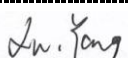


TEST REPORT

For WiFi-5GHz Band

Report No.....	: CHTW26065037	
Project No	: SHT2603040705W	
FCC ID	: Q5EKI60	
Applicant's name	: Kirisun Communication Co.,Ltd.	
Address	3rd Floor, Building A, Tongfang Information Harbour, No.11 Langshan Road, Nanshan District, Shenzhen 518057, P.R.China	
Product Name	PTToC Radio	
Trade Mark.....		
Model No.....	K-I60	
Listed Model(s)	GP800	
Standard	FCC CFR Title 47 Part 15 Subpart E § 15.407	
Date of receipt of test sample.....	2026/4/7	
Date of testing.....	2026/4/24- 2026/6/24	
Date of issue.....	2026/6/30	
Result.....	PASS	

Compiled by (Position+Printed name+Signature) :	File administrator	Caspar Chen	
Supervised by (Position+Printed name+Signature) :	Project Engineer	Xiaodong Zhao	
Approved by (Position+Printed name+Signature) :	RF Manager	Xu Yang	

Testing Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.
Address	Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong, China

Test Report Form No.	: R0066
Test Report Form(s) Originator	: Shenzhen Huatongwei International Inspection Co., Ltd.
Master TRF	: Dated 2025-07

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1. TEST STANDARDS AND REPORT VERSION

1.1. Test Standards

The tests were performed according to following standards:

- [FCC CFR Title 47 Part 15 Subpart E § 15.407](#): General technical requirements
- [ANSI C63.10:2020](#): American National Standard for Testing Unlicensed Wireless Devices
- [KDB789033 D02 v02r01](#): GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPART E

1.2. Report version

Revision No.	Date of issue	Description
N/A	2026-06-30	Original

2. TEST DESCRIPTION

Report clause	Test Items	Standard Requirement	Result	Test Engineer
5.1	Antenna Requirement	15.203/15.247(c)	PASS	JIAXING.SI
5.2	AC Conducted Emission	15.207	PASS	YATING.CHEN
5.3	Maximum Conducted Output Power	15.407(a)	PASS*	-
5.4	Maximum Power Spectral Density	15.407(a)	PASS*	-
5.5	26dB Bandwidth and 99% Occupancy bandwidth	15.407(a)	PASS*	-
5.6	6dB Bandwidth	15.407(a)	PASS*	-
5.7	Band edge	15.407(b)	PASS	JUNXU.LIN
5.8	Radiated Spurious Emissions	15.209/15.407(b)	PASS	ZIWEN.WANG JUNXU.LIN
5.9	Frequency Stability	15.407(g)	PASS*	-

Note:

- The measurement uncertainty is not included in the test result.
- *: Refer to module FCC ID: XMR2022SC200ENA.

3. SUMMARY

3.1. Client Information

Applicant:	Kirisun Communication Co.,Ltd.
Address:	3rd Floor, Building A, Tongfang Information Harbour, No.11 Langshan Road, Nanshan District, Shenzhen 518057, P.R.China
Manufacturer:	Kirisun Communication Co.,Ltd.
Address:	3rd Floor, Building A, Tongfang Information Harbour, No.11 Langshan Road, Nanshan District, Shenzhen 518057, P.R.China
Factory:	Fujian Kirisun Communication Co., Ltd
Address:	Building C,Haixi Electronic Information Industry Incubation Base,Science and Industry Road,Hi-Tech Industry Park,Fengze District,Quanzhou,362000 Fujian,P.R.China

3.2. Product Description

Main unit information:	
Product Name:	PTToC Radio
Trade Mark:	
Model No.:	K-I60
Listed Model(s):	GP800
Power supply:	DC 7.7V from Battery
Hardware version:	V1.0
Software version:	V1.0
Accessory unit information:	
Battery information:	Model: KDC-D60-A 7.7V 2400mAh/18.48Wh
Adapter information:	Model: TPQ-236A120100UW01 Input: 100-240V~50/60Hz 0.4A Output: 12.0Vd.c., 1.0A
Rapid Charger information:	Model: KBC-TD60-1Q Input: 12Vd.c. 1000mA Output: 800mA

3.3. Radio Specification Description

Support type* ¹	☒ 802.11a	☒ 802.11n	☒ 802.11ac
Support Bandwidth	20MHz:	802.11n, 802.11a, 802.11ac	
	40MHz:	802.11n, 802.11ac	
	80MHz:	802.11ac	
Operation frequency:	☒ U-NII-1 Band:	5150MHz~5250MHz	
	☒ U-NII-2A Band:	5250MHz~5350MHz	
	☒ U-NII-2C Band:	5470MHz~5725MHz	
	☒ U-NII-3 Band:	5725MHz~5850MHz	
Modulation:	BPSK, QPSK, 16QAM, 64QAM, 256QAM		
Function:	☐ Outdoor AP	☐ Indoor AP	☐ Fixed P2P
	☒ Client		
DFS type:	☐ Master devices	☐ Slave devices with radar detection	☒ Slave devices without radar detection
Antenna technology:	☒ SISO	☐ MIMO	
Antenna type:	Internal Antenna		
Antenna gain:	U-NII-1 Band: -0.67dBi U-NII-2A Band: -0.19dBi U-NII-2C Band: 0.30dBi U-NII-3 Band: 0.24dBi		

Note:

*1: only show the RF function associated with this report.

3.4. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong, China	
Contact information:	Phone: 400-963-0755 E-mail: cs@szhtw.com.cn http://www.szhtw.com.cn	
Qualifications	Type	Accreditation Number
	FCC Registration Number	762235
	FCC Designation Number	CN1181

4. TEST CONFIGURATION

4.1. Test frequency list

According to section 15.31(m), regards to the operating frequency range over 10 MHz, must select three channels which were tested. The Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the below.

Band	Test Channel	20MHz		40MHz		80MHz	
		Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
U-NII-1	CH _L	36	5180	38	5190	-	-
	CH _M	44	5220	-	-	42	5210
	CH _H	48	5240	46	5230	-	-
U-NII-2A	CH _L	52	5260	54	5270	-	-
	CH _M	56	5280	-	-	58	5290
	CH _H	64	5320	62	5310	-	-
U-NII-2C	CH _L	100	5500	102	5510	106	5530
	CH _M	116	5580	110	5550	122	5610
	CH _H	140	5700	134	5670	138	5690
	CH _{H1}	144	5720	142	5710		
U-NII-3	CH _L	149	5745	151	5755	-	-
	CH _M	157	5785	-	-	155	5775
	CH _H	165	5825	159	5795	-	-

4.2. Descriptions of Test mode

Preliminary tests were performed in different data rates, final test modes are considering the modulation and worse data rates as below table.

Modulation	Data rate
802.11a	6Mbps
802.11n(HT20)/ 802.11ac(HT20)	MCS0
802.11n(HT40)/ 802.11ac(HT40)	MCS0
802.11ac(HT80)	MCS0

4.3. 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.

4.4. Fix frequency software name and power settings

software name	Mode	Power Class
QCRT	802.11a	17.5
	802.11n(HT20)	17.5
	802.11n(HT40)	16.0
	802.11ac(VHT20)	18.0
	802.11ac(VHT40)	16.0
	802.11ac(VHT80)	16.0

4.5. Test sample information

Test item	HTW sample no.
RF Radiated test items	YPHT26030407004
EMI test items	YPHT26030407004

Note:

RF Radiated test items: Band edge, Radiated Spurious Emission

EMI test items: AC Conducted Emission

4.6. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?			
✓ No			
Item	Equipment	Trade Name	Model No.
1			
2			

4.7. Testing environmental condition

Type	Requirement	Actual
Temperature:	15~35°C	25°C
Relative Humidity:	25~75%	50%
Air Pressure:	860~1060mbar	1000mbar

4.8. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
1	AC Conducted Emission	3.21dB
2	Radiated Band Edge Emission	4.54dB for 30MHz-1GHz 5.10dB for above 1GHz
3	Radiated Spurious Emission	4.54dB for 30MHz-1GHz 5.10dB for above 1GHz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.

4.9. Equipment Used during the Test

● Test Software					
Used	Test Item	Software Name	Manufacturer	Equipment No.	Version
●	Conducted Emission	EMC32	R&S	HTWER012	V10.60.20
●	Radiated Emission (Below 1G)	TS+	Tonscend	/	V5.0.0
●	Radiated Spurious Emission	E3	AUDIX	HTWER006	V6.110407a

● Conducted Emission							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	EMI Test Receiver	R&S	HTWE0111	ESCI	101247	2025/8/6	2026/8/5
●	Artificial Mains	SCHWARZBECK	HTWE0113	NNLK 8121	573	2025/8/6	2026/8/5
●	Protection Network	SCHWARZBECK	HTWE0567	VTSD9561FN	00899	2025/8/6	2026/8/5
●	ISN	FCC	HTWE0148	FCC-TLISN-T2-02	20371	2025/8/6	2026/8/5
●	ISN	FCC	HTWE0150	FCC-TLISN-T8-02	20375	2025/8/6	2026/8/5
●	Cable	-	HTWE0113-02	-	-	2025/5/26	2026/5/25
●	Cable	-	HTWE0113-02	-	-	2026/5/12	2027/5/11

● Radiated emission- 9kHz~30MHz							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	HTWE0127	SAC-3m-02	C11121	2026/3/24	2029/3/23
●	EMI Test Receiver	R&S	HTWE0099	ESCI 7	100900	2025/8/6	2026/8/5
●	Loop Antenna	R&S	HTWE0546	HFH2-Z2E	101073	2024/4/8	2027/4/7
●	Cable	-	HTWE0062-01+HTWE0062-02	-	-	2025/5/26	2026/5/25
●	Cable	-	HTWE0062-01+HTWE0062-02	-	-	2026/5/12	2027/5/11

● Radiated emission- 30MHz~1GHz							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	HTWE0127	SAC-3m-02	C11121	2026/3/24	2029/3/23
●	EMI Test Receiver	R&S	HTWE0099	ESCI 7	100900	2025/8/6	2026/8/5
●	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0119	VULB9163	546	2025/12/16	2028/12/15
●	Pre-Amplifier	SCHWARZBECK	HTWE0295	BBV 9742	/	2025/5/26	2026/5/25
●	Pre-Amplifier	SCHWARZBECK	HTWE0295	BBV 9742	/	2026/5/12	2027/5/11
●	CMAD	SCHWARZBECK	HTWE0537	CMAD1614	1614-530	2025/8/4	2026/8/3
●	Cable	-	HTWE0062-01+HTWE0062-02	-	-	2025/5/26	2026/5/25
●	Cable	-	HTWE0062-01+HTWE0062-02	-	-	2026/5/12	2027/5/11

● Radiated emission- Above 1GHz							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Full-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	C11122	2026/3/19	2029/3/18
●	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2025/8/6	2026/8/5
●	Horn Antenna	SCHWARZBECK	HTWE0126	BBHA 9120D	1011	2026/1/23	2029/1/22
●	Broadband Pre-amplifier	SCHWARZBECK	HTWE0551	SCU18F	100855	2025/5/26	2026/5/25
●	Broadband Pre-amplifier	SCHWARZBECK	HTWE0551	SCU18F	100855	2026/5/12	2027/5/11
●	Horn Antenna	STEATITE	HTWE0549	QMS-00880	25661	2025/4/14	2028/4/13
●	Pre-amplifier	SCHWARZBECK	HTWE0552	SCU40F1	100619	2025/5/26	2026/5/25
●	Pre-amplifier	SCHWARZBECK	HTWE0552	SCU40F1	100619	2026/5/12	2027/5/11
●	Cable	-	HTWE0121-03+HTWE0121-04+HTWE0104-09	-	-	2025/5/26	2026/5/25
●	Cable	-	HTWE0121-03+HTWE0121-04+HTWE0104-09	-	-	2026/5/12	2027/5/11

5. TEST CONDITIONS AND RESULTS

5.1. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

TEST RESULT

☒ **Passed** ☐ **Not Applicable**

The antenna type is a Internal Antenna, please refer to the below antenna photo.



5.2. AC Conducted Emission

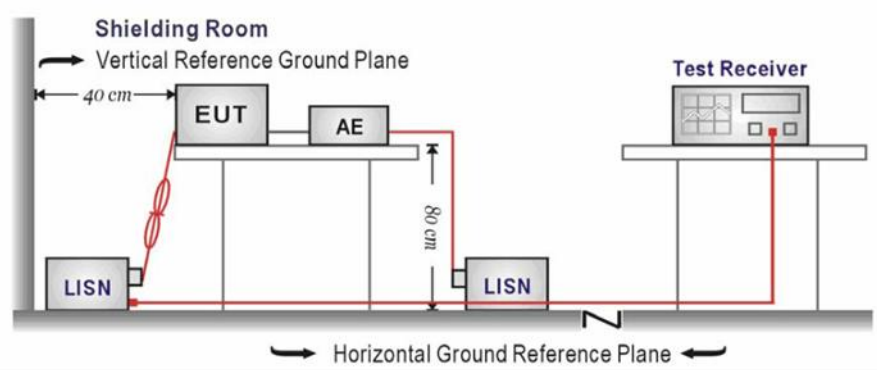
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency range (MHz)	Limit (dBuV)	
	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 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 impedances stabilization network (LISN). The LISN provides a 50 ohm /50uH 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 4.3

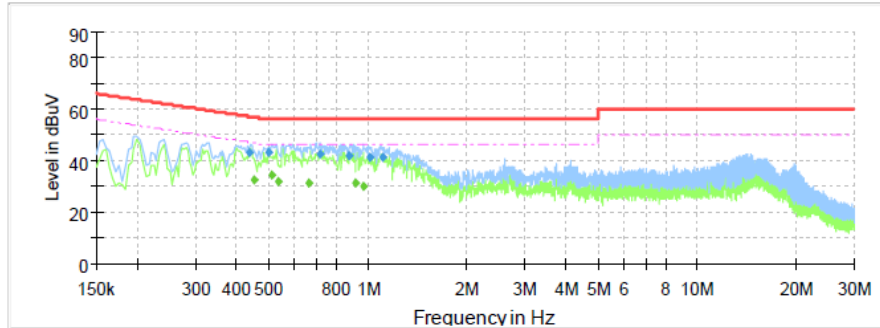
TEST RESULT

☒ Passed ☐ Not Applicable

Have pre-scan all test channel, found CH36 of 802.11a which it was worst case, so only show the worst case's data on this report.

