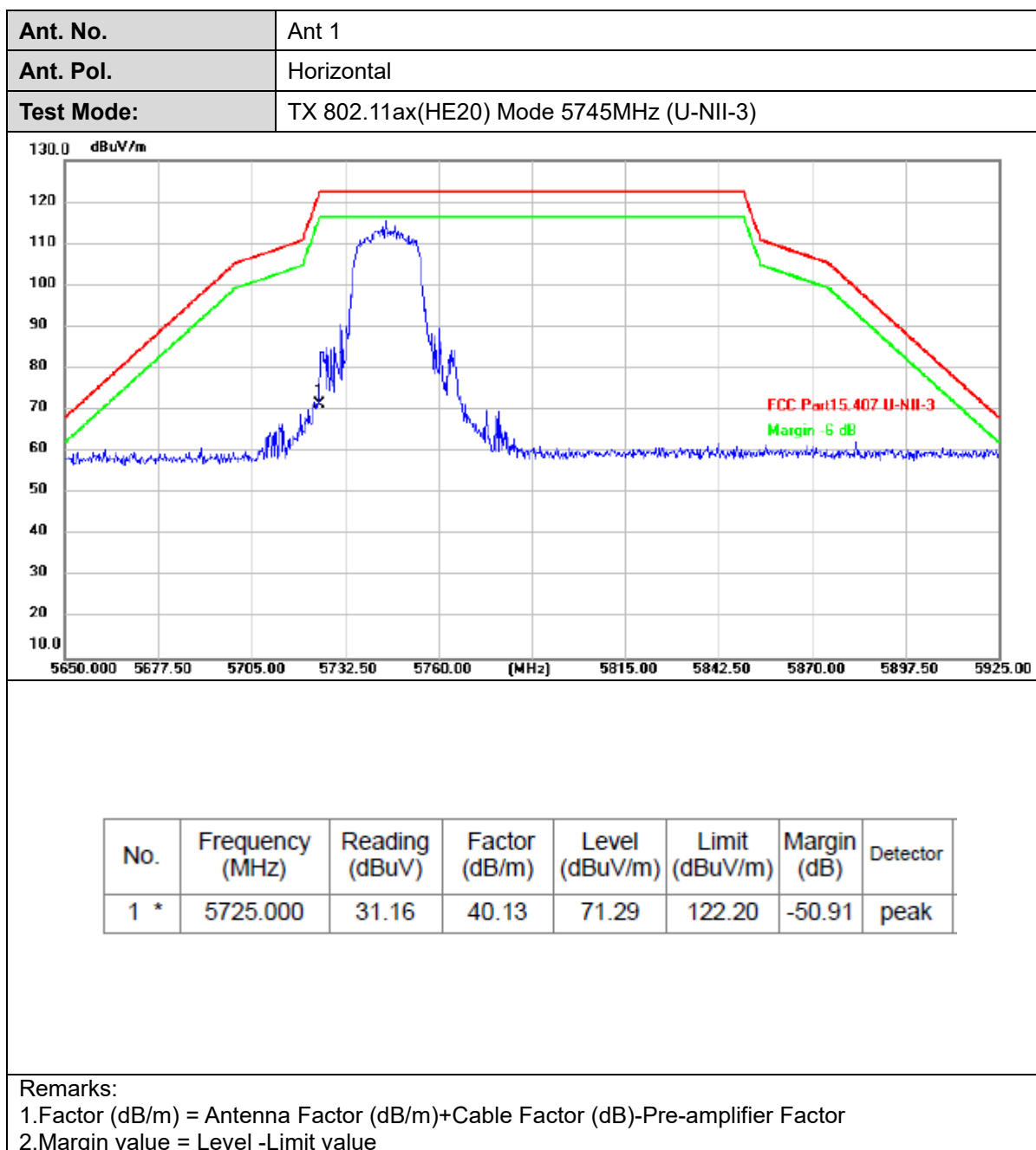


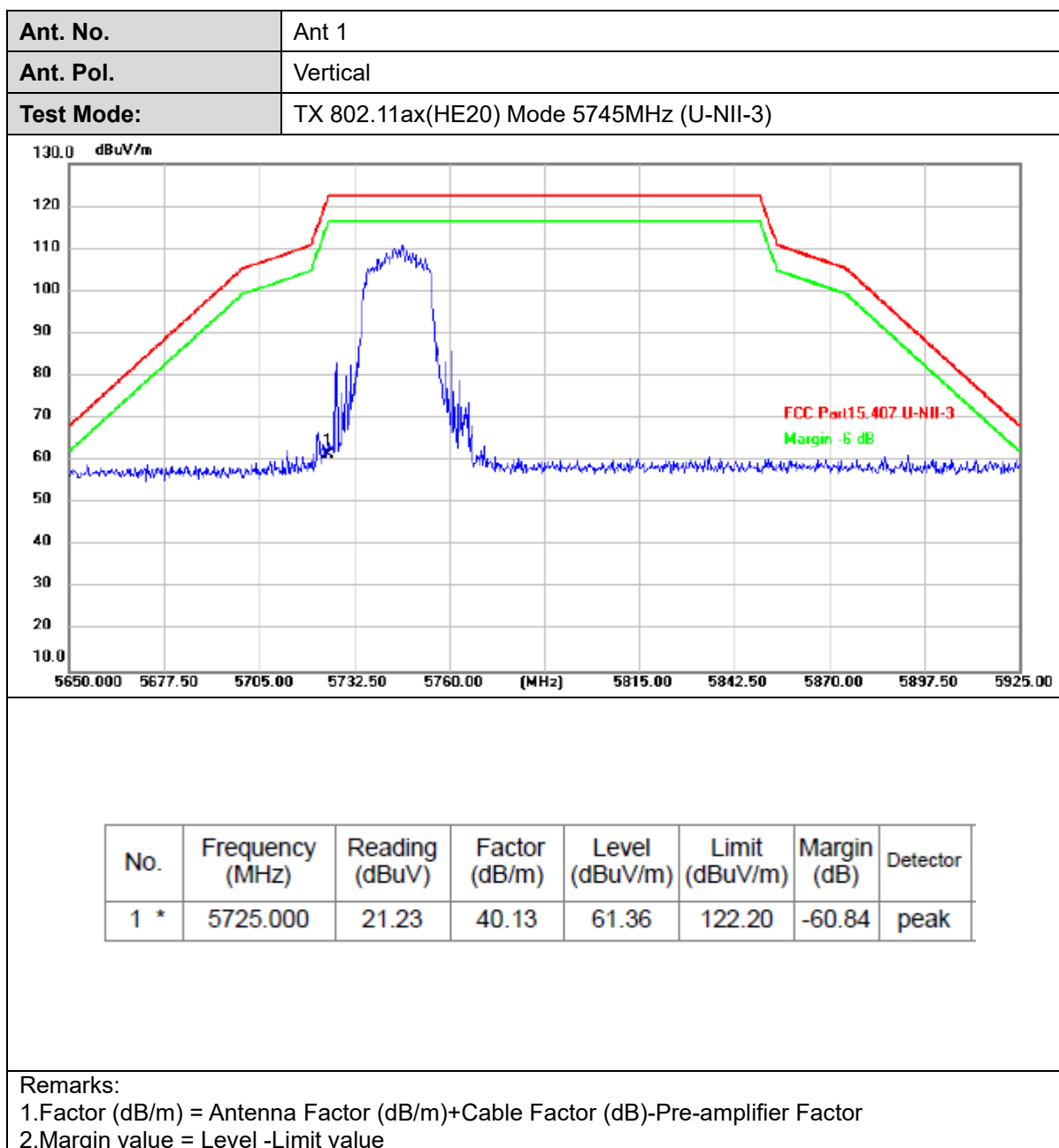


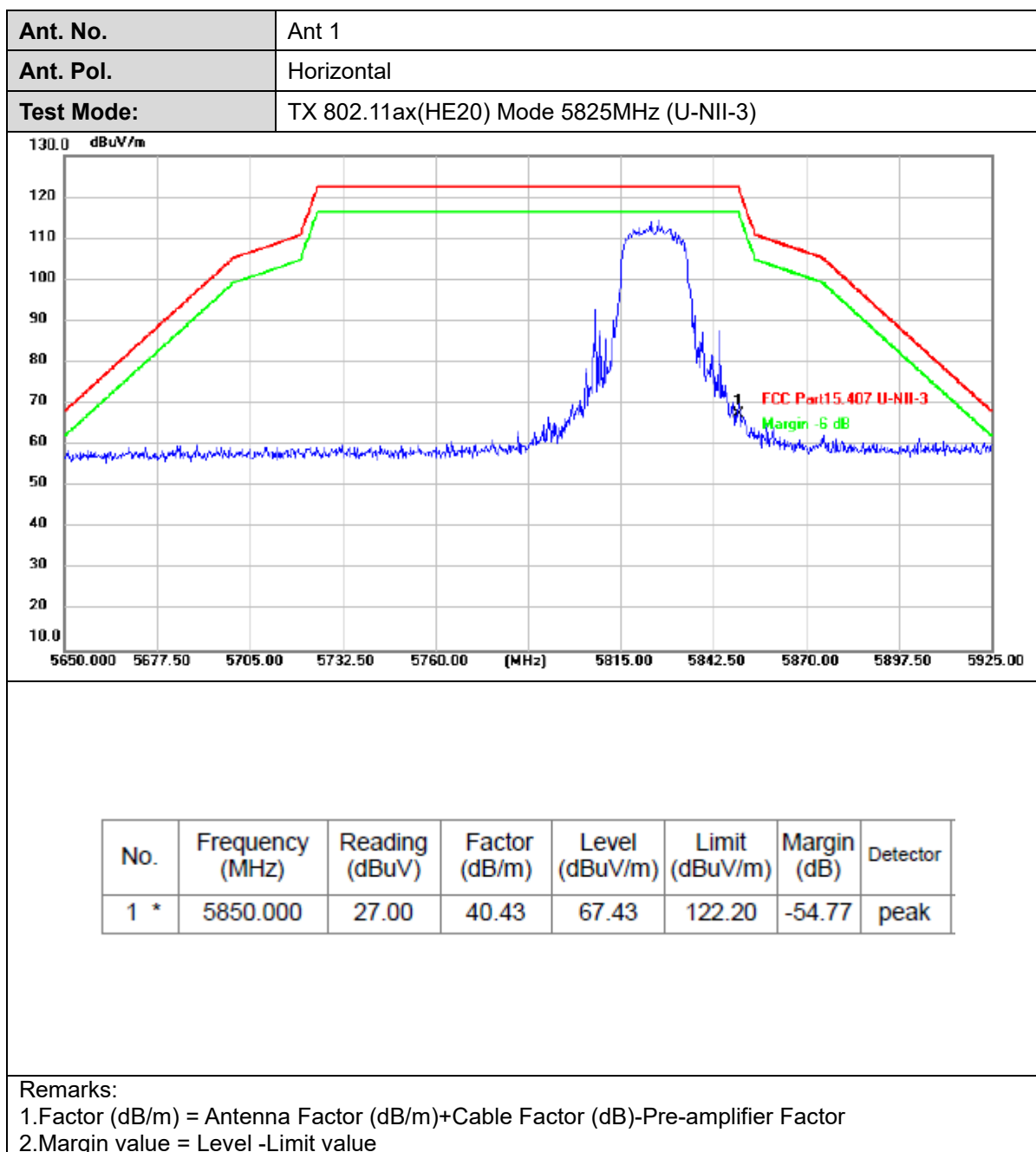


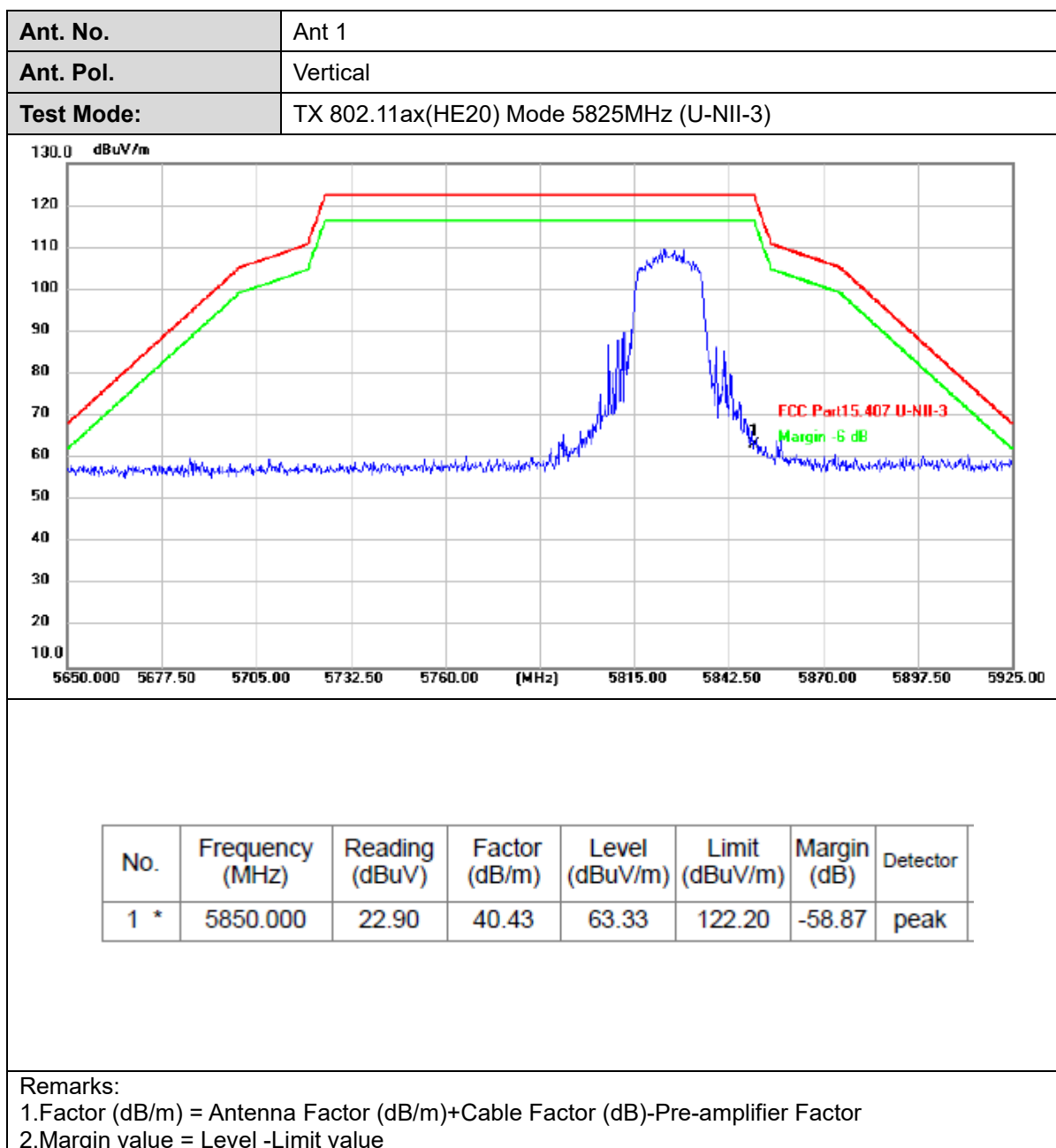


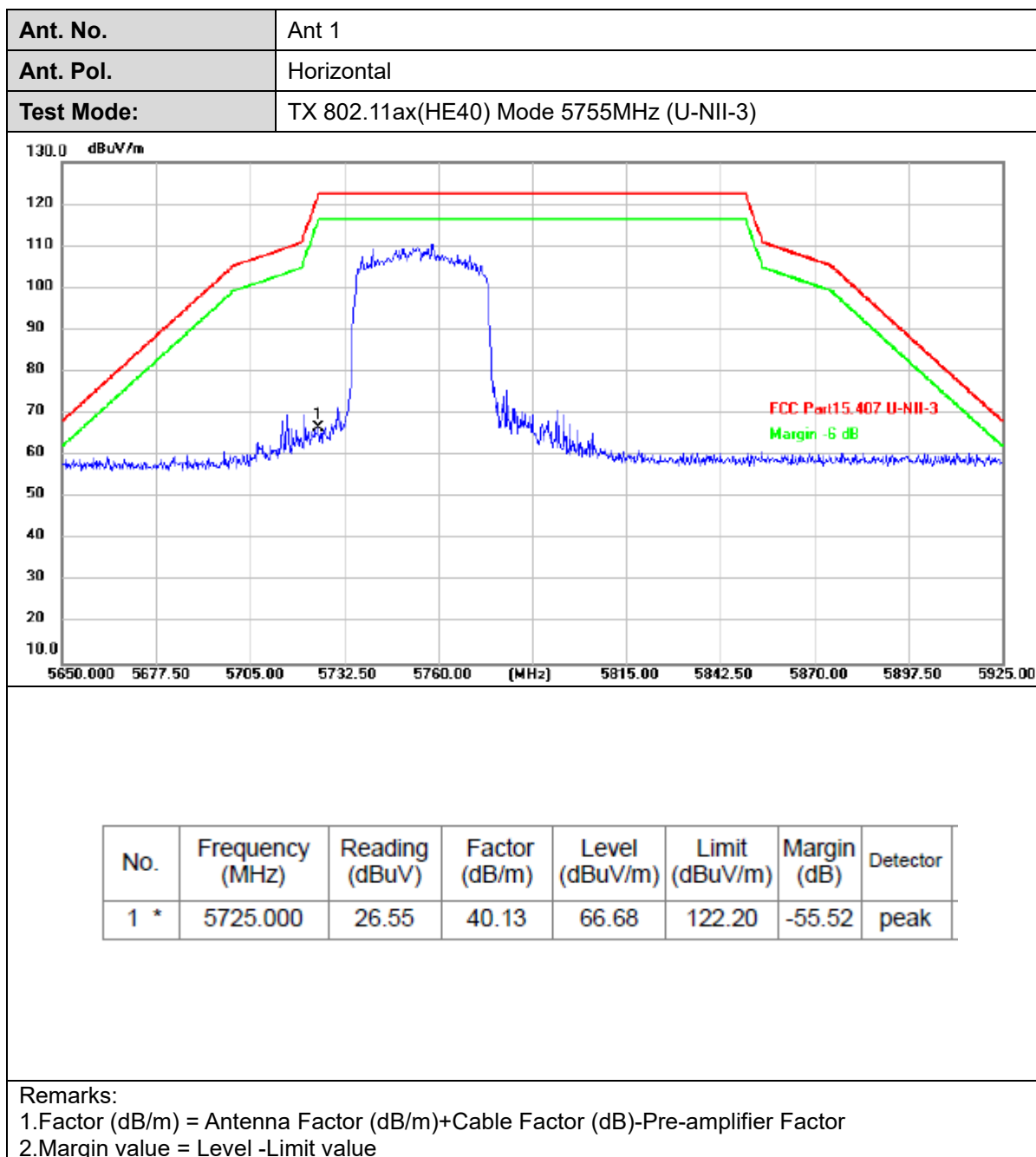


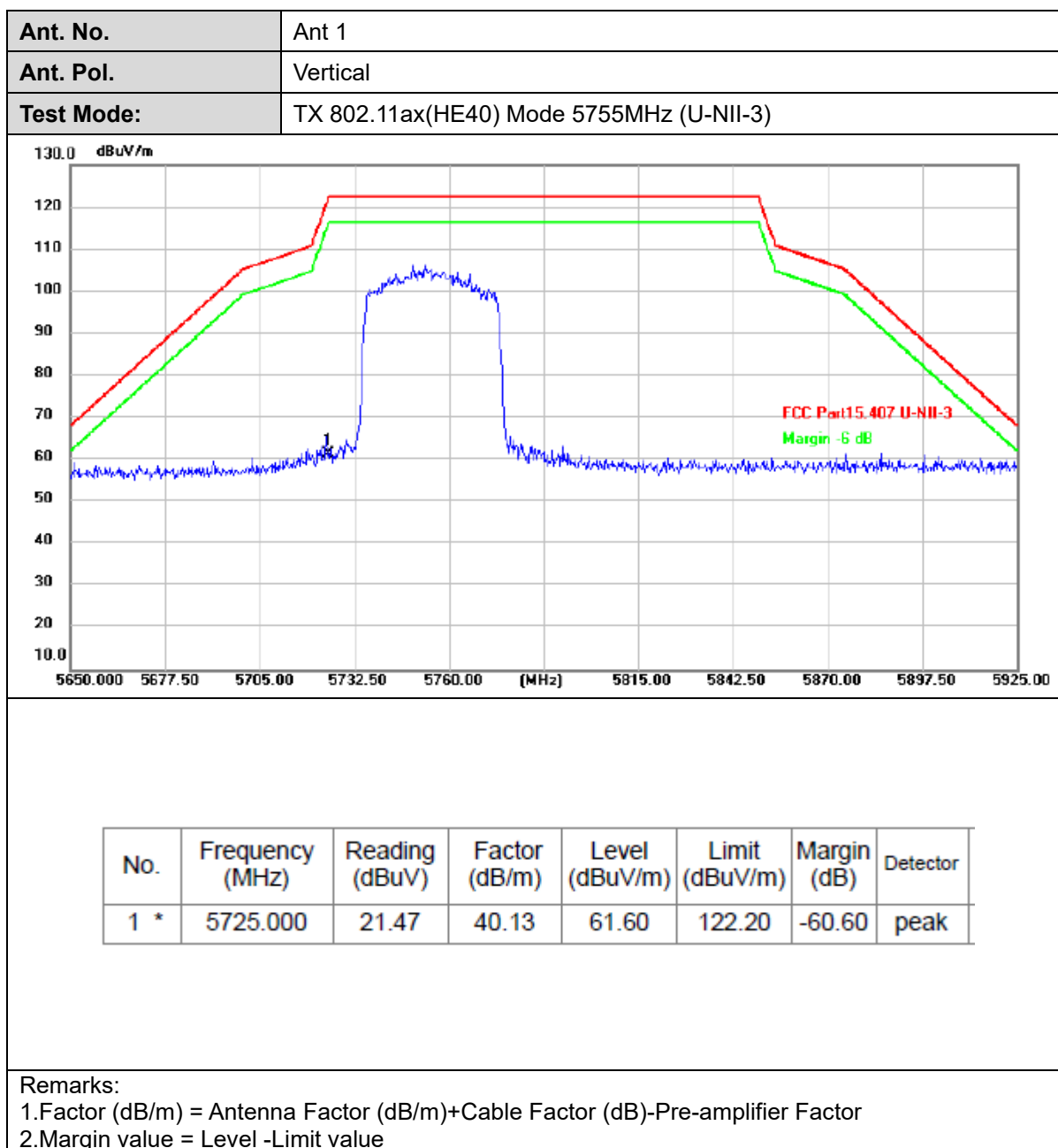


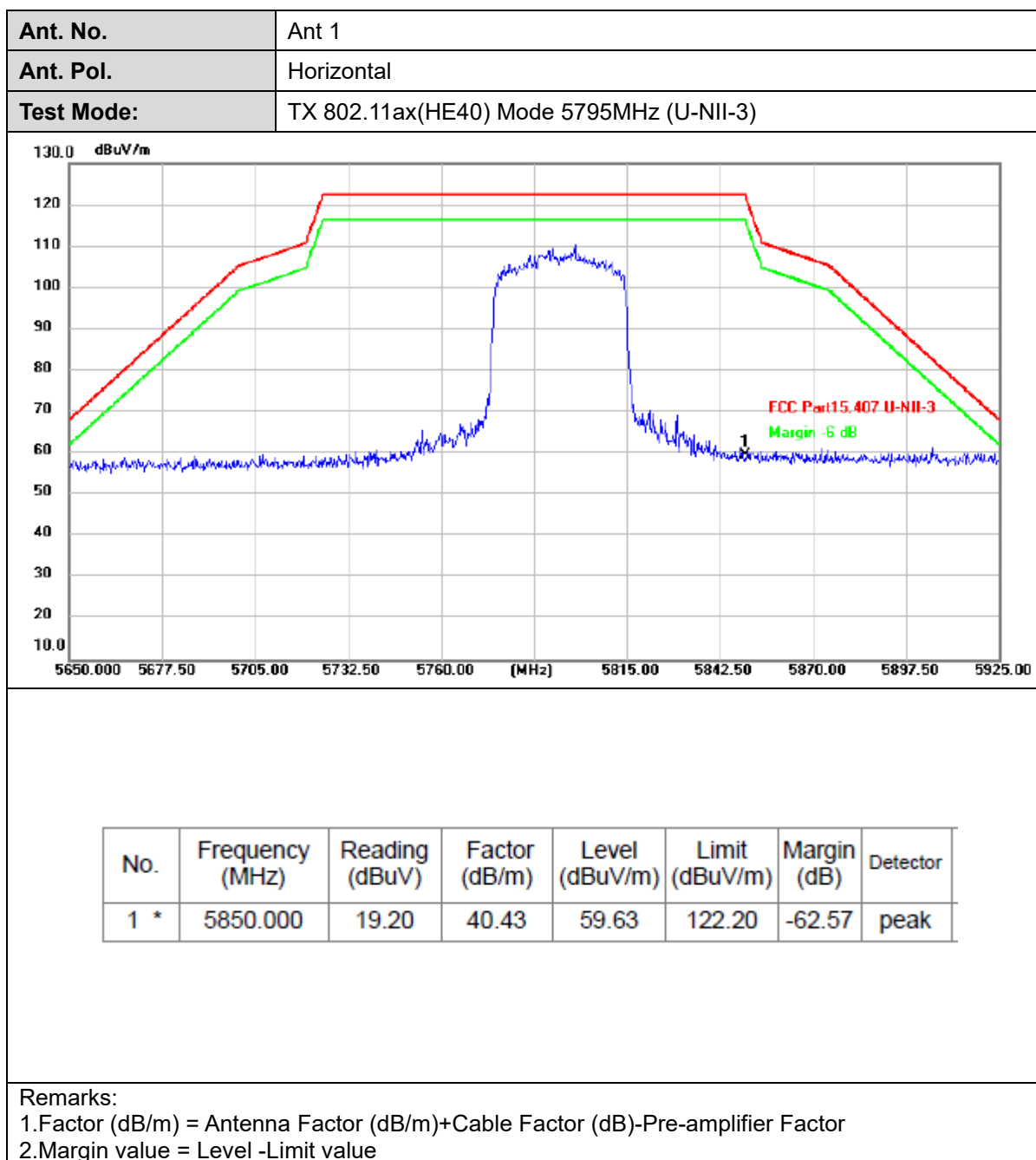


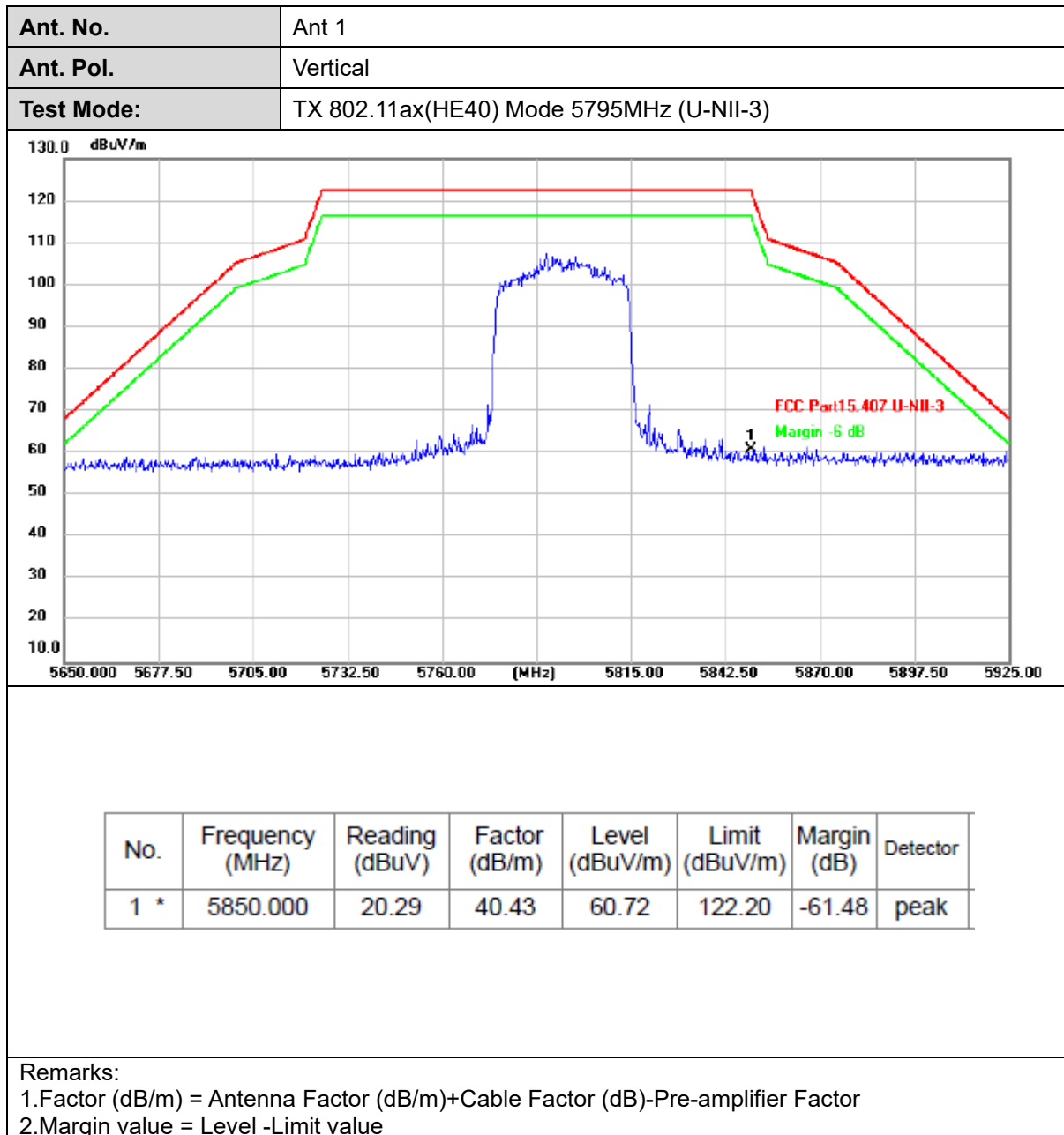


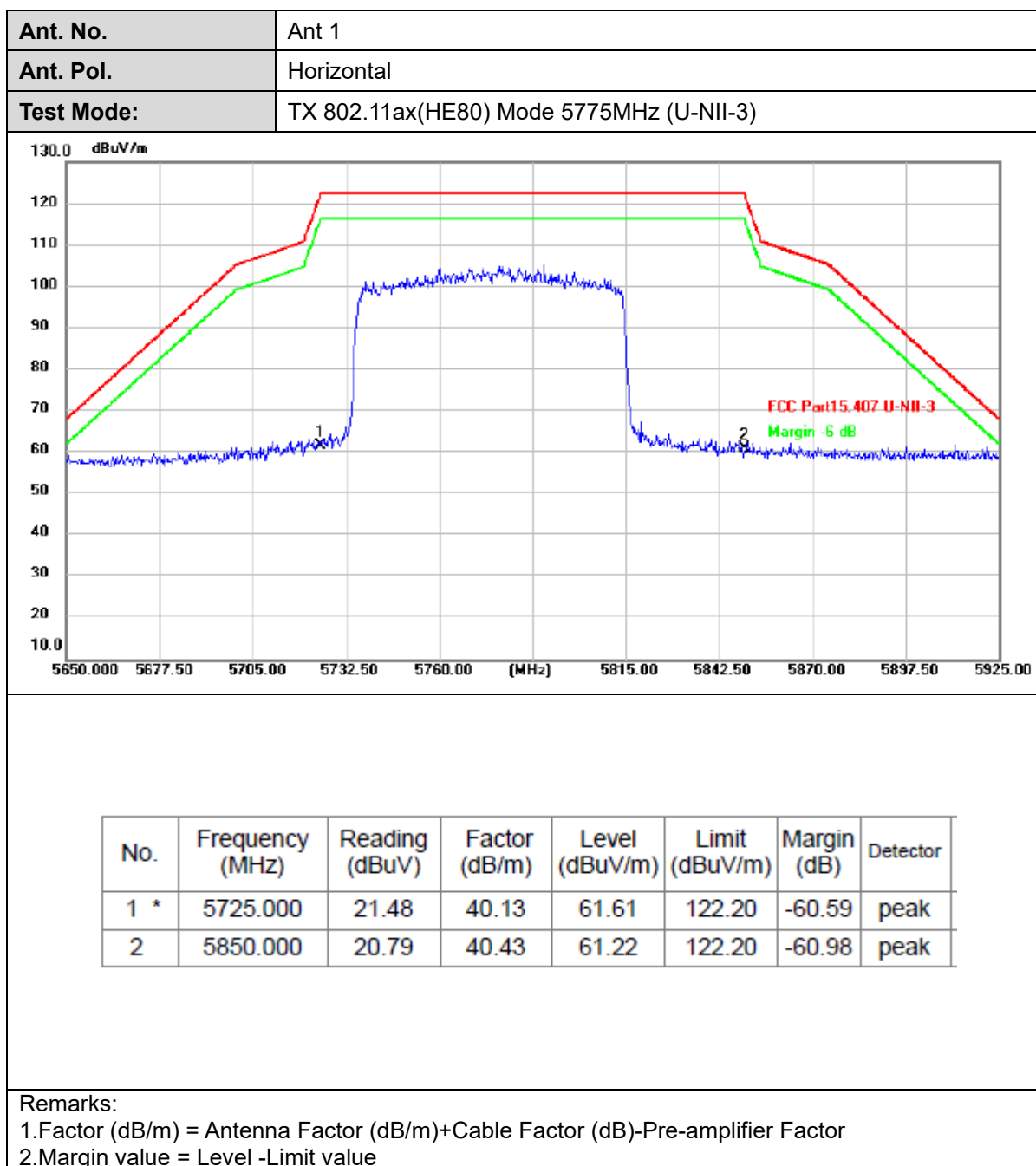


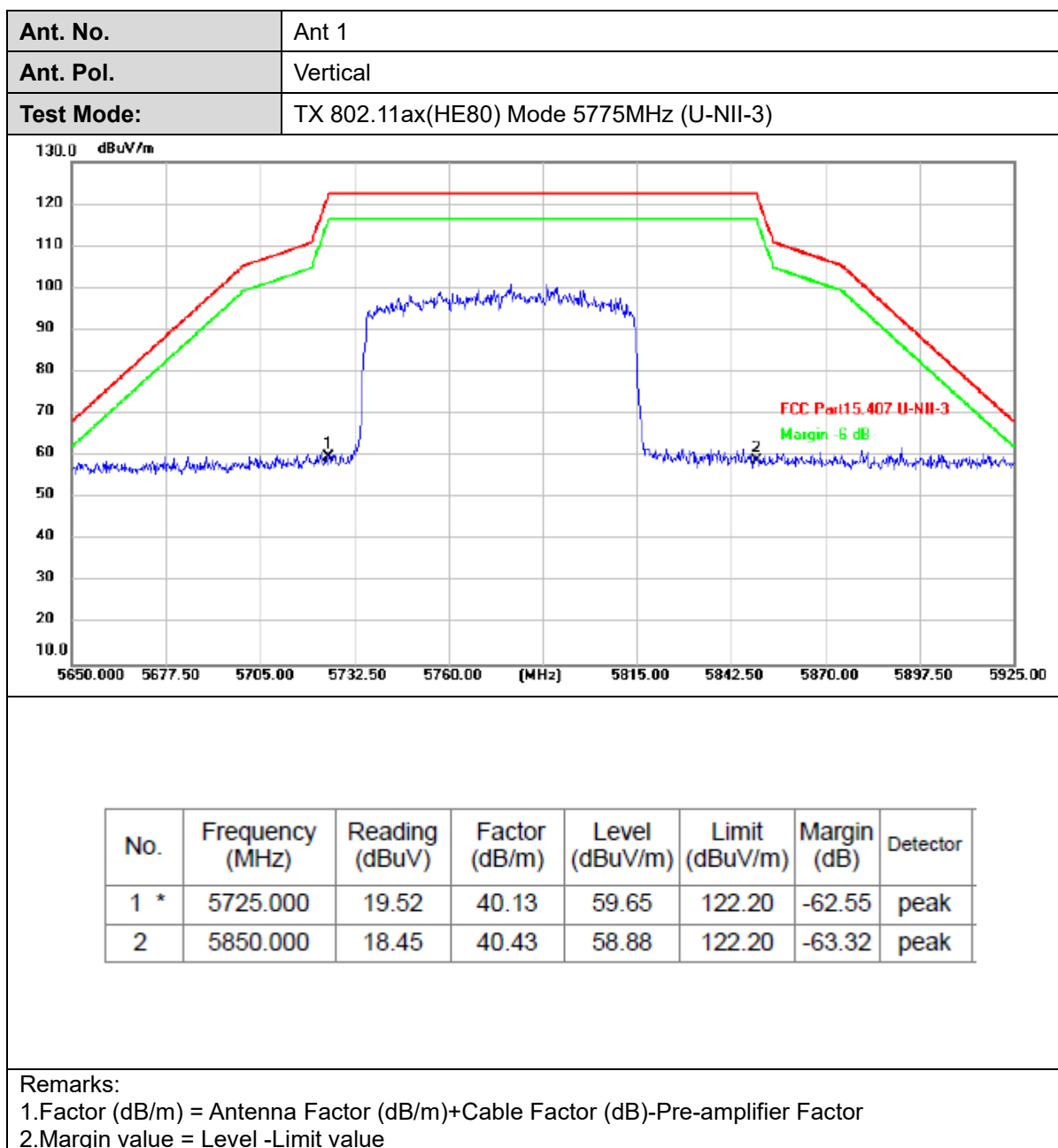












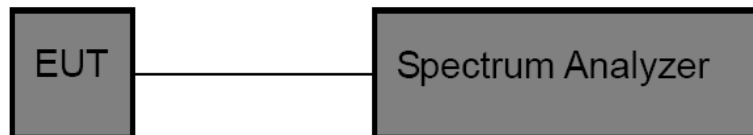
3.4. Bandwidth

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	5745	19.88	16.823
	Ant2	5745	19.72	16.743
	Ant1	5785	19.96	16.783
	Ant2	5785	19.68	17.103
	Ant1	5825	19.56	16.863
	Ant2	5825	19.60	16.983
11N20MIMO	Ant1	5745	20.16	17.582
	Ant2	5745	20.04	17.782
	Ant1	5785	19.80	17.782
	Ant2	5785	19.96	17.782
	Ant1	5825	19.96	18.022
	Ant2	5825	19.76	17.582
11N40MIMO	Ant1	5755	40.08	36.124
	Ant2	5755	40.08	35.964
	Ant1	5795	40.72	35.884
	Ant2	5795	39.84	35.804