Test Line:

L

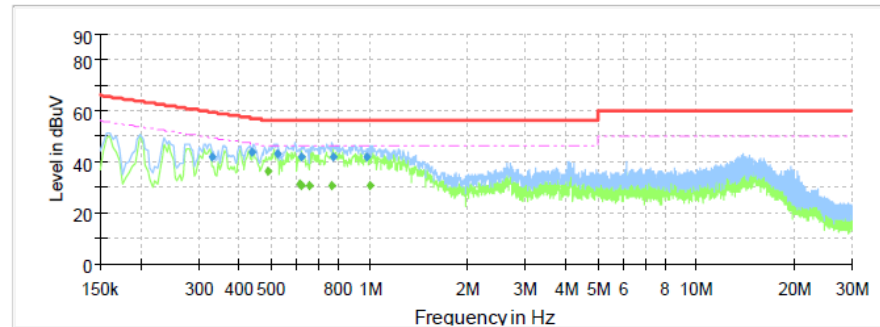


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.434538	42.89	---	57.17	14.28	L1	10.1
0.450538	---	32.37	46.87	14.50	L1	10.1
0.497431	42.89	---	56.04	13.15	L1	10.1
0.508356	---	34.40	46.00	11.60	L1	10.1
0.534475	---	31.89	46.00	14.11	L1	10.1
0.665875	---	31.52	46.00	14.48	L1	10.2
0.715994	42.48	---	56.00	13.52	L1	10.2
0.881212	41.89	---	56.00	14.11	L1	10.2
0.913212	---	31.08	46.00	14.92	L1	10.2
0.968375	---	30.10	46.00	15.90	L1	10.2
1.017688	41.30	---	56.00	14.70	L1	10.2
1.111506	41.17	---	56.00	14.83	L1	10.2

Test Line:

N



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.330869	42.09	---	59.43	17.34	N	10.3
0.438538	43.86	---	57.09	13.23	N	10.3
0.489431	---	36.55	46.18	9.63	N	10.3
0.521431	42.84	---	56.00	13.16	N	10.3
0.612788	---	31.24	46.00	14.76	N	10.3
0.616519	42.10	---	56.00	13.90	N	10.3
0.621638	---	30.56	46.00	15.44	N	10.3
0.654681	---	30.76	46.00	15.24	N	10.3
0.766619	---	30.43	46.00	15.57	N	10.3
0.774888	42.07	---	56.00	13.93	N	10.3
0.986225	42.13	---	56.00	13.87	N	10.4
1.008613	---	30.64	46.00	15.36	N	10.5

5.3. Maximum Conducted Output Power

LIMIT

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

For the 5.15~5.25GHz band:

- Outdoor AP
The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
if $G_{TX} > 6\text{dBi}$, then $P_{out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees $\leq 125\text{mW}$ (21dBm)
- Indoor AP
The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
if $G_{TX} > 6\text{dBi}$, then $P_{out} = 30 - (G_{TX} - 6)$.
- Point-to-point AP
The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
if $G_{TX} > 23\text{dBi}$, then $P_{out} = 30 - (G_{TX} - 23)$.
- Client devices
The maximum conducted output power (P_{out}) shall not exceed the lesser of 250W (24dBm).
if $G_{TX} > 6\text{dBi}$, then $P_{out} = 24 - (G_{TX} - 6)$.

For the 5.25~5.35GHz band:

The maximum conducted output power (P_{out}) shall not exceed the lesser of 250mW (24dBm) or $11\text{dBm} + 10 \log B$, where B is the 26dB emission bandwidth in MHz.
if $G_{TX} > 6\text{dBi}$, then $P_{out} = 24 - (G_{TX} - 6)$.

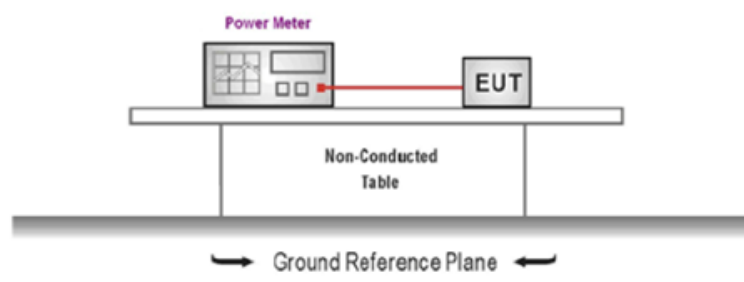
For the 5.47~5.725GHz band:

The maximum conducted output power (P_{out}) shall not exceed the lesser of 250mW (24dBm) or $11\text{dBm} + 10 \log B$, where B is the 26dB emission bandwidth in MHz.
if $G_{TX} > 6\text{dBi}$, then $P_{out} = 24 - (G_{TX} - 6)$.

For the 5.725~5.85GHz band:

- Point-to-multipoint systems (P2M)
The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
if $G_{TX} > 6\text{dBi}$, then $P_{out} = 30 - (G_{TX} - 6)$.
- Point-to-point systems (P2P)
The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was tested according to KDB789033 Section E-3-b)
2. The maximum conducted output power may be measured using a broadband AVG RF power meter.
3. Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor.
4. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.
5. Record the measurement data.

TEST MODE:

Please refer to the clause 4.3

TEST RESULT

☒ **Passed** ☐ **Not Applicable**

5.4. Power Spectral Density

LIMIT

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

For the 5.15~5.25GHz band:

- Outdoor AP
The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
if $G_{TX} > 6\text{dBi}$, then $\text{PSD} = 17 - (G_{TX} - 6)$.
- Indoor AP
The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
if $G_{TX} > 6\text{dBi}$, then $\text{PSD} = 17 - (G_{TX} - 6)$.
- Point-to-point AP
The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
if $G_{TX} > 23\text{dBi}$, then $\text{PSD} = 17 - (G_{TX} - 23)$.
- Client devices
The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
if $G_{TX} > 6\text{dBi}$, then $\text{PSD} = 11 - (G_{TX} - 6)$.

For the 5.25~5.35GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
if $G_{TX} > 6\text{dBi}$, then $\text{PSD} = 11 - (G_{TX} - 6)$.

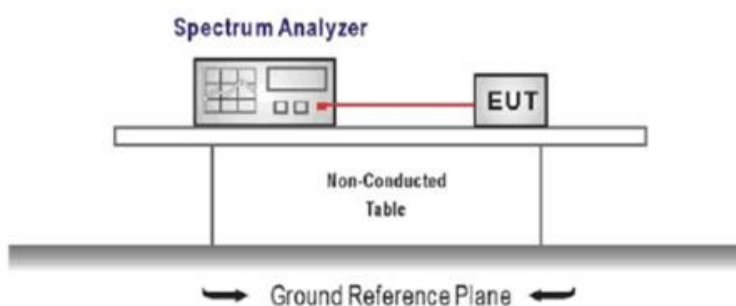
For the 5.47~5.725GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
if $G_{TX} > 6\text{dBi}$, then $\text{PSD} = 11 - (G_{TX} - 6)$.

For the 5.725~5.85GHz band:

- Point-to-multipoint systems (P2M)
The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.
if $G_{TX} > 6\text{dBi}$, then $\text{PSD} = 30 - (G_{TX} - 6)$.
- Point-to-point systems (P2P)
The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.

TEST CONFIGURATION



TEST PROCEDURE

1. According KDB 789033 D02 – Section F
2. Analyzer was setting as follow:
Center frequency: test channel
Span was set to encompass the entire emission bandwidth of the signal
RBW=1MHz for devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz
RBW=500kHz for devices operating in the band 5.725-5.85 GHz
VBW ≥ 3 RBW
Number of sweep points $> 2 \times (\text{span}/\text{RBW})$
Sweep time = auto
Detector = Peak
Trigger was set to free run for all modes, trace was averaged over 100 sweeps

3. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

TEST MODE:

Please refer to the clause 4.3

TEST RESULT

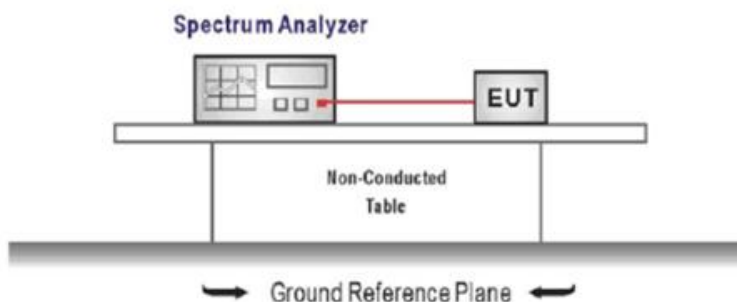
☒ **Passed** ☐ **Not Applicable**

5.5. 26dB bandwidth and 99% Occupancy bandwidth

LIMIT

The bandwidth at 26dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in KDB 789033 D02 , and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26dB bandwidth.

TEST CONFIGURATION



TEST PROCEDURE

1. According KDB 789033 D02 – Section C, 26dB bandwidth test as follow
 - a) Set RBW = approximately 1% of the emission bandwidth.
 - b) Set the VBW > RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
2. According KDB 789033 D02 – Section D, 99% bandwidth test as follow
 - a). Set center frequency to the nominal EUT channel center frequency.
 - b). Set span = 1.5 times to 5.0 times the OBW.
 - c). Set RBW = 1% to 5% of the OBW
 - d). Set VBW ≥ 3 RBW
 - e). Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
 - f). Use the 99% power bandwidth function of the instrument

TEST MODE:

Please refer to the clause 4.3

TEST RESULT

☒ Passed ☐ Not Applicable

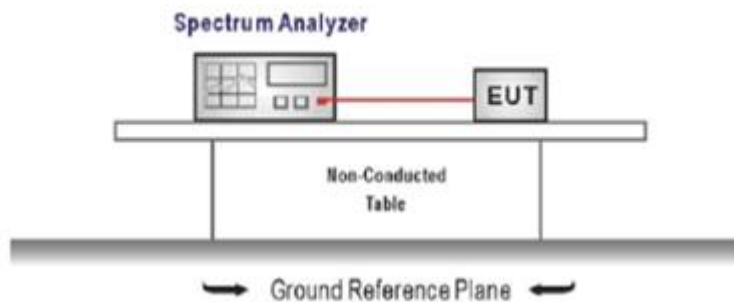
5.6. 6dB Bandwidth

LIMIT

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

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

TEST CONFIGURATION



TEST PROCEDURE

1. C Connect the antenna port(s) to the spectrum analyzer input.
2. Configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).
Center Frequency = test channel center frequency
Span = 2 x emission bandwidth
RBW = 100 kHz, VBW $\geq 3 \times$ RBW
Sweep time = auto couple
Detector = Peak
Trace mode = max hold
3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission, and record the pertinent measurements.

TEST MODE:

Please refer to the clause 4.3

TEST RESULT

☒ Passed ☐ Not Applicable

5.7. Band edge

LIMIT

FCC CFR Title 47 Part 15 Subpart E Section 15.407(b)

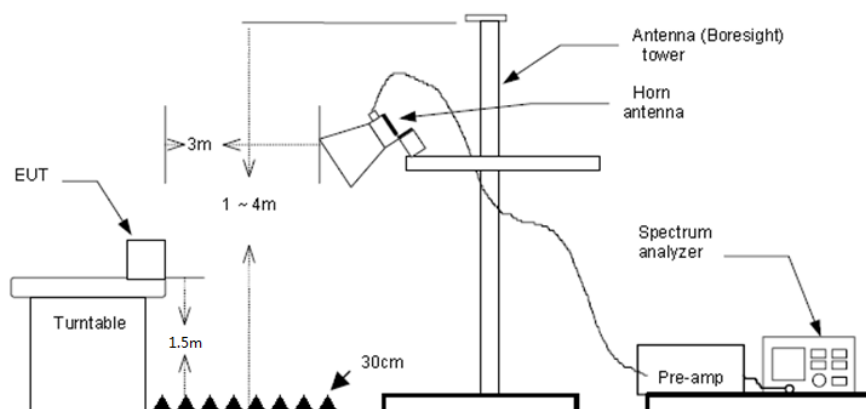
Un-restricted band emissions above 1GHz			
Operating Band	Frequency	EIRP Limit	Value
5150-5250MHz	Above 1GHz	-27dBm/MHz(68.2dBuV/m)@3m	Peak
5250-5350MHz	Above 1GHz	-27dBm/MHz(68.2dBuV/m)@3m	Peak
5470-5725MHz	Above 1GHz	-27dBm/MHz(68.2dBuV/m)@3m	Peak
5725-5850 MHz	1GHz-5.65GHz	-27 dBm/MHz(68.2dBuV/m)@3m	Peak
	5.65GHz-5.7GHz	-27*dBm/MHz to 10dBm/MHz (68.2* dBuV/m to 105.2dBuV/m)	Peak
	5.7GHz-5.72GHz	10*dBm/MHz to 15.6dBm/MHz (105.2*dBuV/m to 110.8dBuV/m)	Peak
	5.72GHz-5.725GHz	15.6*dBm/MHz to 27dBm/MHz (110.8dBuV/m to* 122.2dBuV/m)	Peak
	5.85GHz-5.855GHz	27dBm/MHz to 15.6*dBm/MHz (122.2dBuV/m to110.8* dBuV/m)	Peak
	5.855GHz-5.875GHz	15.6dBm/MHz to 10*dBm/MHz (110.8dBuV/m to 105.2* dBuV/m)	Peak
	5.875GHz-5.925GHz	10dBm/MHz to -27*dBm/MHz (105.2dBuV/m to 68.2* dBuV/m)	Peak
	Above 5.925GHz	-27 dBm/MHz(68.2dBuV/m)@3m	Peak

* Increase/Decreases with the linearity of the frequency.

For emission above 1GHz and in restricted band, according to FCC KDB 789033 D02 General UNII Test Procedure, all emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit. $E[dBuV/m] = EIRP[dBm] + 95.2$, for $d = 3$ meters.

TEST CONFIGURATION

Radiated:



TEST PROCEDURE

1. The EUT was setup and tested according to ANSI C63.10 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 on radiated measurement.
5. The receiver set as follow:
RBW=1MHz, VBW=3MHz PEAK detector for Peak value.
RBW=1MHz, VBW=3MHz RMS detector for Average value.

TEST MODE:

Please refer to the clause 4.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

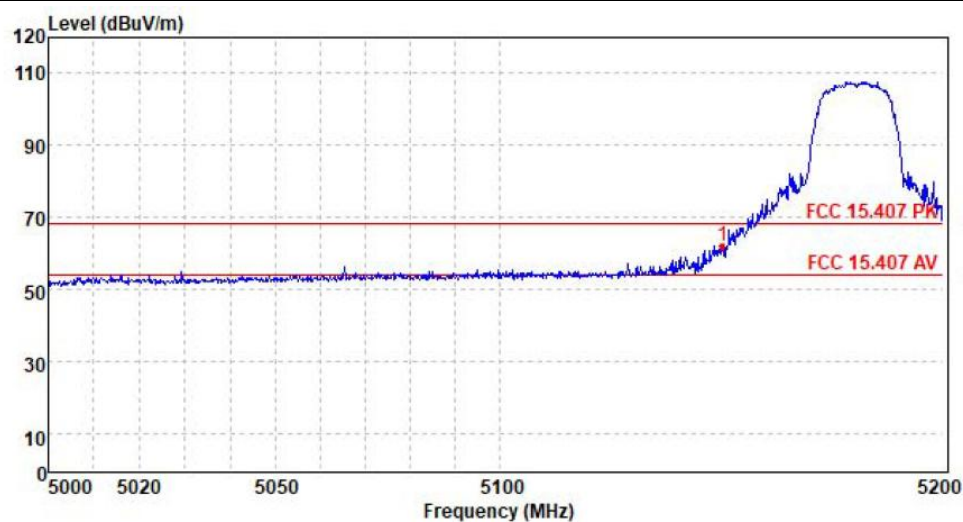
U-NII-1 & U-NII-2A

Worst mode: 802.11a

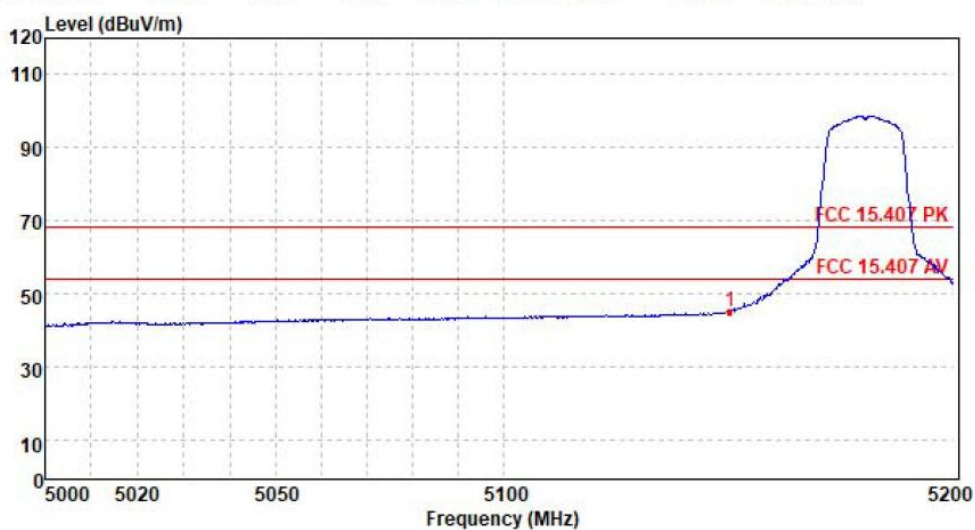
Test channel: CH_L

Polarization:

Horizontal



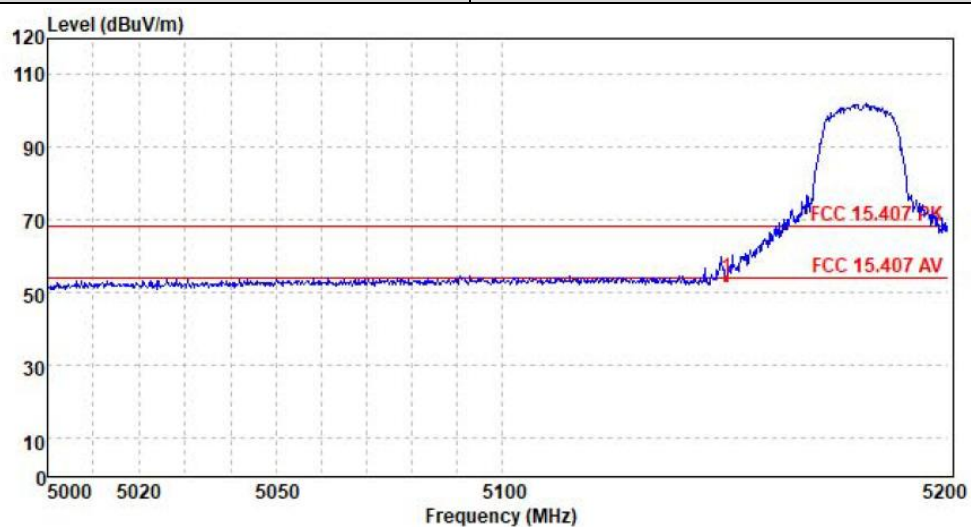
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5150.07	54.01	31.90	6.12	40.02	10.00	62.01	68.20	-6.19	Peak



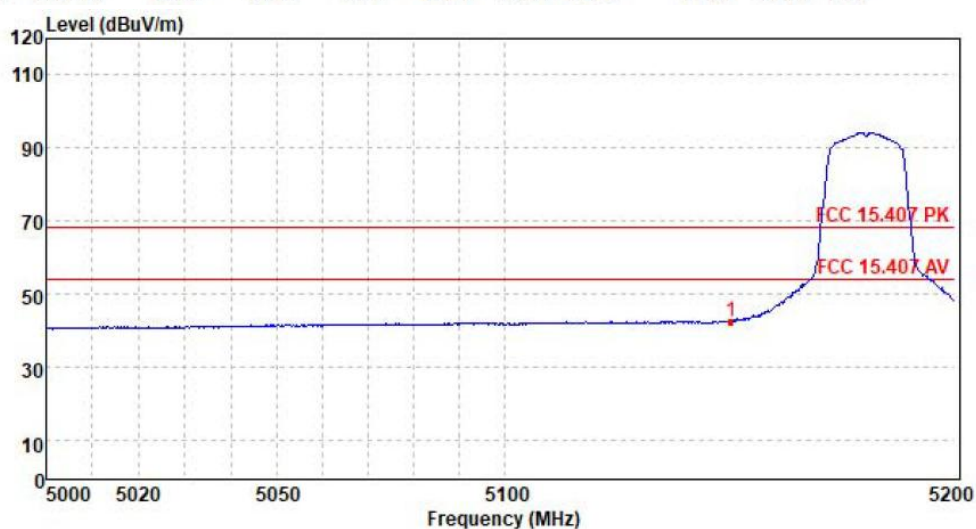
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5150.07	37.18	31.90	6.12	40.02	10.00	45.18	54.00	-8.82	Average

Polarization:

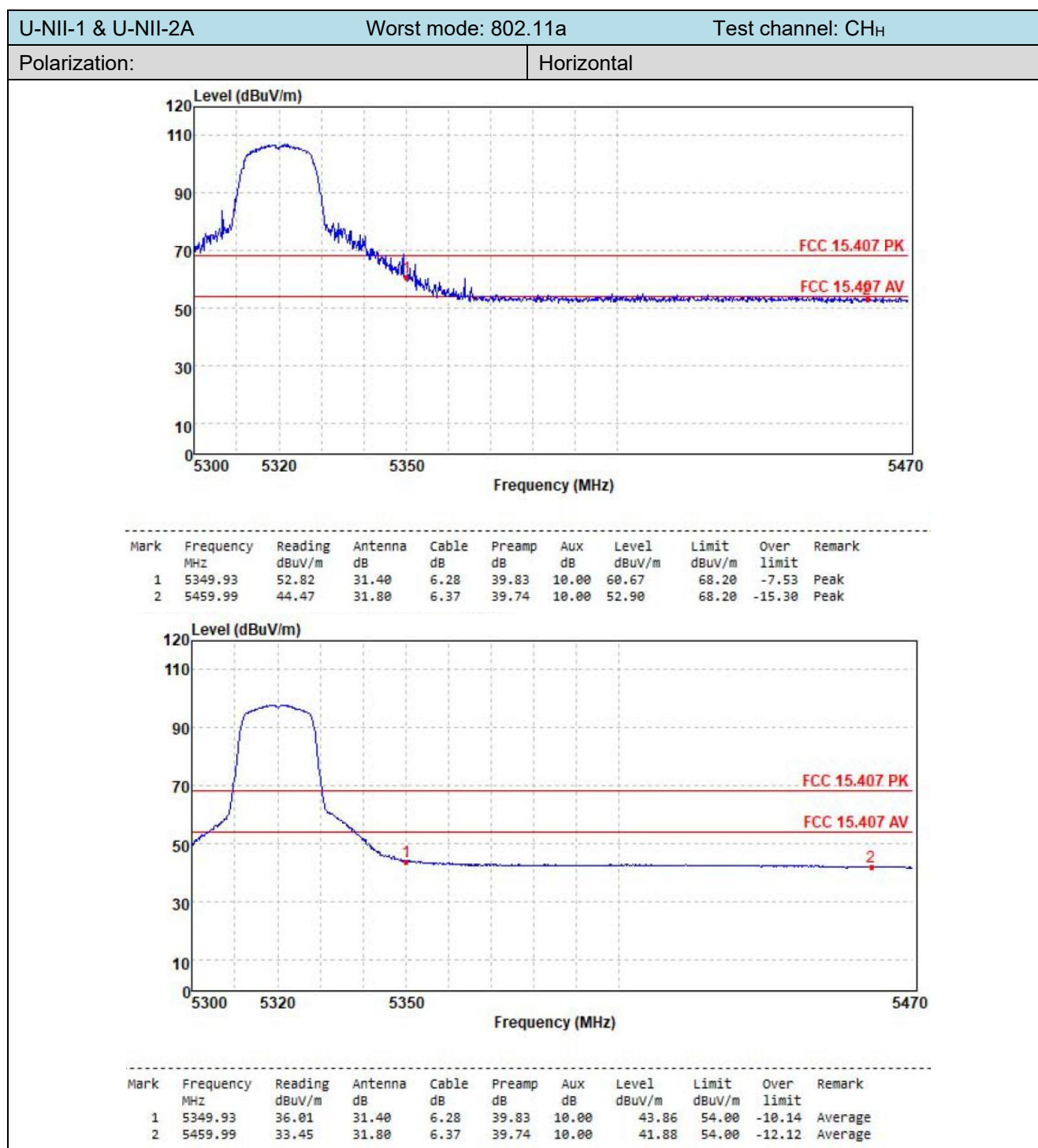
Vertical



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5150.07	46.05	31.90	6.12	40.02	10.00	54.05	68.20	-14.15	Peak

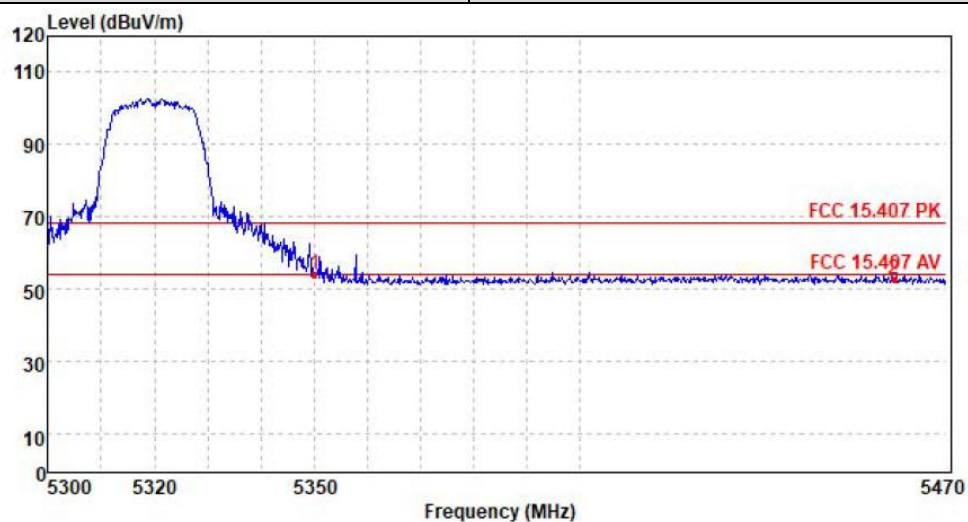


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5150.07	34.43	31.90	6.12	40.02	10.00	42.43	54.00	-11.57	Average

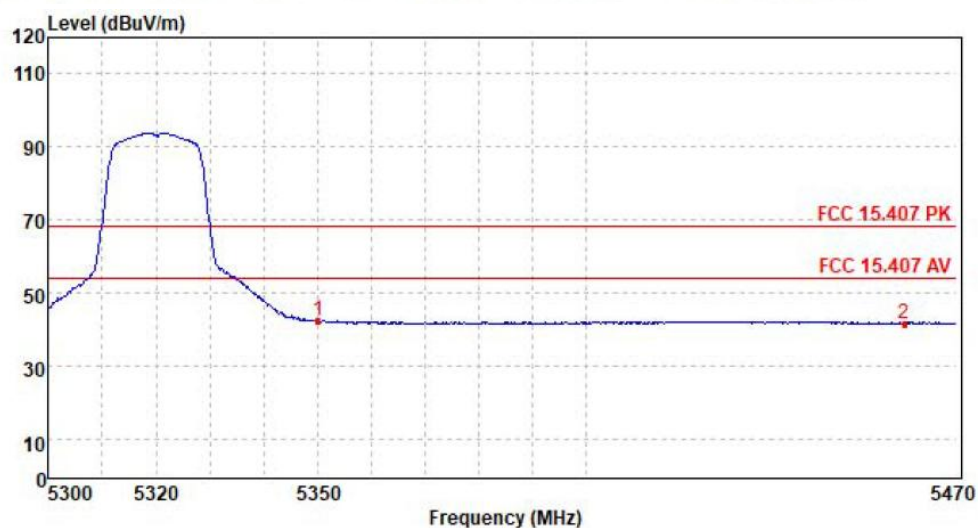


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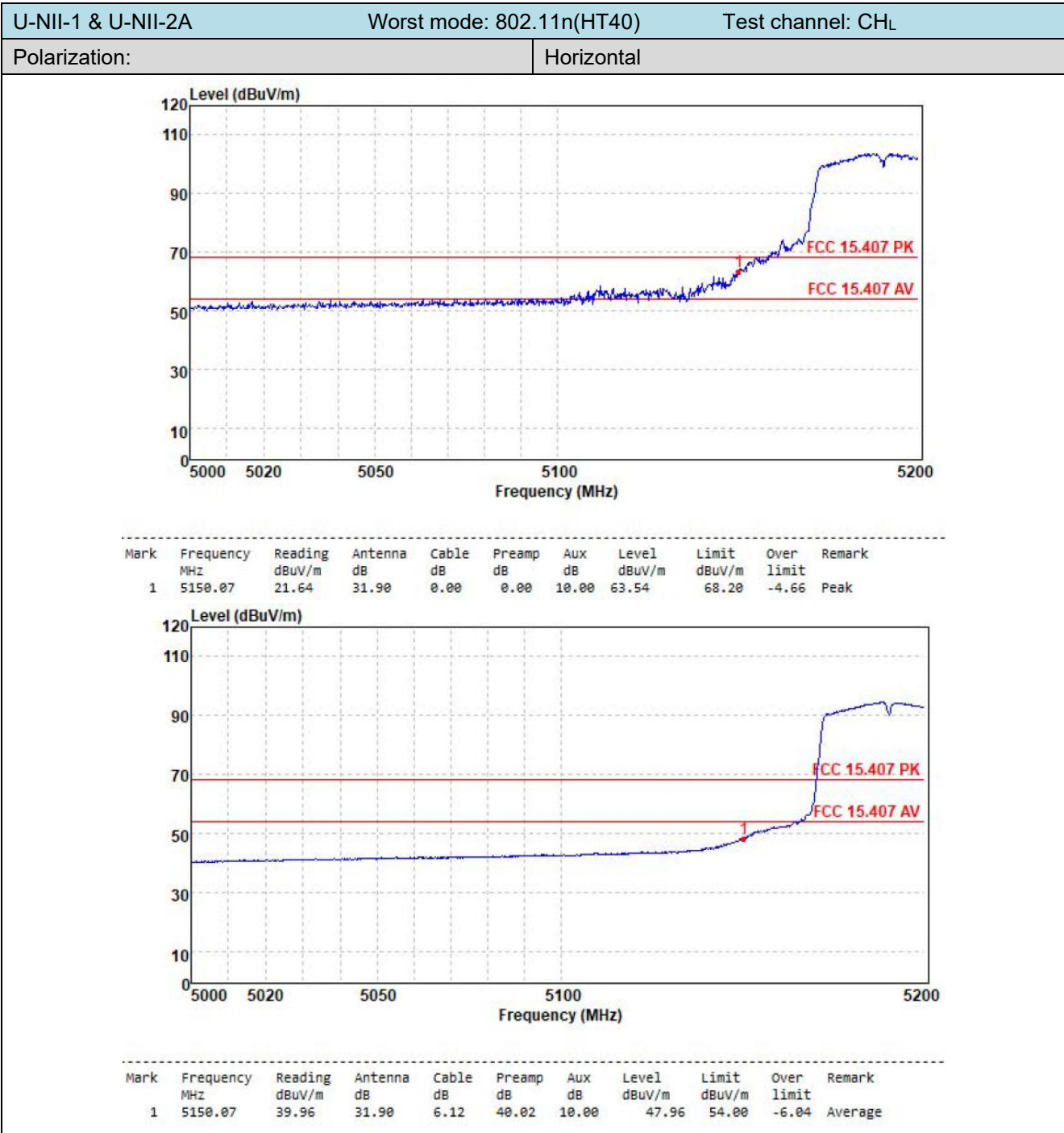
Vertical



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5349.93	46.05	31.40	6.28	39.83	10.00	53.90	68.20	-14.30	Peak
2	5459.99	44.41	31.80	6.37	39.74	10.00	52.84	68.20	-15.36	Peak