11AC20MIMO	Ant1	5745	19.96	17.622
	Ant2	5745	19.88	17.502
	Ant1	5785	20.04	17.542
	Ant2	5785	19.84	17.662
	Ant1	5825	20.08	17.463
	Ant2	5825	19.84	17.622
11AC40MIMO	Ant1	5755	40.32	35.724
	Ant2	5755	39.60	35.804
	Ant1	5795	40.08	36.364
	Ant2	5795	40.48	35.884
11AC80MIMO	Ant1	5775	79.52	75.125
	Ant2	5775	79.36	74.645
11AX20MIMO	Ant1	5745	21.72	19.980
	Ant2	5745	21.44	19.221
	Ant1	5785	22.96	18.821
	Ant2	5785	20.88	18.901
	Ant1	5825	22.36	19.021
	Ant2	5825	22.08	19.301
11AX40MIMO	Ant1	5755	39.76	37.562
	Ant2	5755	39.76	37.562
	Ant1	5795	39.76	37.403
	Ant2	5795	39.68	37.562
11AX80MIMO	Ant1	5775	80.16	77.043
	Ant2	5775	80.16	78.002

6dB Bandwidth

TestMode	Antenna	Freq(MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.08	5737.48	5752.56	0.5	PASS
	Ant2	5745	16.28	5736.88	5753.16	0.5	PASS
	Ant1	5785	13.84	5778.72	5792.56	0.5	PASS
	Ant2	5785	15.48	5777.44	5792.92	0.5	PASS
	Ant1	5825	16.08	5817.12	5833.20	0.5	PASS
	Ant2	5825	13.84	5818.72	5832.56	0.5	PASS
11N20MIMO	Ant1	5745	13.40	5739.12	5752.52	0.5	PASS
	Ant2	5745	15.68	5736.88	5752.56	0.5	PASS
	Ant1	5785	12.56	5778.72	5791.28	0.5	PASS
	Ant2	5785	17.56	5776.24	5793.80	0.5	PASS
	Ant1	5825	15.04	5817.48	5832.52	0.5	PASS
	Ant2	5825	16.32	5817.48	5833.80	0.5	PASS
11N40MIMO	Ant1	5755	26.32	5743.72	5770.04	0.5	PASS
	Ant2	5755	33.84	5737.48	5771.32	0.5	PASS

CTC Laboratories, Inc.

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

Tel.: (86)755-27521059

Fax: (86)755-27521011

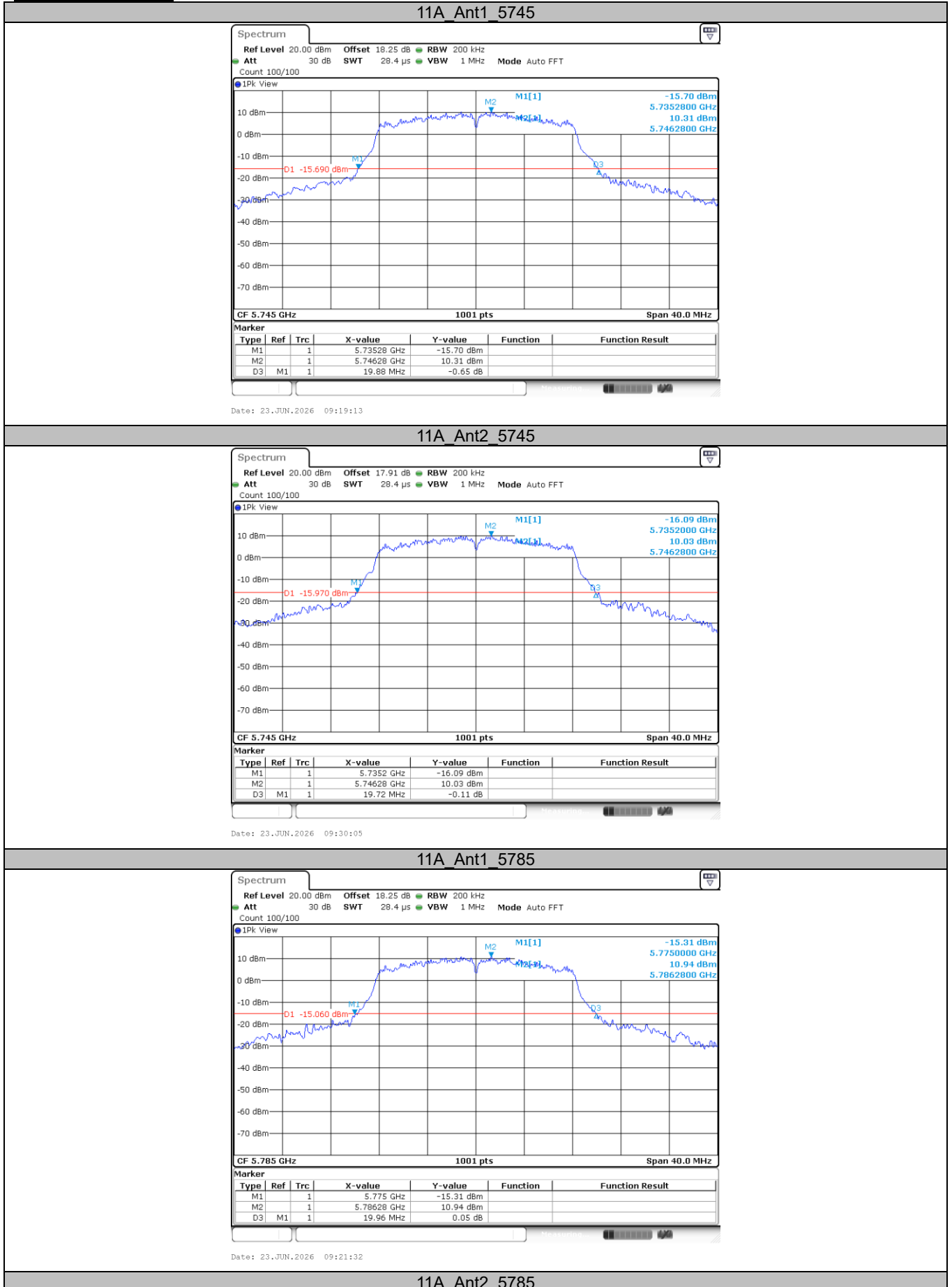
Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

Master TRF : Dated 2026-06-01

	Ant1	5795	35.36	5777.24	5812.60	0.5	PASS
	Ant2	5795	35.20	5777.40	5812.60	0.5	PASS
11AC20MIMO	Ant1	5745	16.28	5737.12	5753.40	0.5	PASS
	Ant2	5745	13.84	5738.72	5752.56	0.5	PASS
	Ant1	5785	15.04	5777.48	5792.52	0.5	PASS
	Ant2	5785	16.28	5776.88	5793.16	0.5	PASS
	Ant1	5825	16.52	5816.88	5833.40	0.5	PASS