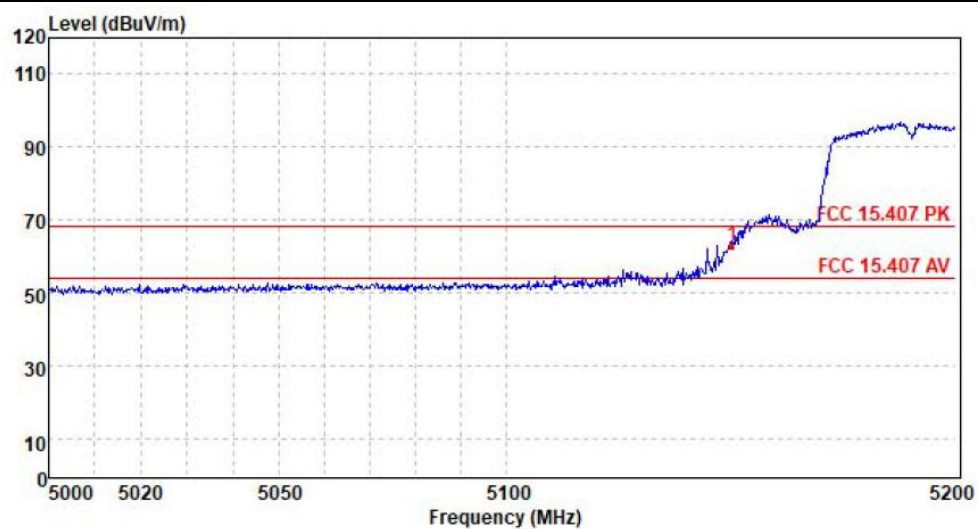


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5349.93	34.40	31.40	6.28	39.83	10.00	42.25	54.00	-11.75	Average
2	5459.99	33.24	31.80	6.37	39.74	10.00	41.67	54.00	-12.33	Average

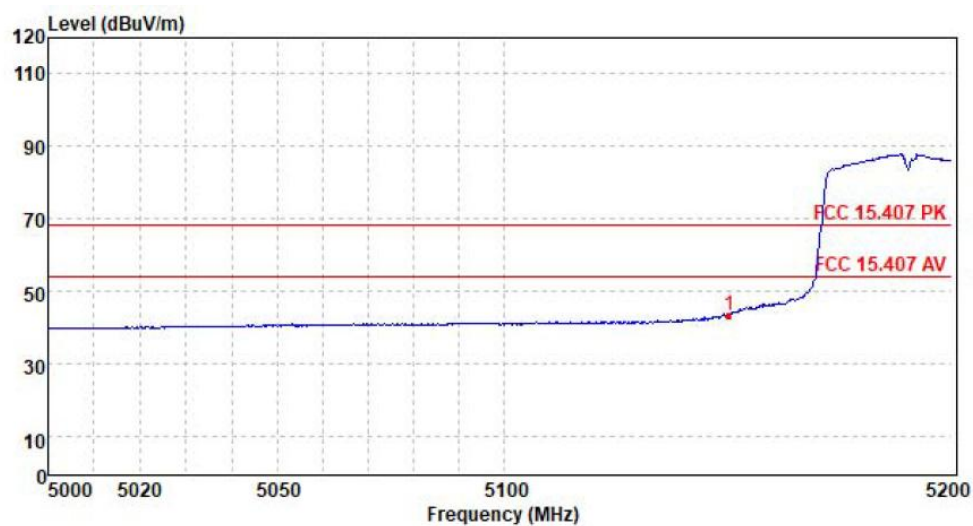


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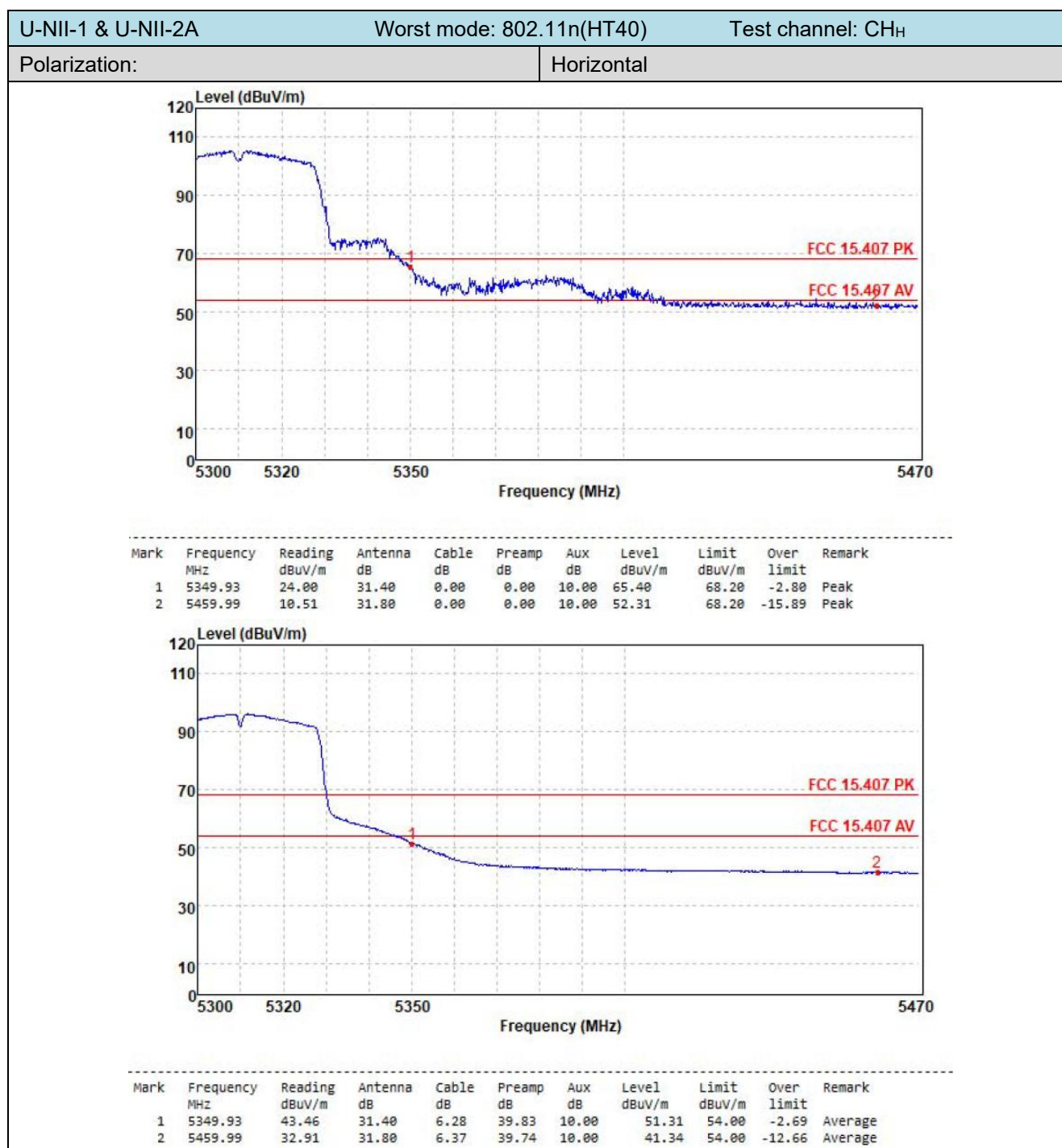
Vertical



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5150.07	54.95	31.90	6.12	40.02	10.00	62.95	68.20	-5.25	Peak

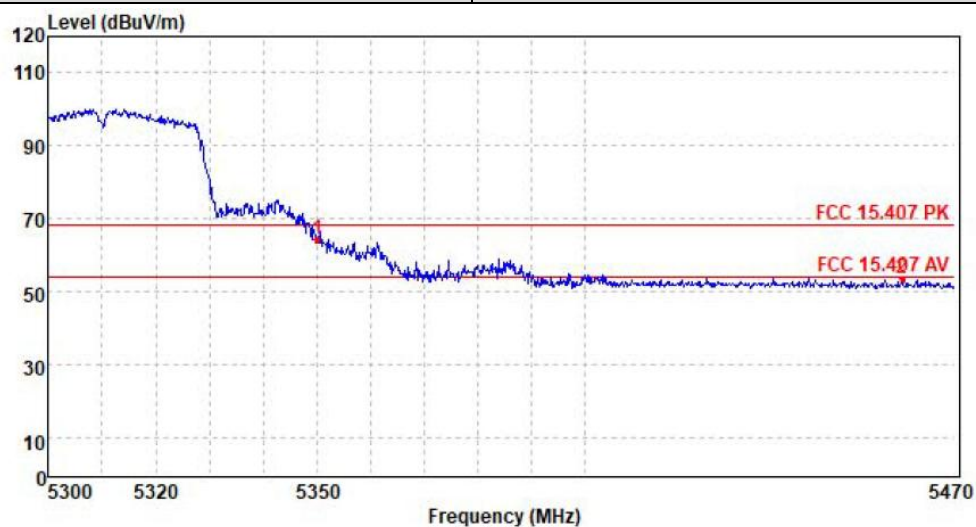


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5150.07	35.40	31.90	6.12	40.02	10.00	43.40	54.00	-10.60	Average

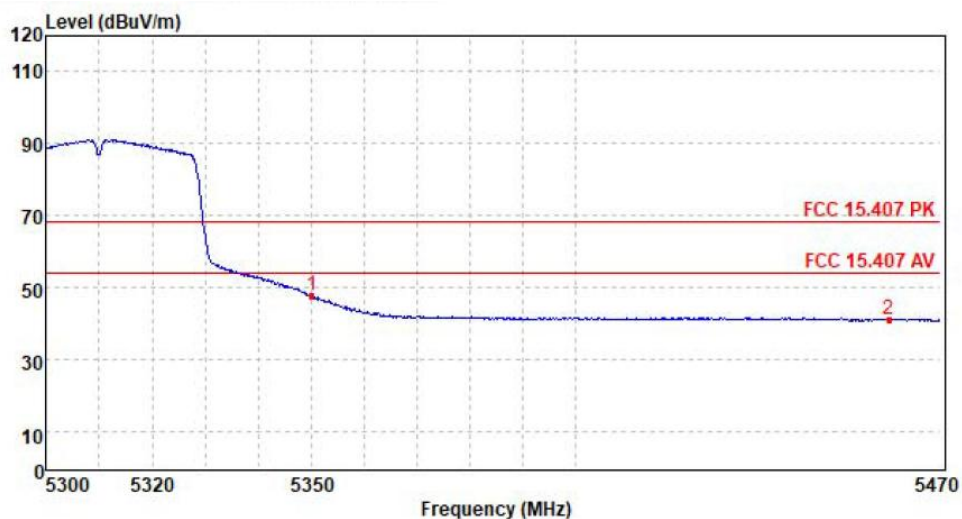


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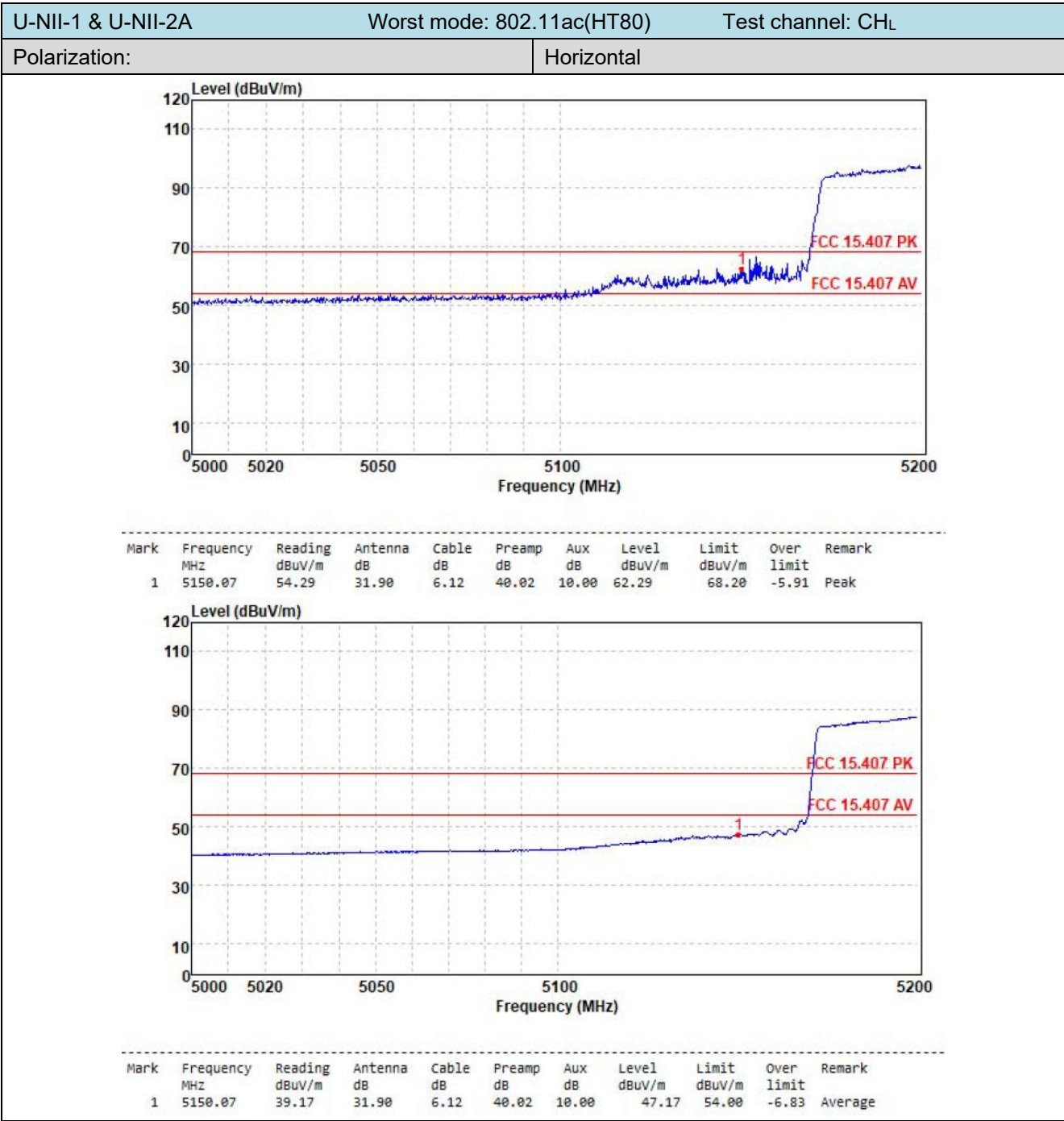
Vertical



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5349.93	56.34	31.40	6.28	39.83	10.00	64.19	68.20	-4.01	Peak
2	5459.99	44.92	31.80	6.37	39.74	10.00	53.35	68.20	-14.85	Peak