	Ant2	5825	17.56	5816.24	5833.80	0.5	PASS
11AC40MIMO	Ant1	5755	32.64	5739.96	5772.60	0.5	PASS
	Ant2	5755	32.56	5739.96	5772.52	0.5	PASS
	Ant1	5795	35.04	5777.48	5812.52	0.5	PASS
	Ant2	5795	31.36	5777.48	5808.84	0.5	PASS
11AC80MIMO	Ant1	5775	56.16	5746.20	5802.36	0.5	PASS
	Ant2	5775	70.24	5737.40	5807.64	0.5	PASS
11AX20MIMO	Ant1	5745	16.48	5737.48	5753.96	0.5	PASS
	Ant2	5745	15.96	5737.44	5753.40	0.5	PASS
	Ant1	5785	18.80	5775.52	5794.32	0.5	PASS
	Ant2	5785	15.40	5777.44	5792.84	0.5	PASS
	Ant1	5825	17.60	5816.36	5833.96	0.5	PASS
	Ant2	5825	15.84	5817.44	5833.28	0.5	PASS
11AX40MIMO	Ant1	5755	32.64	5739.96	5772.60	0.5	PASS
	Ant2	5755	35.12	5737.48	5772.60	0.5	PASS
	Ant1	5795	33.92	5778.68	5812.60	0.5	PASS
	Ant2	5795	33.04	5777.48	5810.52	0.5	PASS
11AX80MIMO	Ant1	5775	47.36	5746.20	5793.56	0.5	PASS
	Ant2	5775	56.16	5750.20	5806.36	0.5	PASS

26dB Bandwidth:

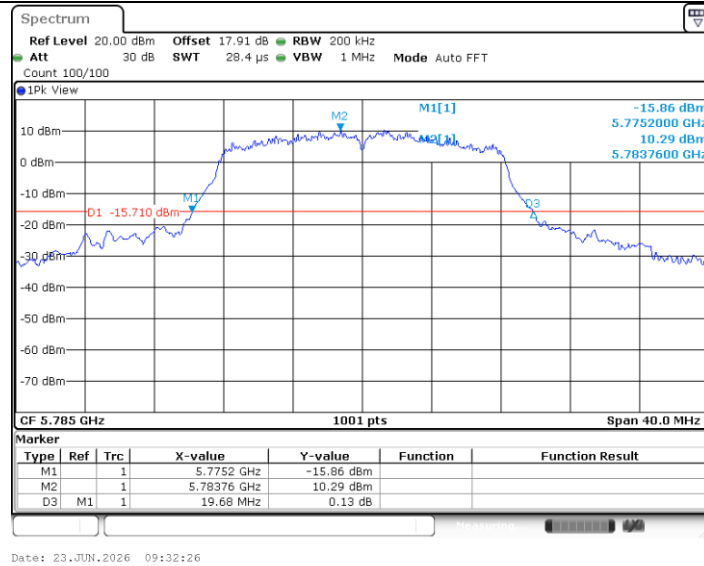


CTC Laboratories, Inc.