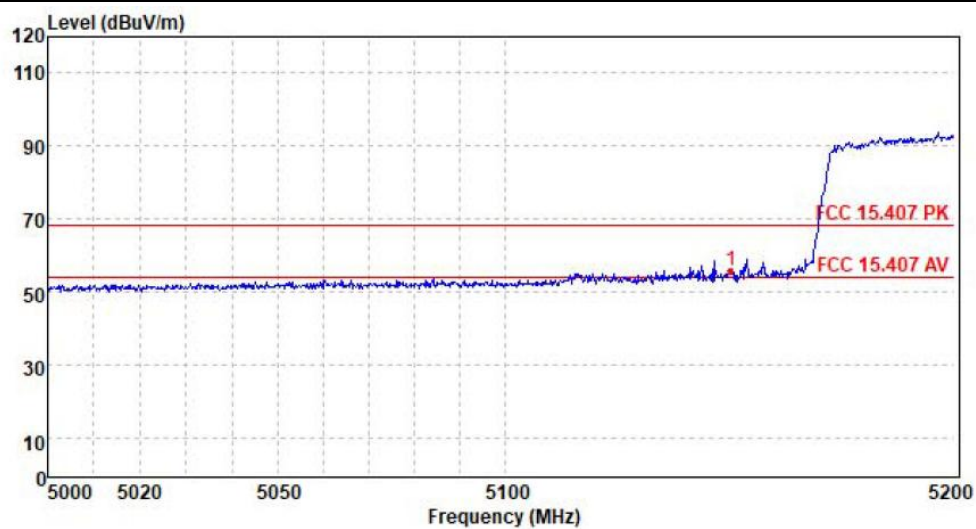


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5349.93	40.09	31.40	6.28	39.83	10.00	47.94	54.00	-6.06	Average
2	5459.99	32.58	31.80	6.37	39.74	10.00	41.01	54.00	-12.99	Average

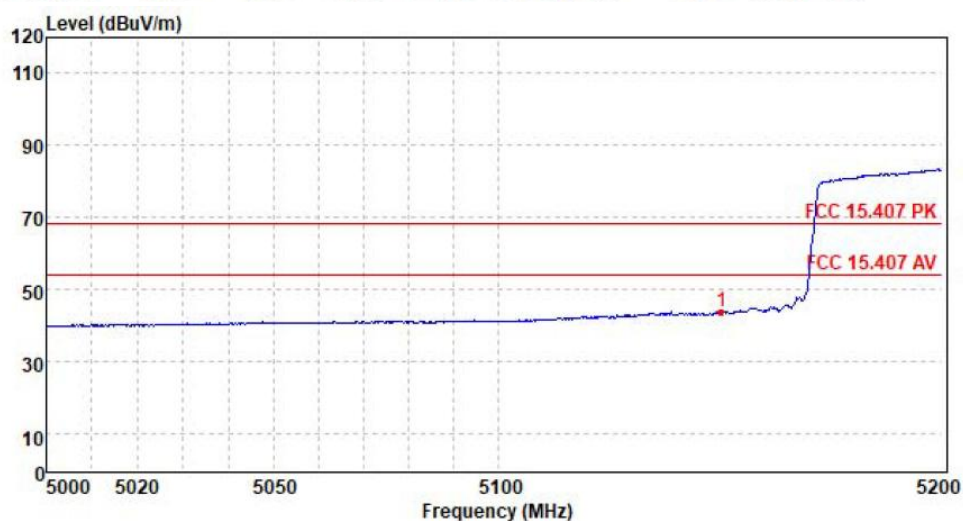


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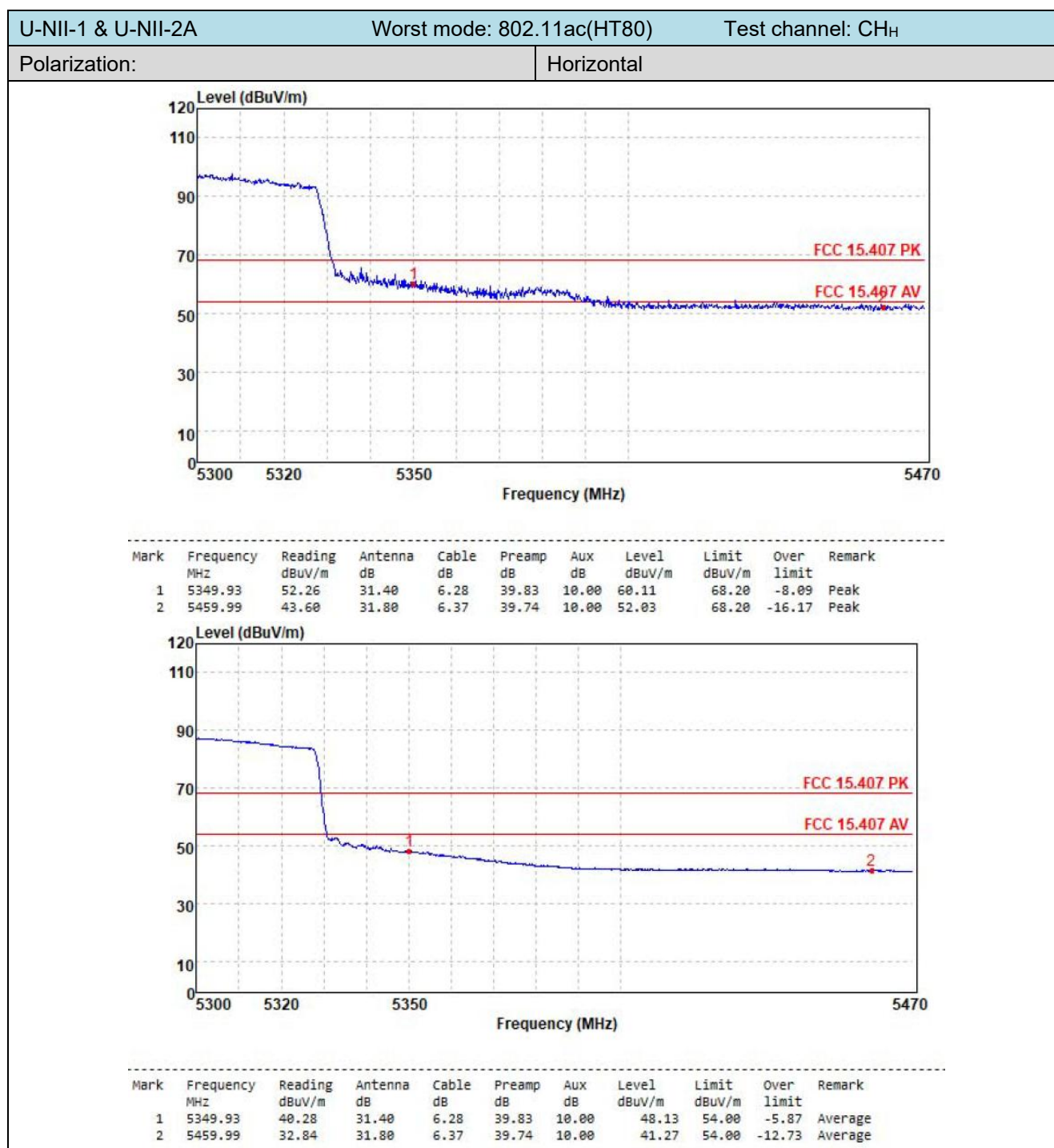
Vertical



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5180.07	47.79	31.90	6.12	40.02	10.00	55.79	68.20	-12.41	Peak

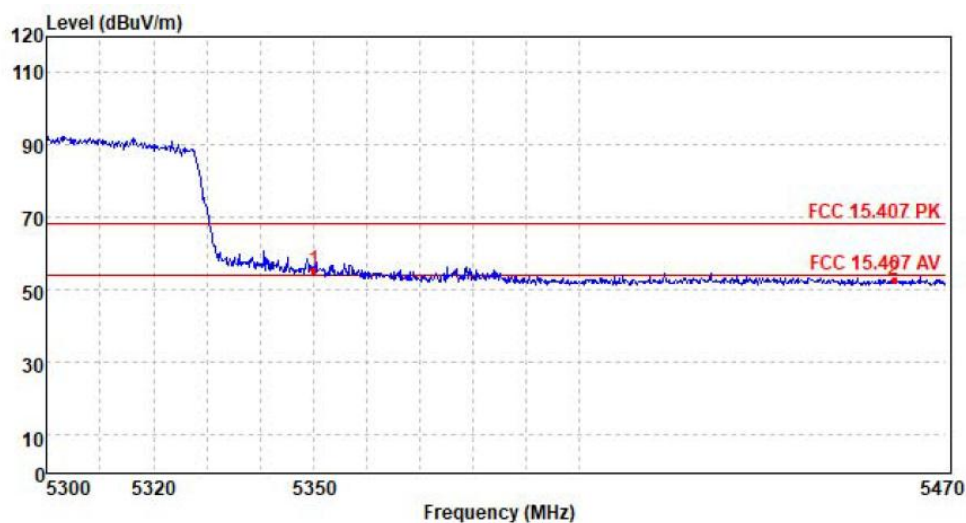


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5180.07	35.54	31.90	6.12	40.02	10.00	43.54	54.00	-10.46	Average

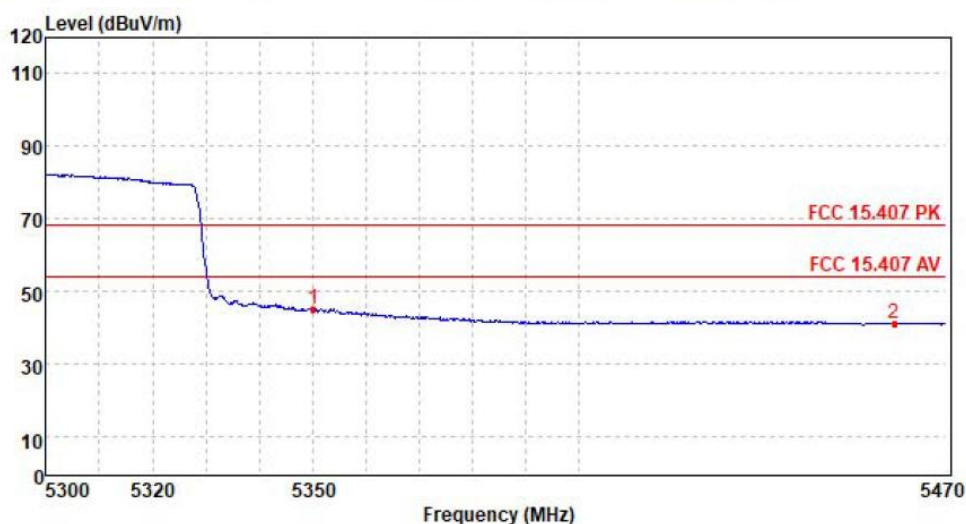


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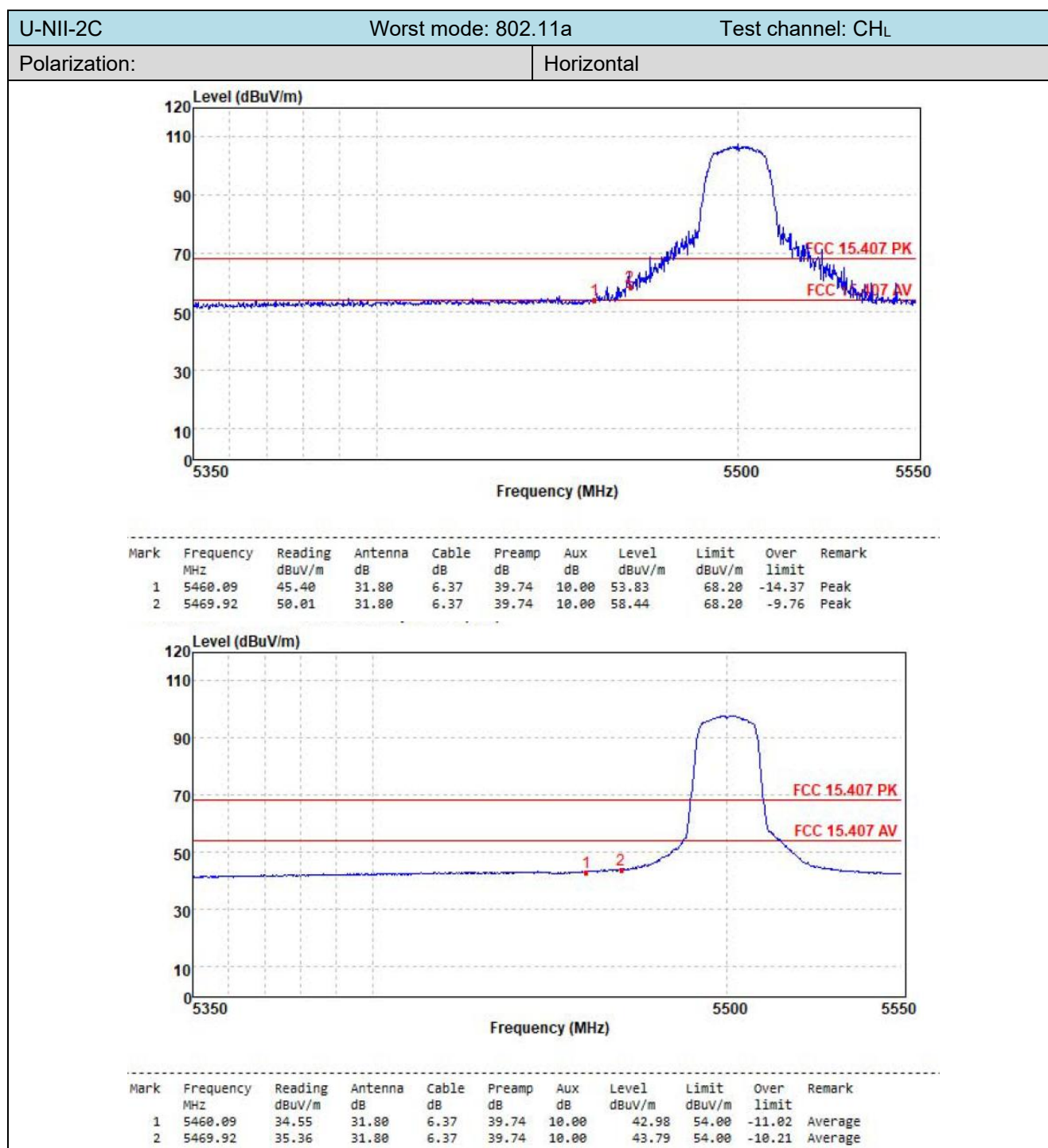
Vertical



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5349.93	47.43	31.40	6.28	39.83	10.00	55.28	68.20	-12.92	Peak
2	5459.99	44.26	31.80	6.37	39.74	10.00	52.69	68.20	-15.51	Peak

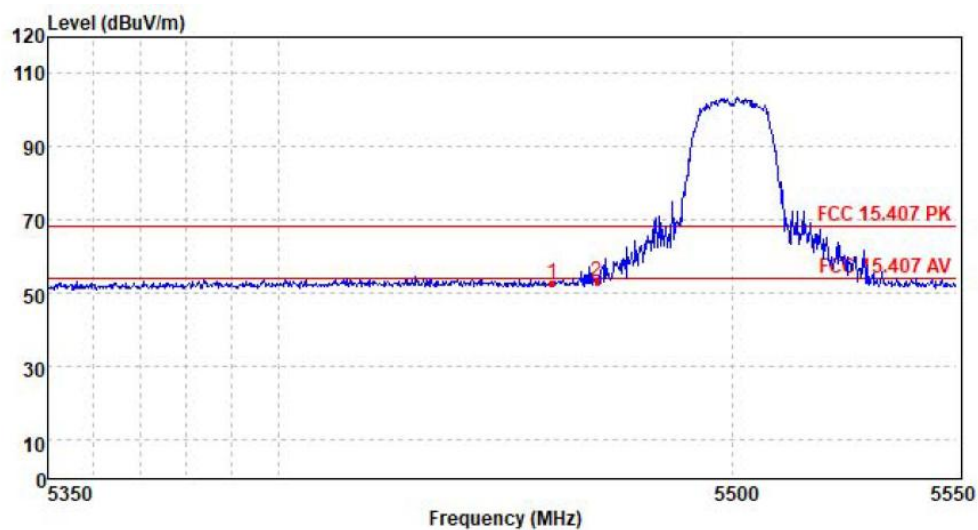


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5349.93	37.21	31.40	6.28	39.83	10.00	45.06	54.00	-8.94	Average
2	5459.99	32.69	31.80	6.37	39.74	10.00	41.12	54.00	-12.88	Average