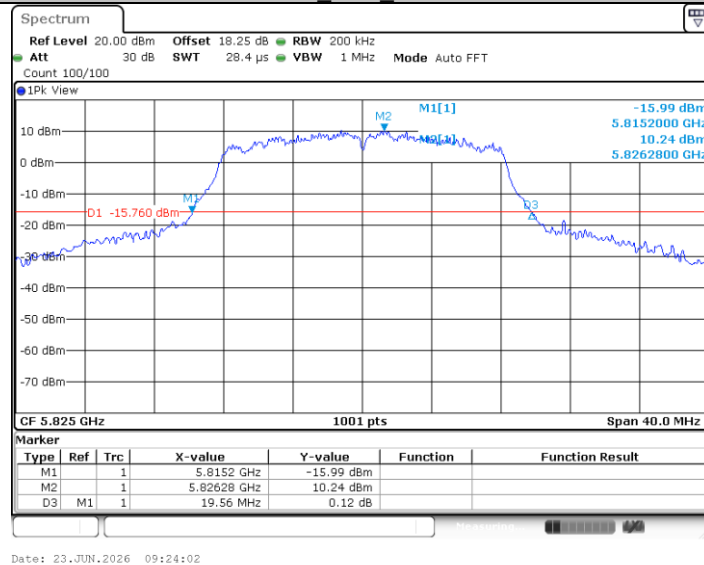
Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