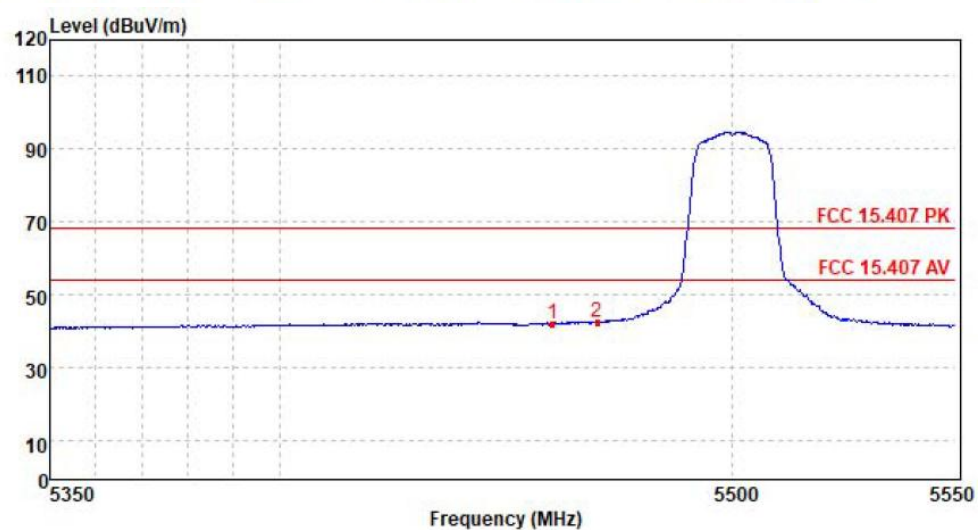


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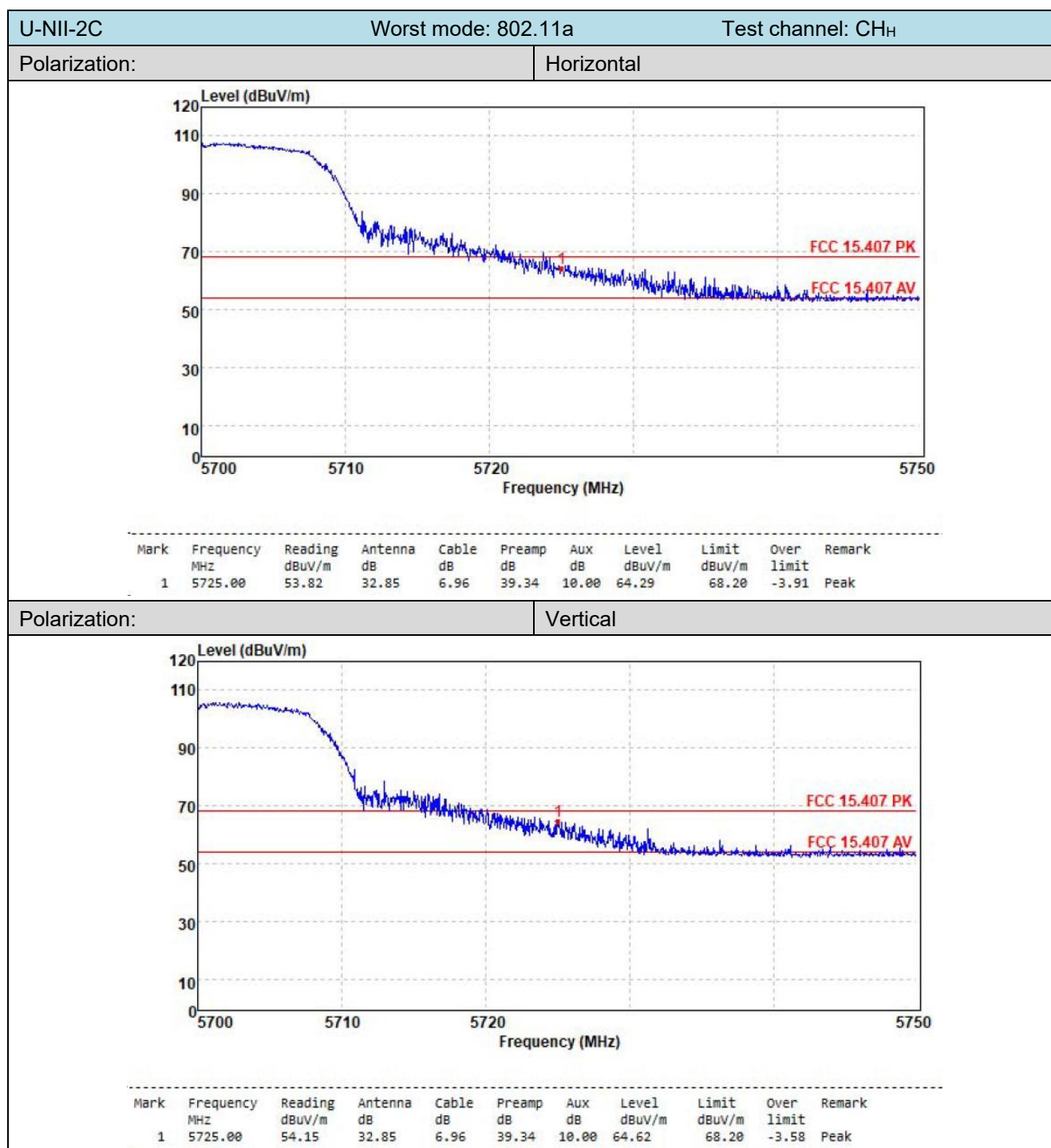
Vertical

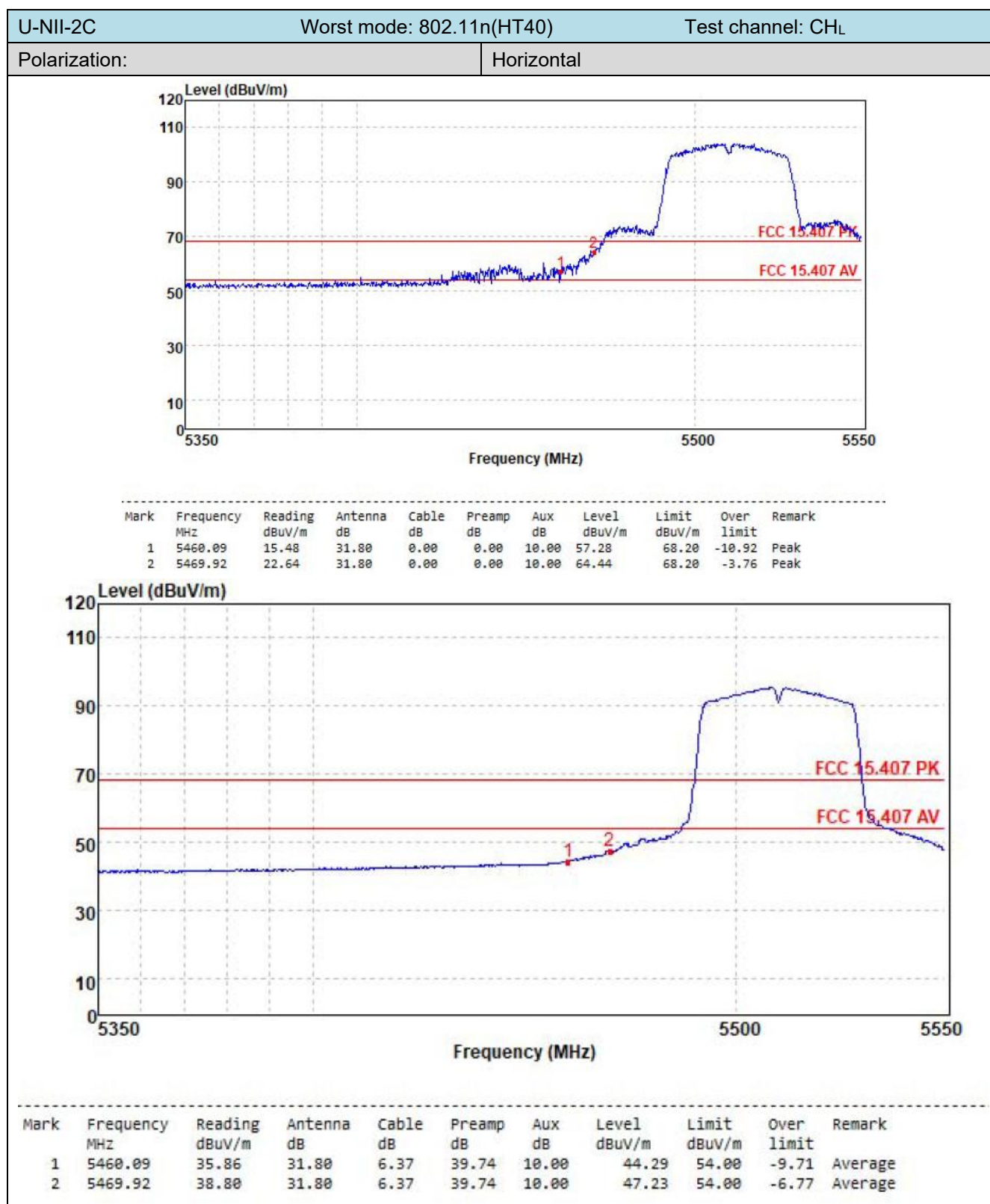


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5460.09	44.35	31.80	6.37	39.74	10.00	52.78	68.20	-15.42	Peak
2	5469.92	44.53	31.80	6.37	39.74	10.00	52.96	68.20	-15.24	Peak



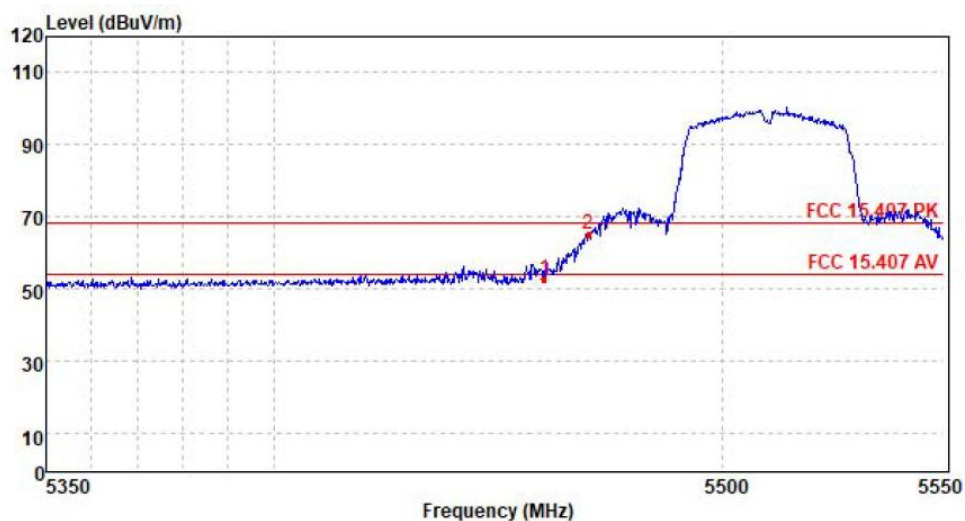
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5460.09	33.41	31.80	6.37	39.74	10.00	41.84	54.00	-12.16	Average
2	5469.92	34.05	31.80	6.37	39.74	10.00	42.48	54.00	-11.52	Average