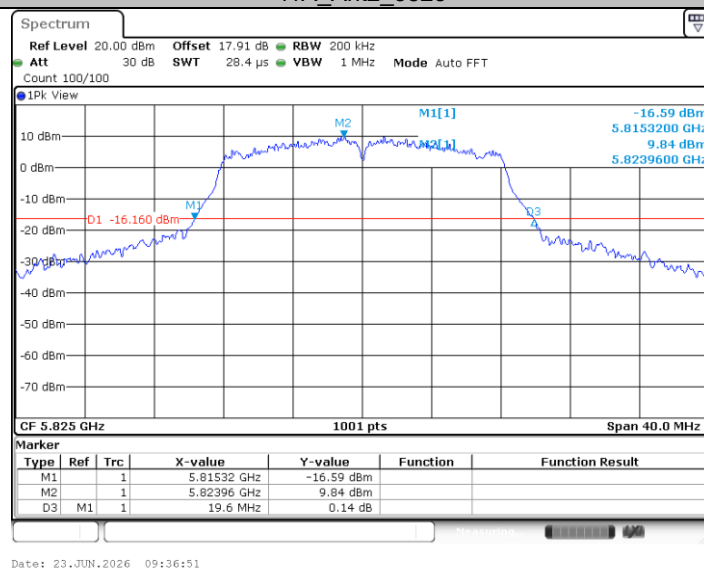
Master TRF : Dated 2026-06-01



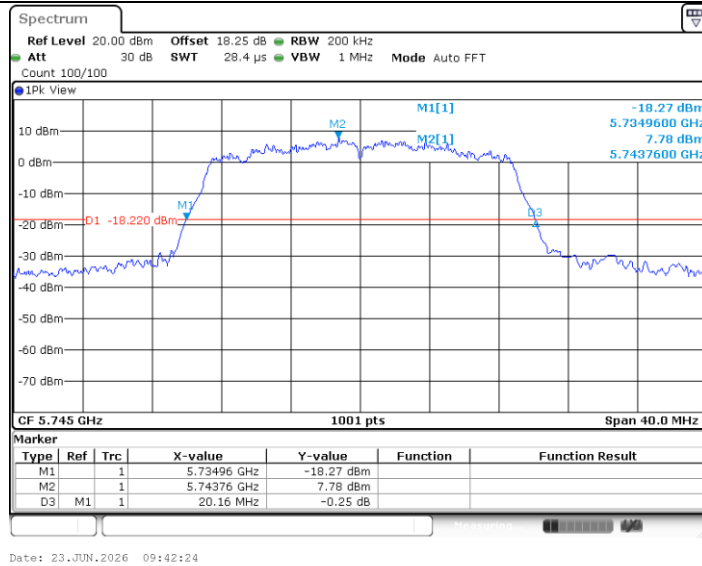
11A_Ant1_5825



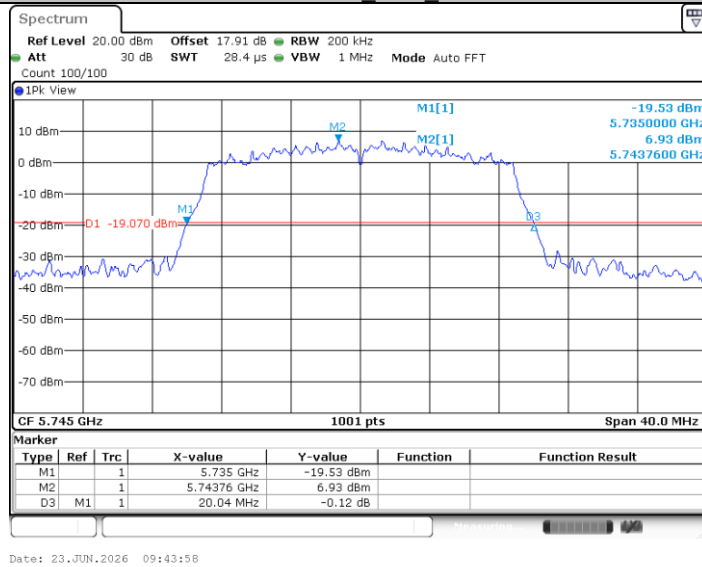
11A_Ant2_5825



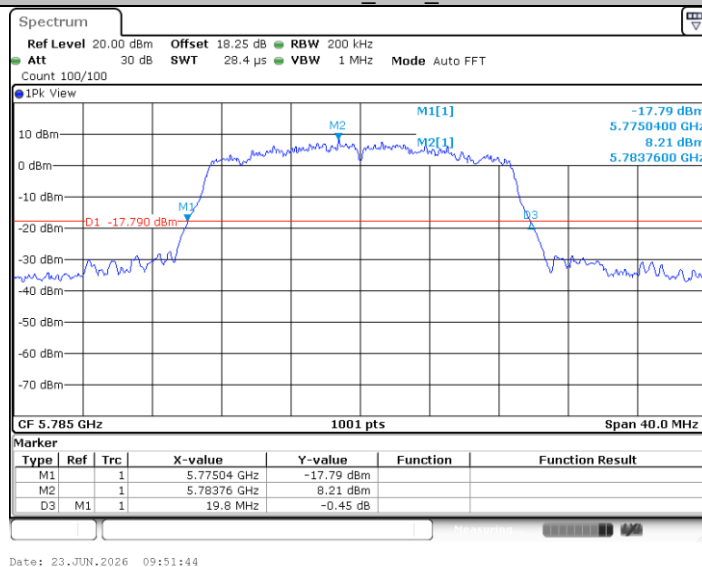
11N20MIMO_Ant1_5745



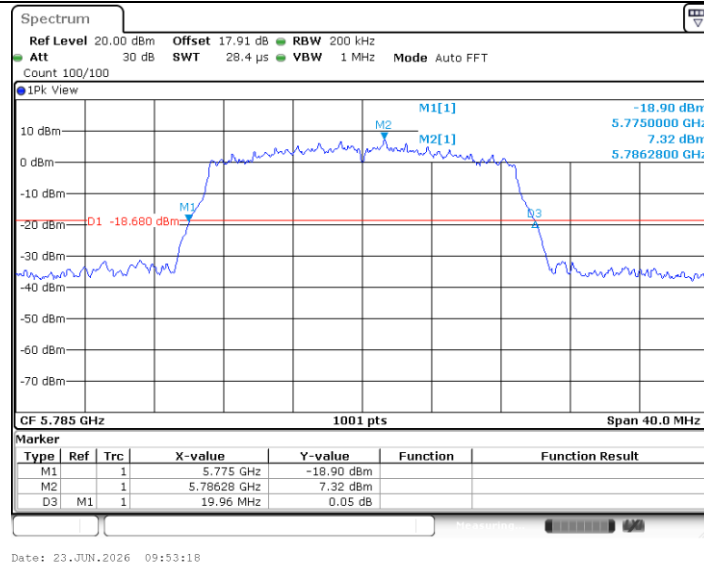
11N20MIMO_Ant2_5745



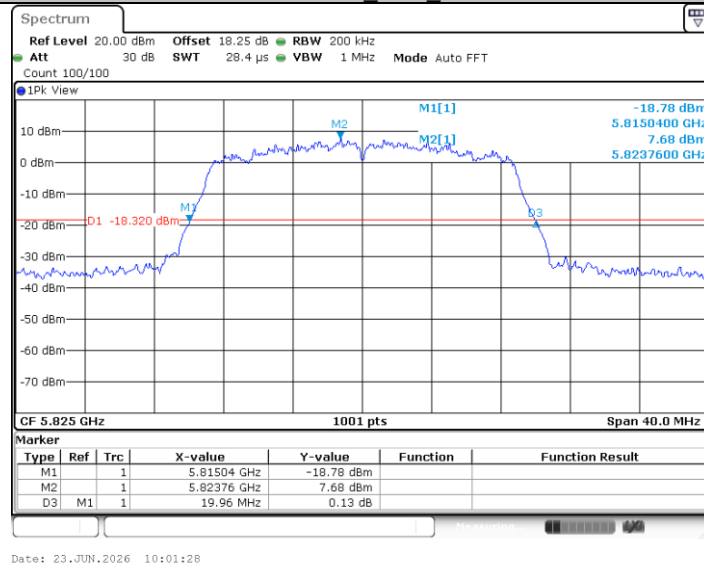
11N20MIMO_Ant1_5785



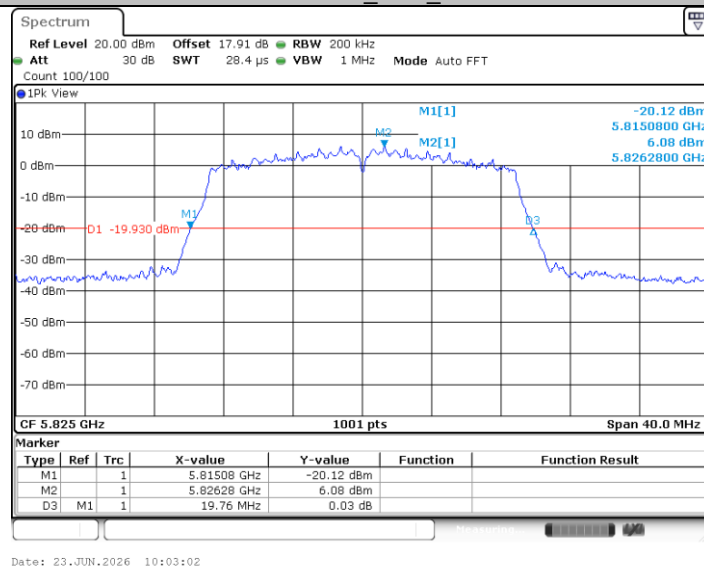
11N20MIMO_Ant2_5785



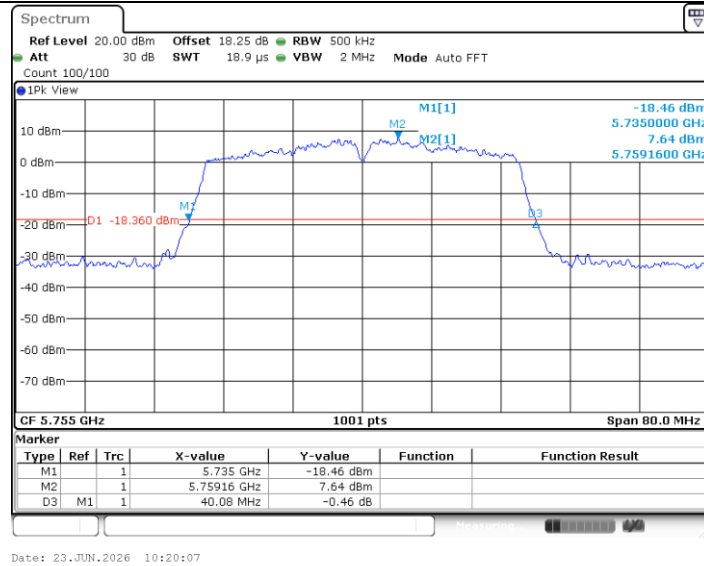
11N20MIMO_Ant1_5825



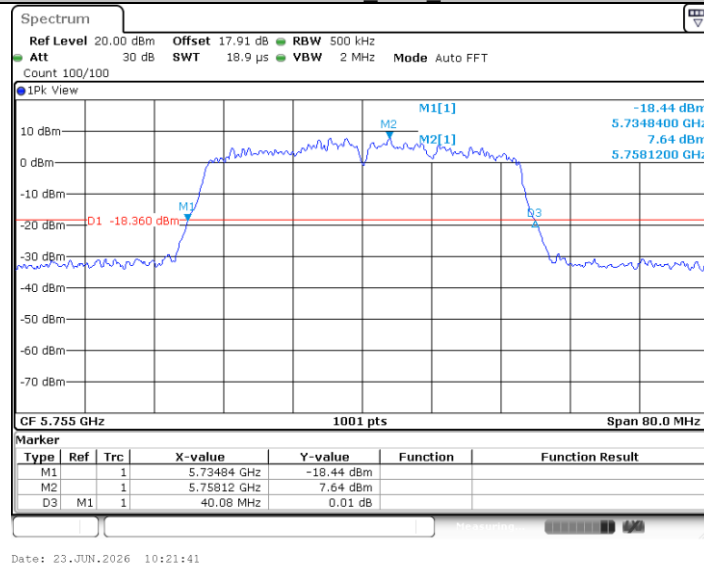
11N20MIMO_Ant2_5825



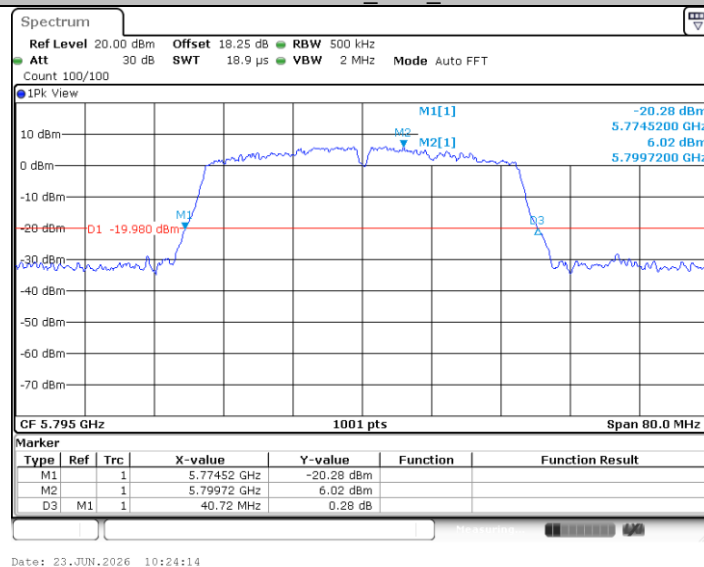
11N40MIMO_Ant1_5755



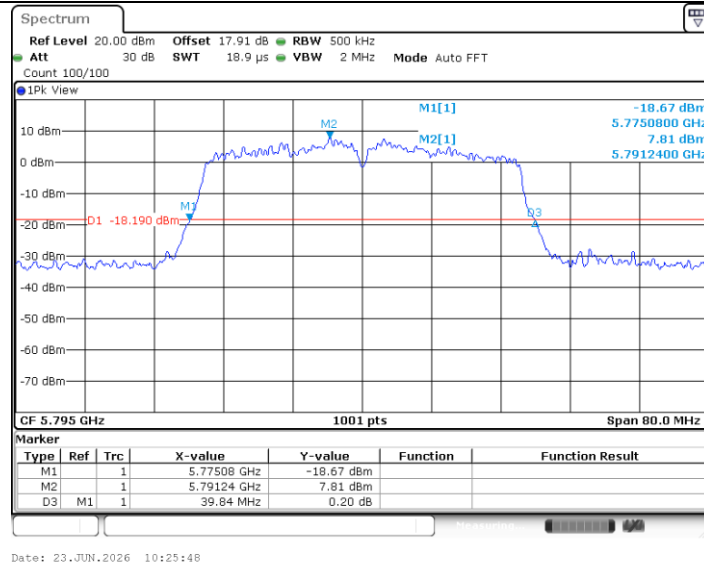
11N40MIMO_Ant2_5755



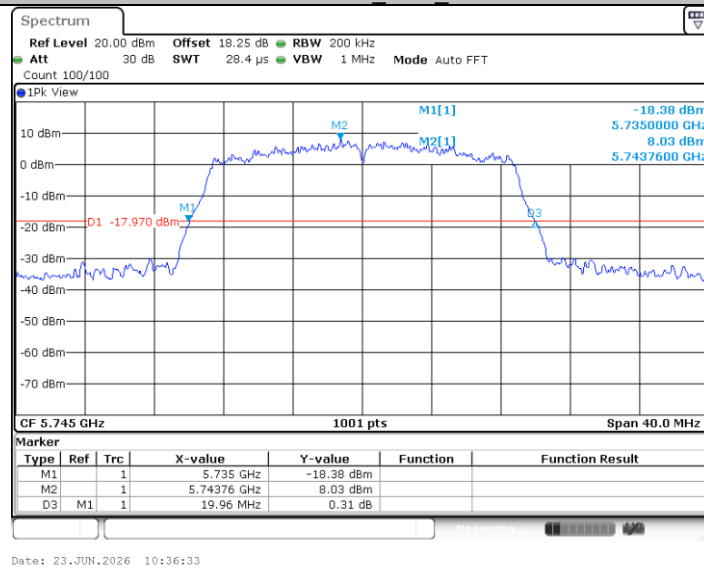
11N40MIMO_Ant1_5795



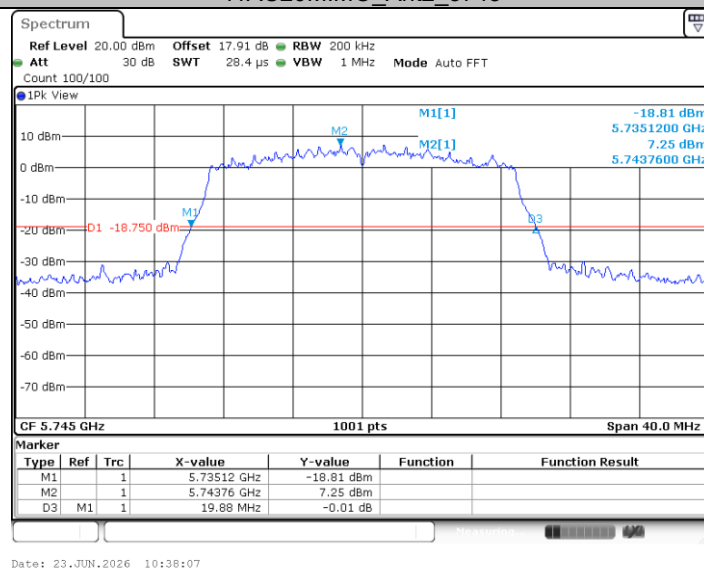
11N40MIMO_Ant2_5795



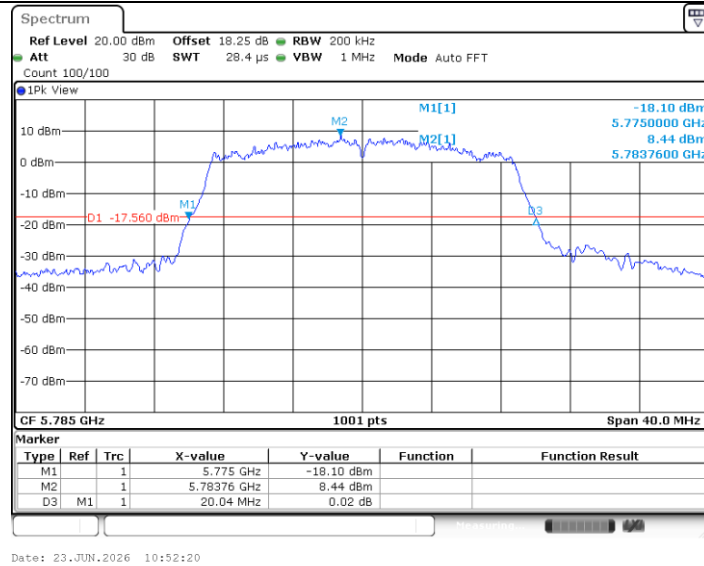
11AC20MIMO_Ant1_5745



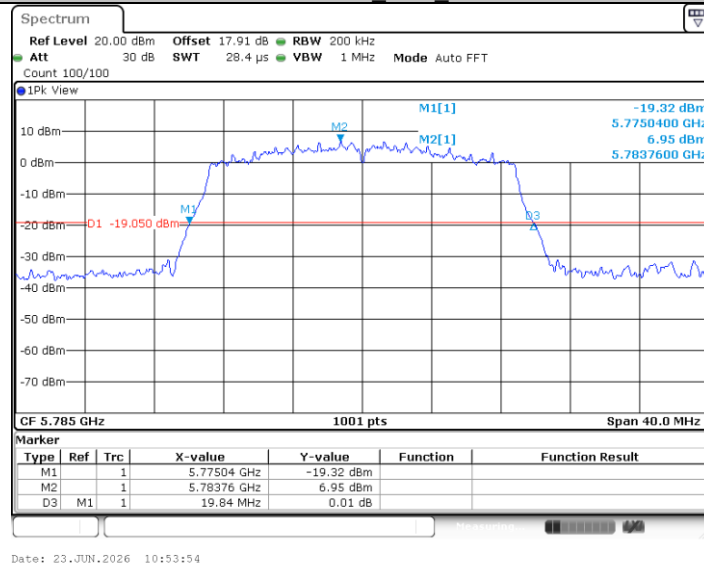
11AC20MIMO_Ant2_5745



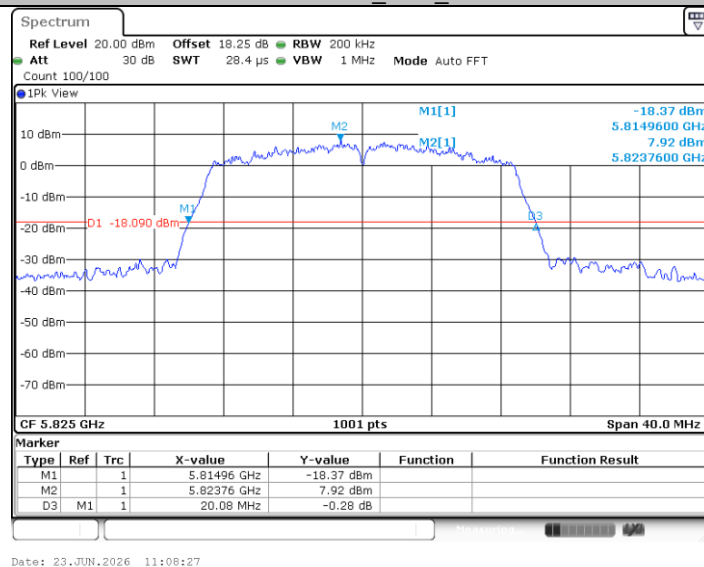
11AC20MIMO_Ant1_5785



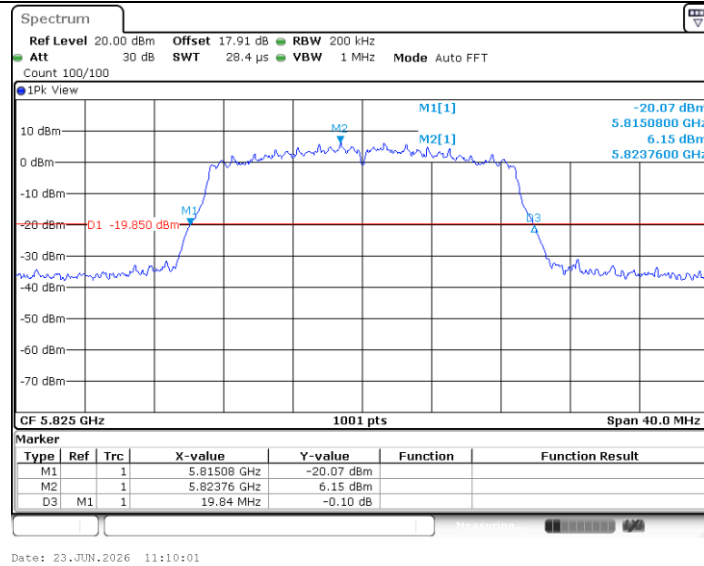
11AC20MIMO_Ant2_5785



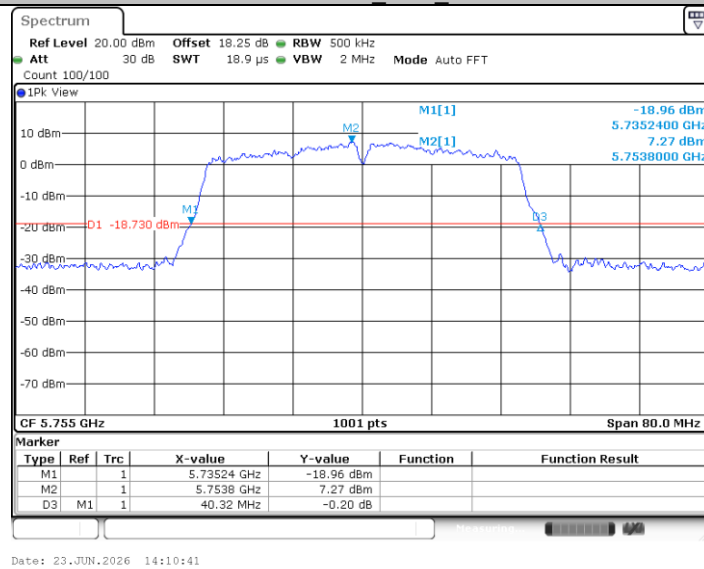
11AC20MIMO_Ant1_5825



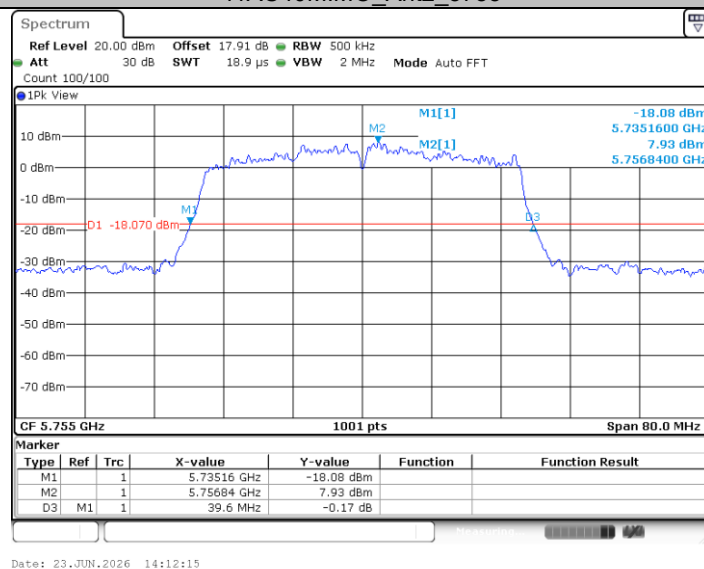
11AC20MIMO_Ant2_5825



11AC40MIMO_Ant1_5755



11AC40MIMO_Ant2_5755



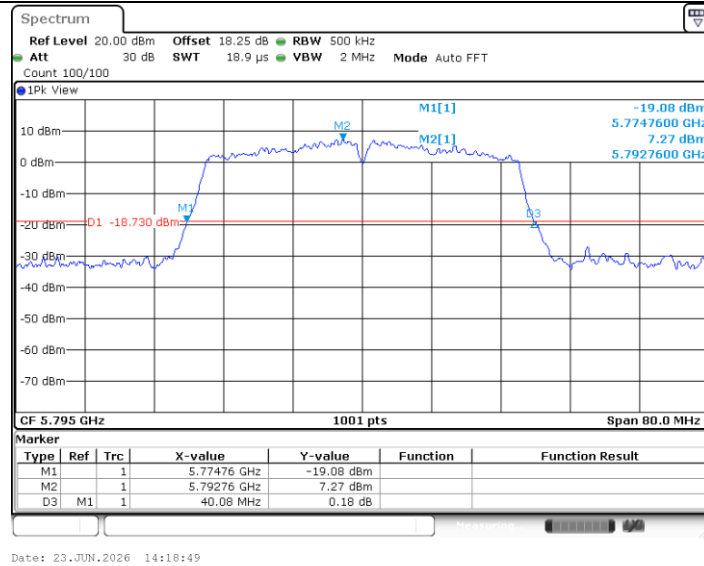
11AC40MIMO_Ant1_5795

CTC Laboratories, Inc.

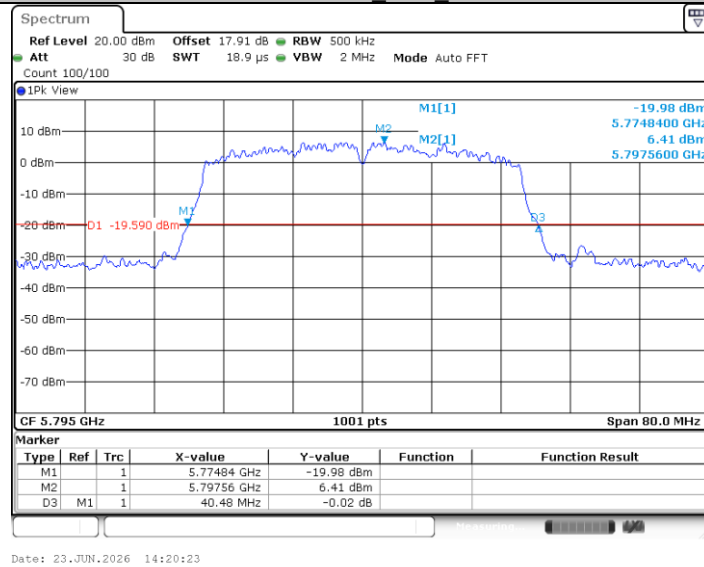
Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

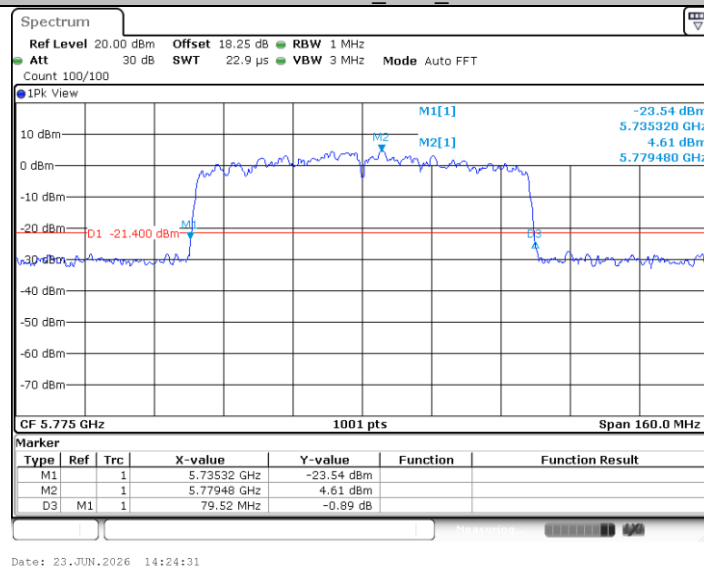
Master TRF : Dated 2026-06-01



11AC40MIMO_Ant2_5795



11AC80MIMO_Ant1_5775



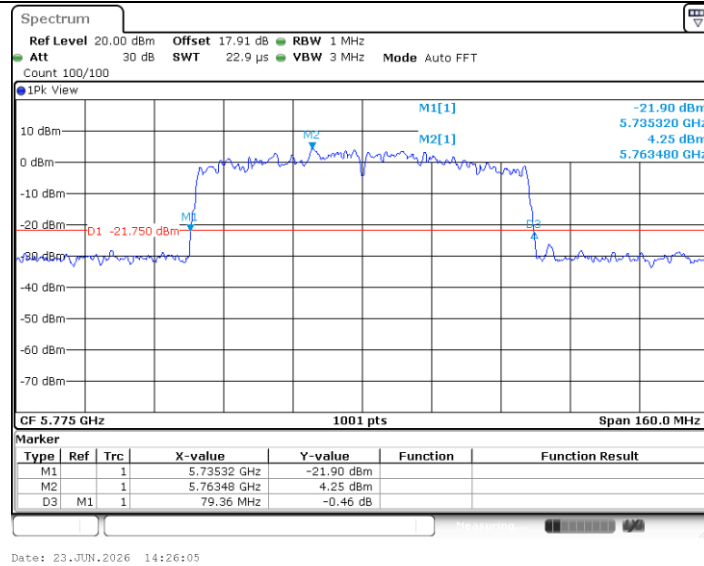
11AC80MIMO_Ant2_5775

CTC Laboratories, Inc.

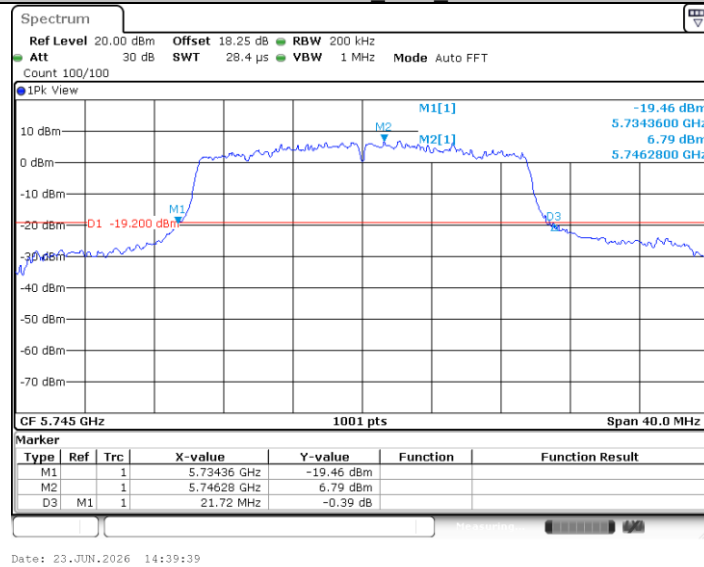
Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhua Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

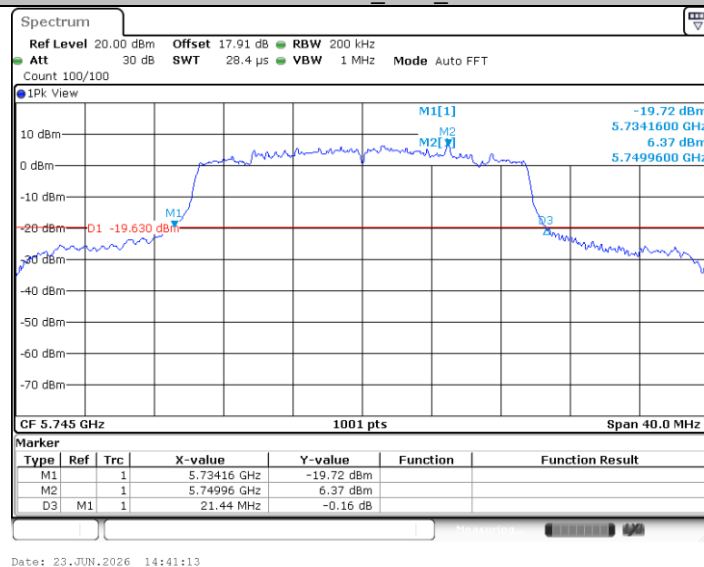
Master TRF : Dated 2026-06-01



11AX20MIMO_Ant1_5745



11AX20MIMO_Ant2_5745



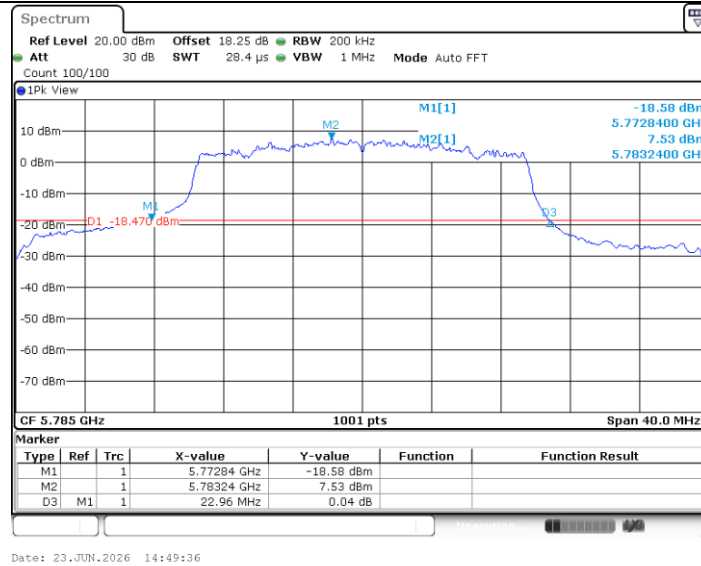
11AX20MIMO_Ant1_5785

CTC Laboratories, Inc.

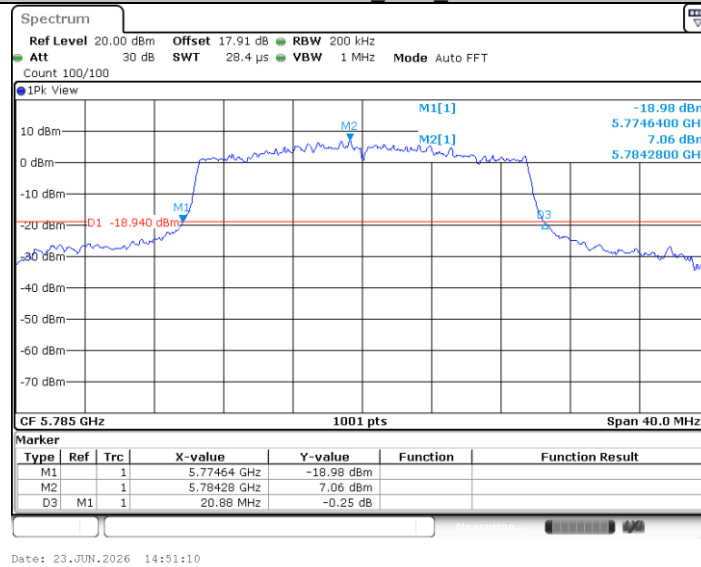
Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

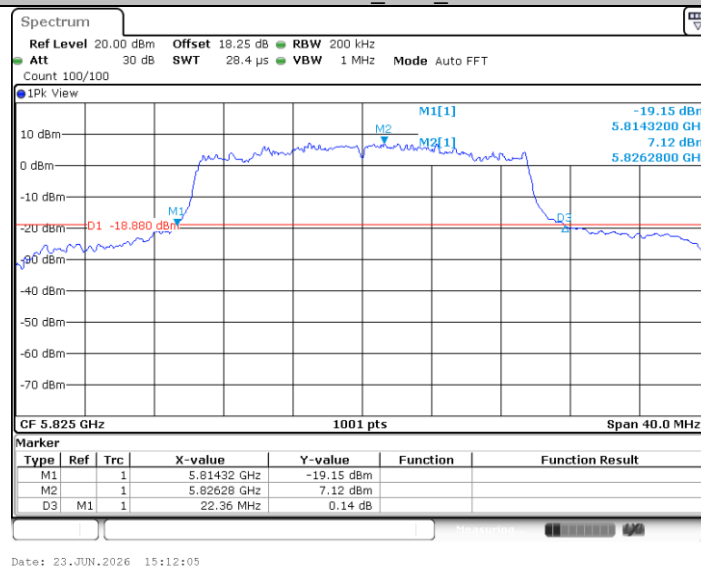
Master TRF : Dated 2026-06-01



11AX20MIMO_Ant2_5785



11AX20MIMO_Ant1_5825



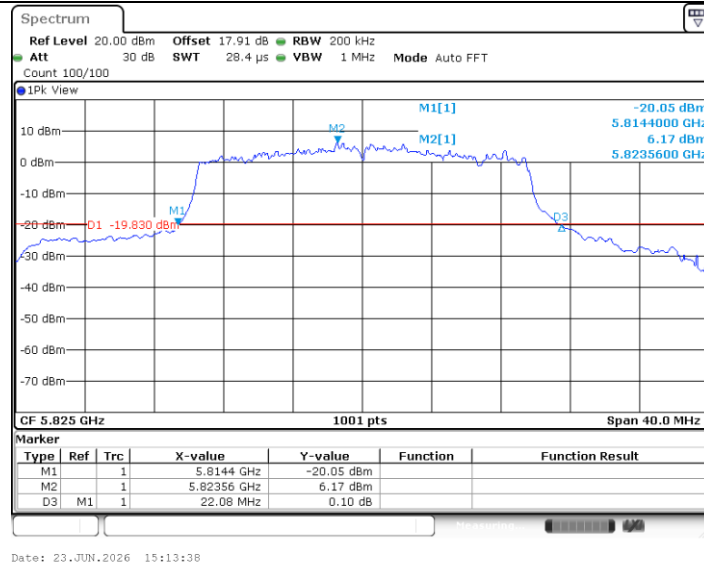
11AX20MIMO_Ant2_5825

CTC Laboratories, Inc.

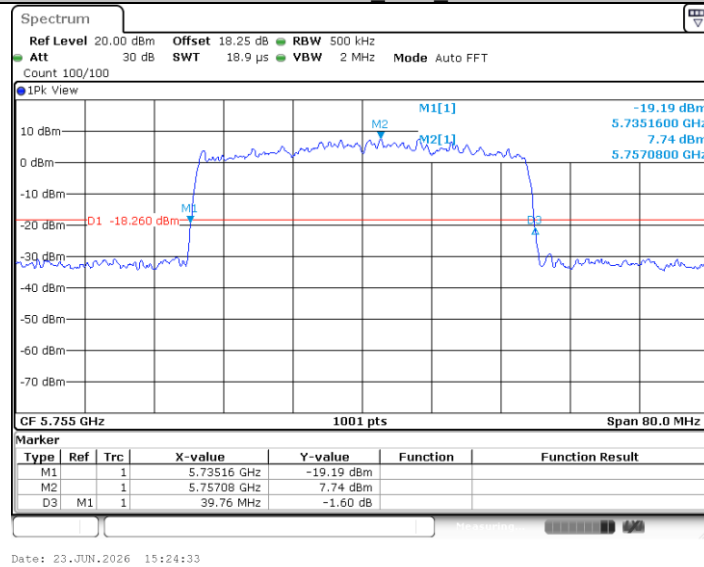
Room 107, 108, 207, 208 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

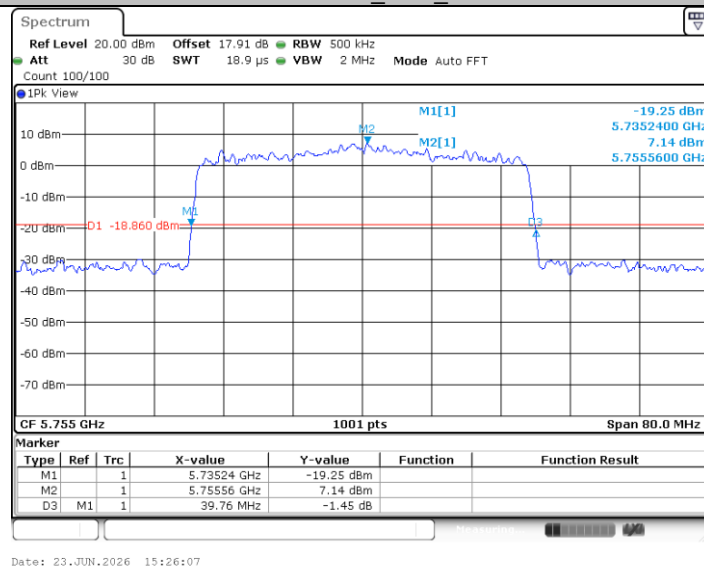
Master TRF : Dated 2026-06-01



11AX40MIMO_Ant1_5755



11AX40MIMO_Ant2_5755



11AX40MIMO_Ant1_5795

CTC Laboratories, Inc.

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

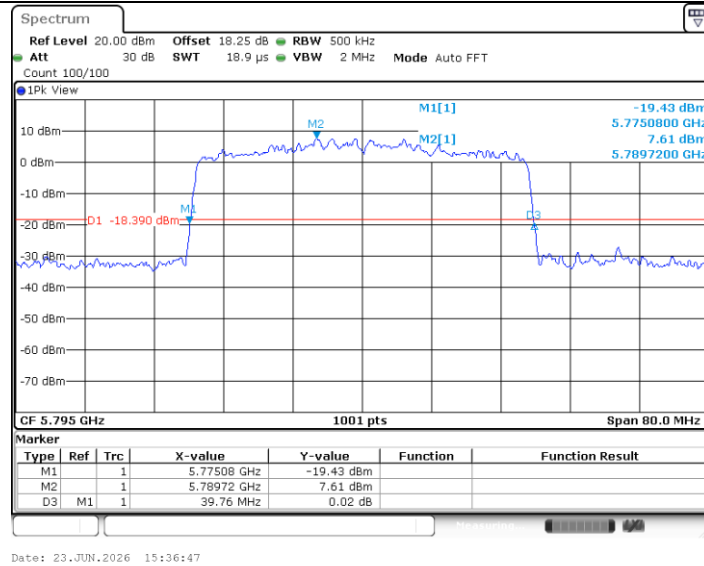
Tel.: (86)755-27521059

Fax: (86)755-27521011

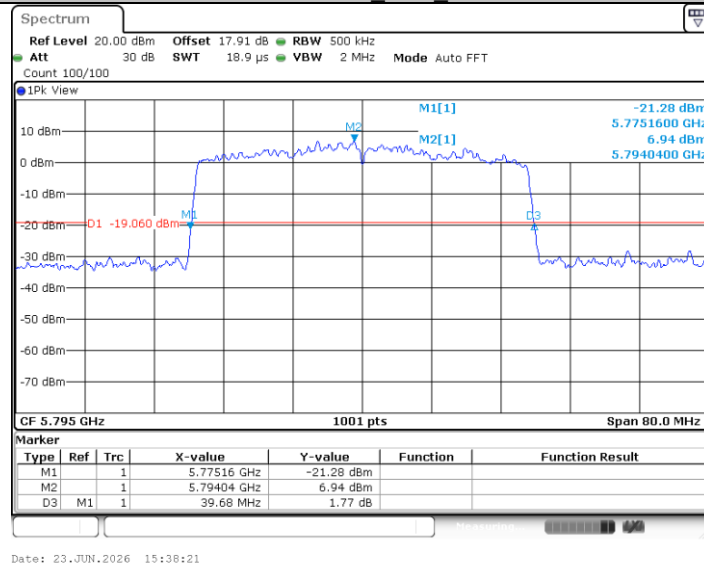
Http://www.sz-ctc.org.cn

TRF No: CTC-TR-062_A5

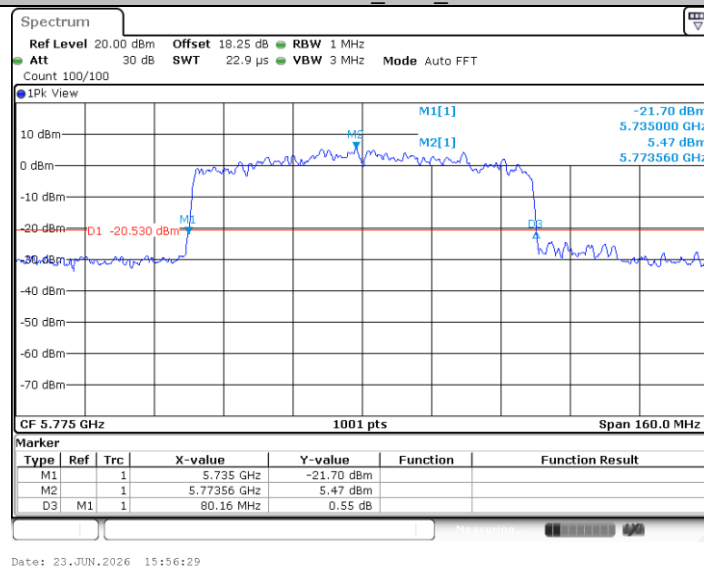
Master TRF : Dated 2026-06-01



11AX40MIMO_Ant2_5795



11AX80MIMO_Ant1_5775



11AX80MIMO_Ant2_5775