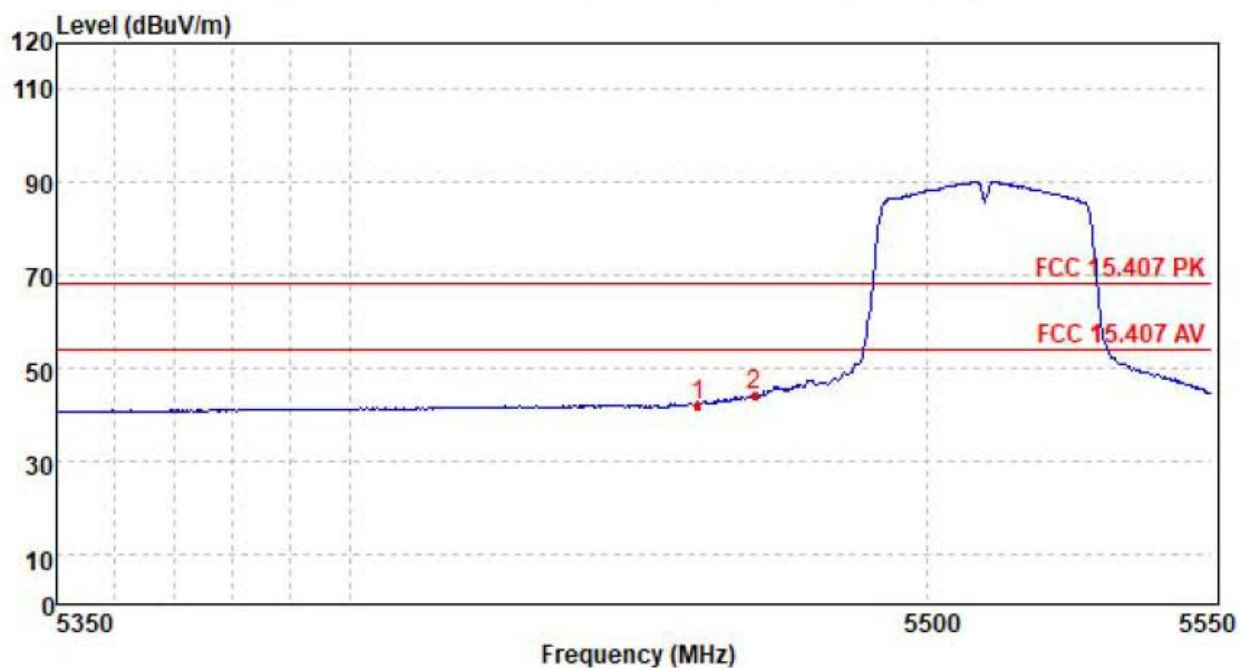


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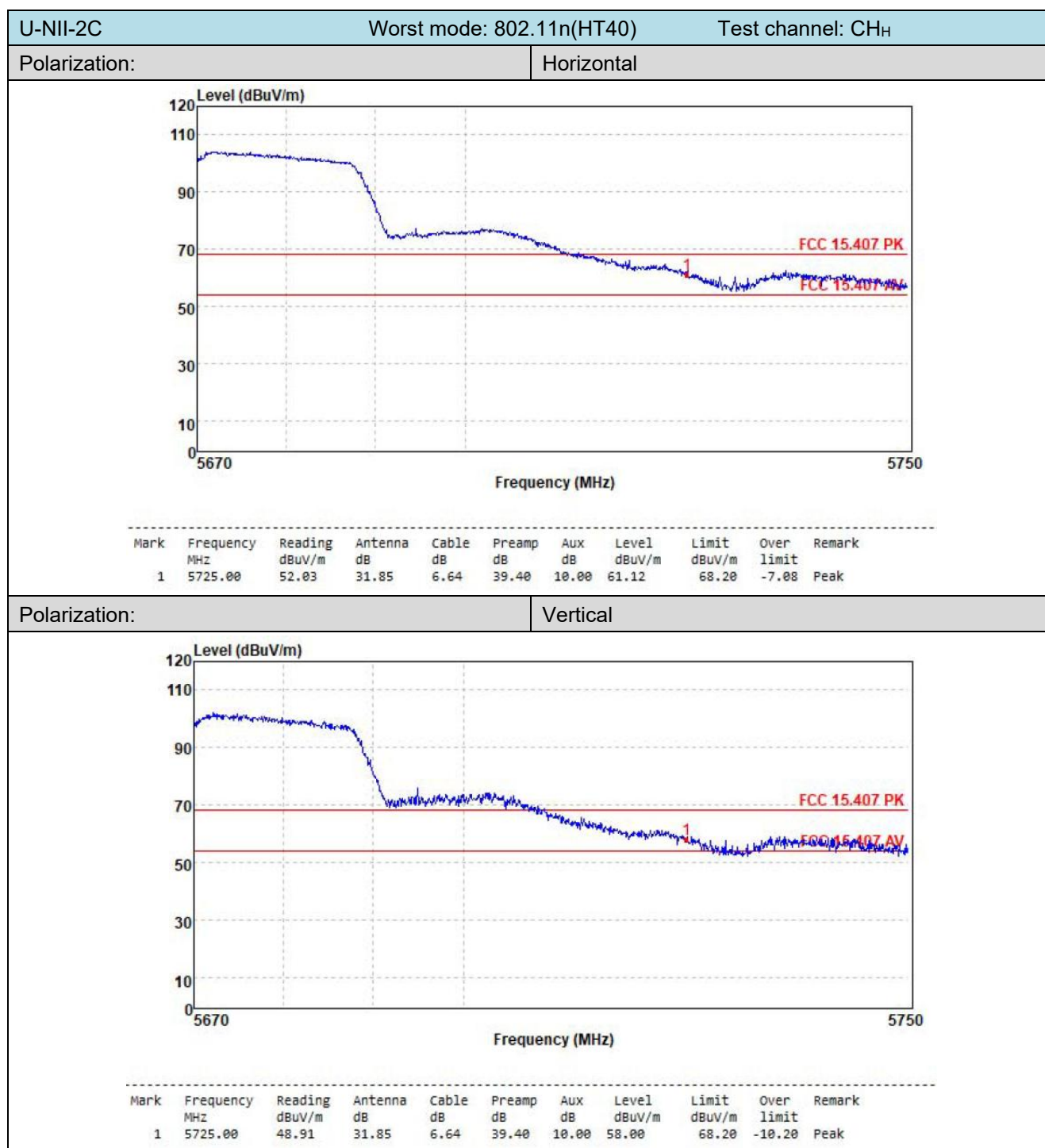
Vertical

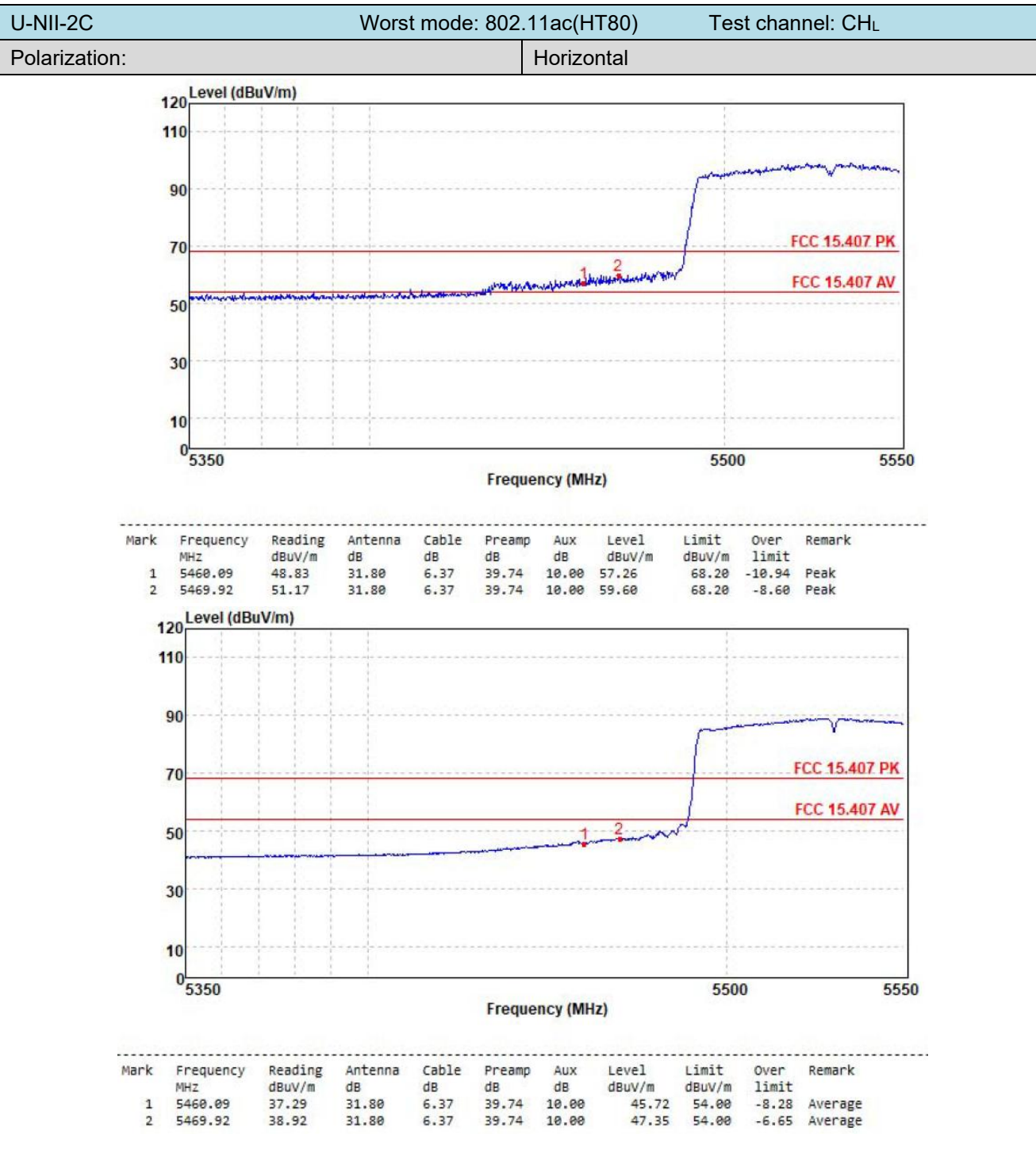


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5460.09	44.36	31.80	6.37	39.74	10.00	52.79	68.20	-15.41	Peak
2	5469.92	56.67	31.80	6.37	39.74	10.00	65.10	68.20	-3.10	Peak



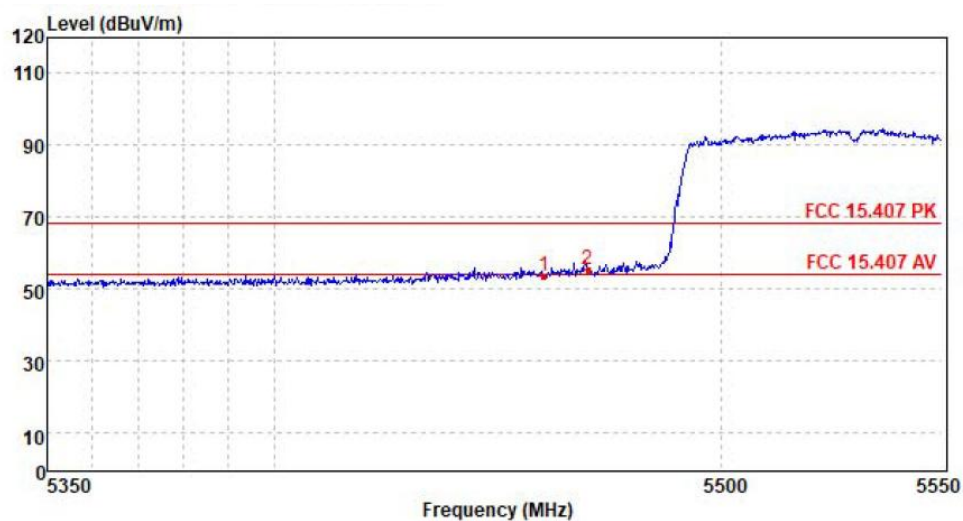
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5460.09	33.71	31.80	6.37	39.74	10.00	42.14	54.00	-11.86	Average
2	5469.92	35.65	31.80	6.37	39.74	10.00	44.08	54.00	-9.92	Average



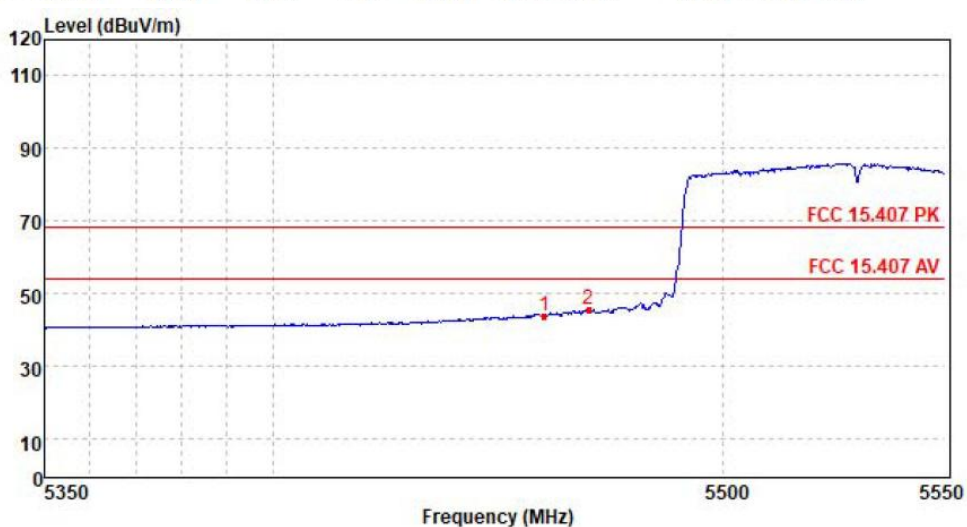


Polarization:

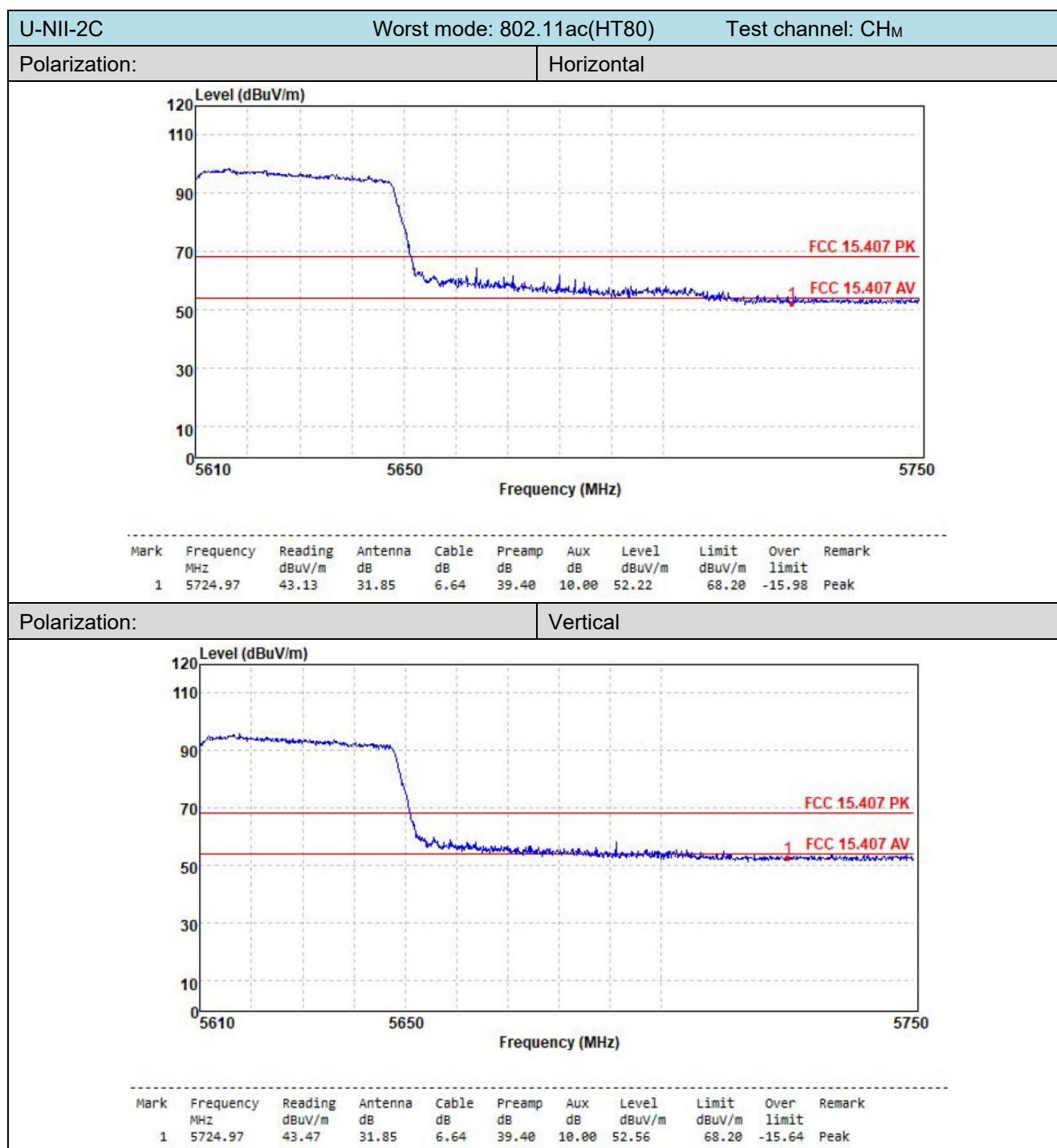
Vertical

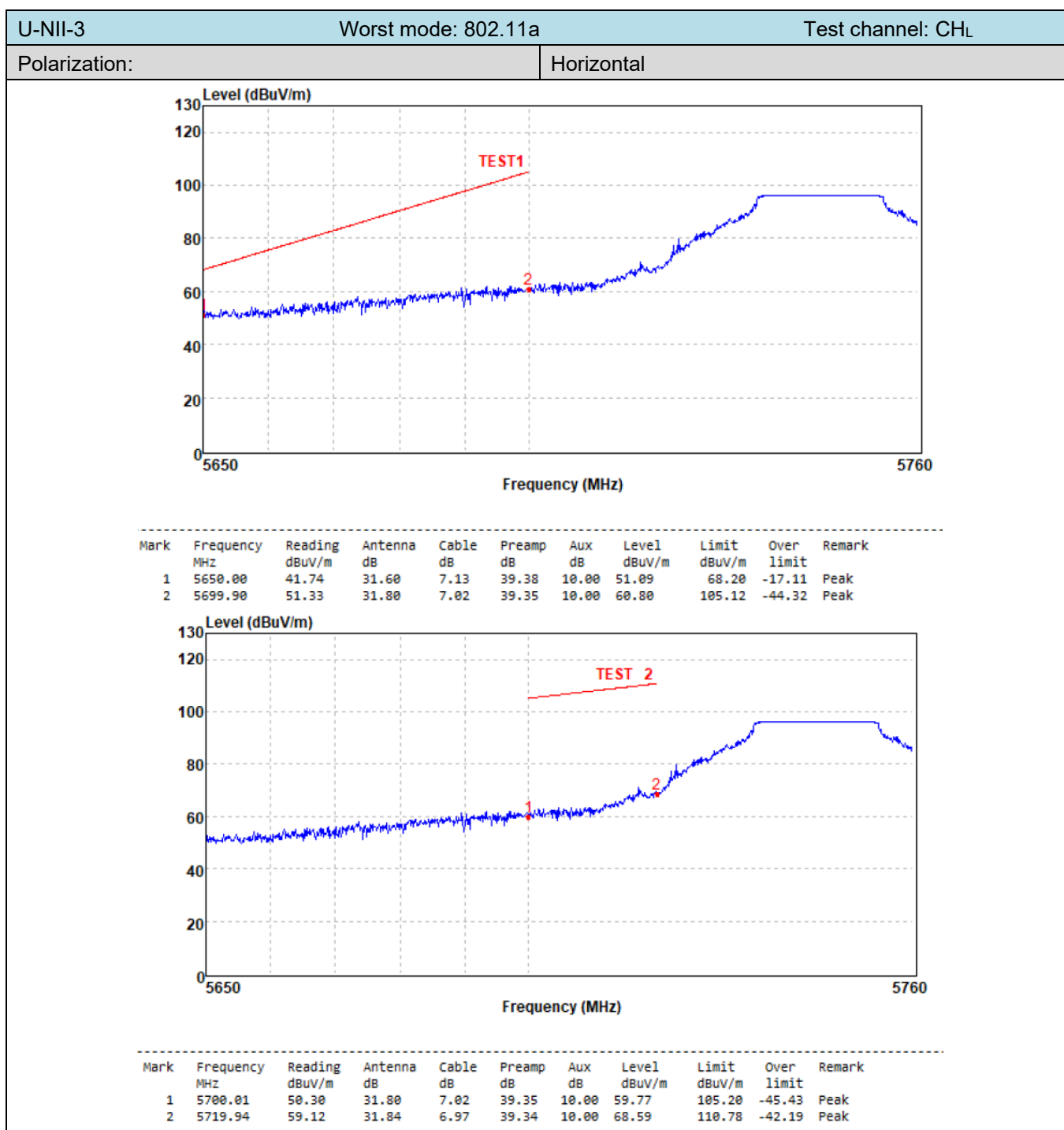


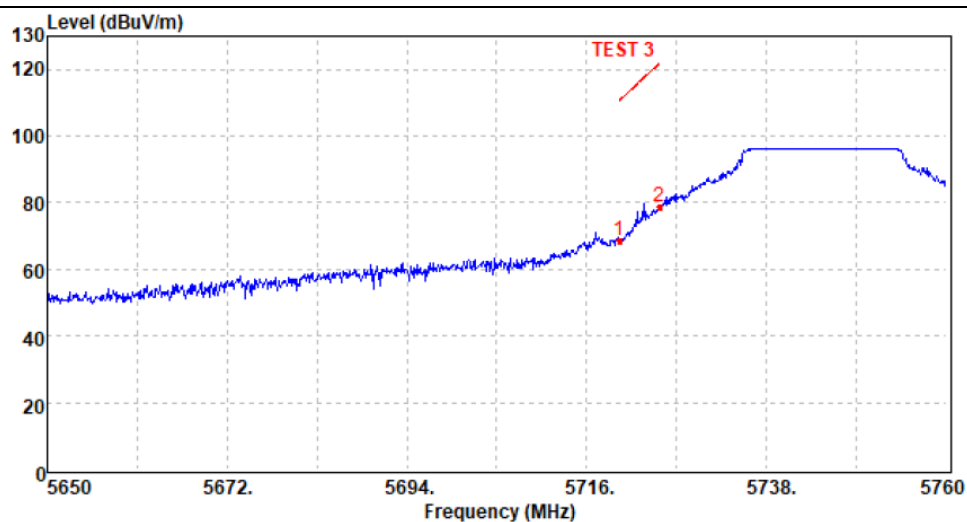
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5460.09	45.24	31.80	6.37	39.74	10.00	53.67	68.20	-14.53	Peak
2	5469.92	46.94	31.80	6.37	39.74	10.00	55.37	68.20	-12.83	Peak



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5460.09	35.43	31.80	6.37	39.74	10.00	43.86	54.00	-10.14	Average
2	5469.92	36.99	31.80	6.37	39.74	10.00	45.42	54.00	-8.58	Average







Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5720.05	59.31	31.84	6.97	39.34	10.00	68.78	110.90	-42.12	Peak
2	5724.90	69.06	31.85	6.96	39.34	10.00	78.53	121.97	-43.44	Peak

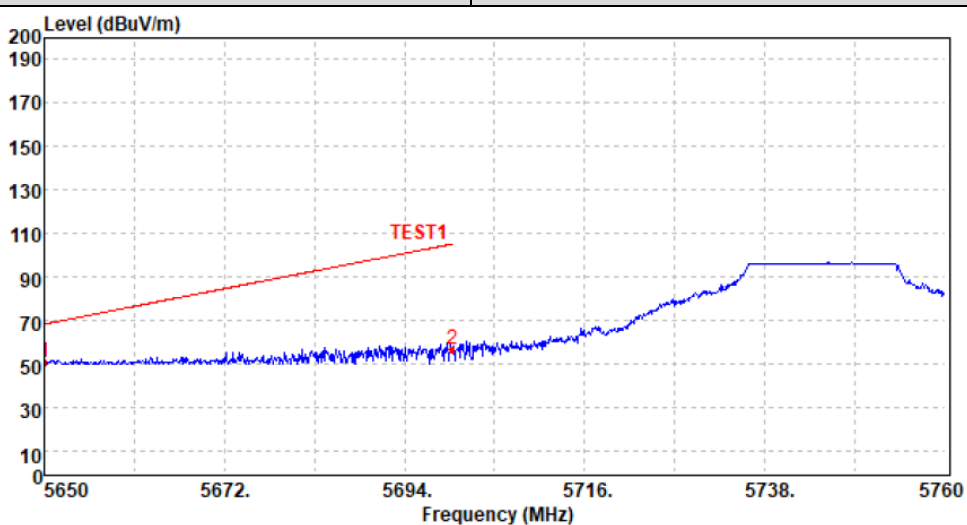
U-NII-3

Worst mode: 802.11a

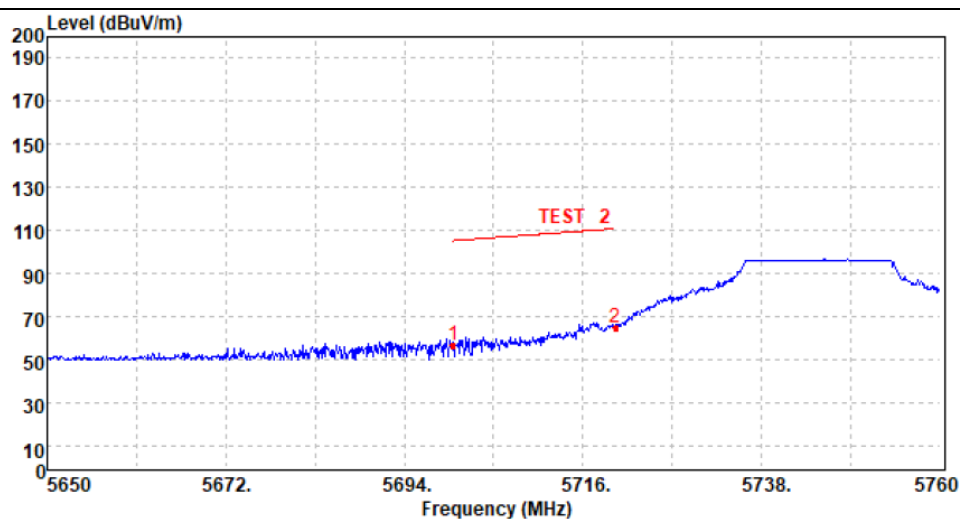
Test channel: CH_L

Polarization:

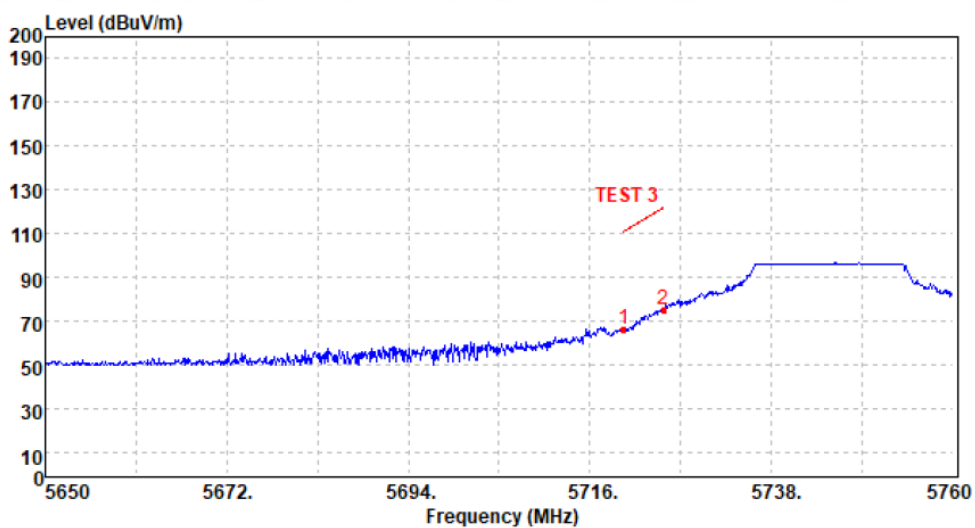
Vertical



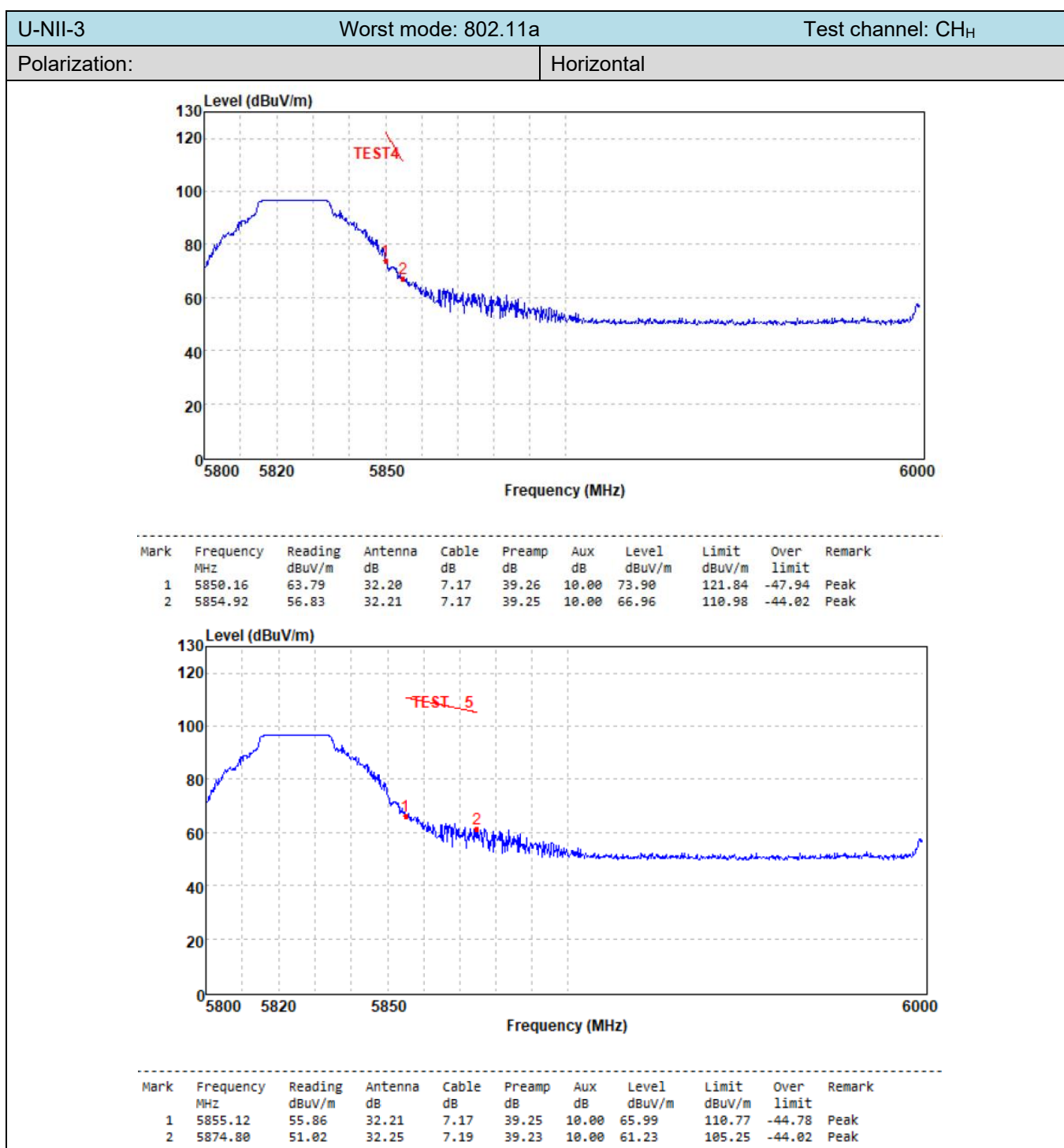
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5650.00	41.43	31.60	7.13	39.38	10.00	50.78	68.20	-17.42	Peak
2	5699.83	47.09	31.80	7.02	39.35	10.00	56.56	105.07	-48.51	Peak

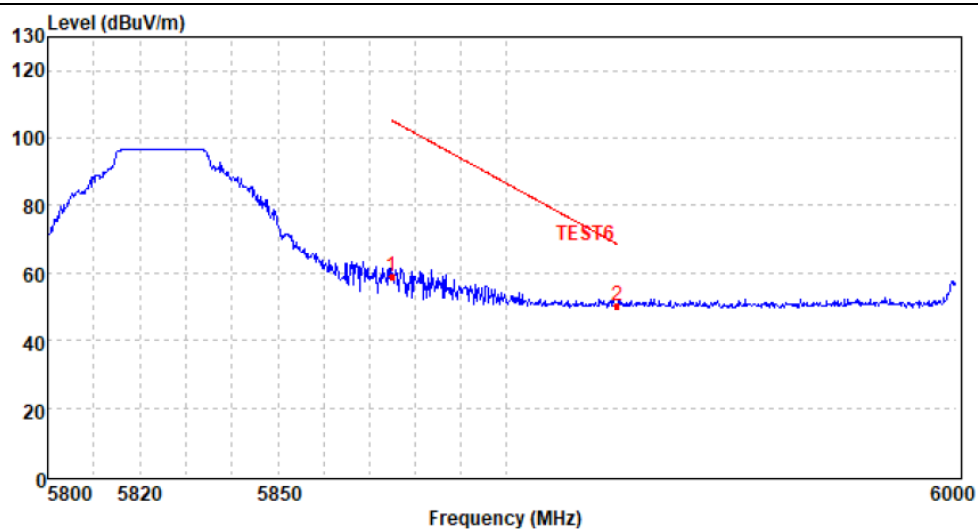


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5708.05	46.69	31.80	7.02	39.35	10.00	56.16	105.21	-49.05	Peak
2	5719.96	54.85	31.84	6.97	39.34	10.00	64.32	110.79	-46.47	Peak



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5720.07	56.47	31.84	6.97	39.34	10.00	65.94	110.96	-45.02	Peak
2	5724.91	65.64	31.85	6.96	39.34	10.00	75.11	122.00	-46.89	Peak





Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5875.00	48.91	32.25	7.19	39.23	10.00	59.12	105.20	-46.08	Peak
2	5924.61	39.76	32.30	7.22	39.19	10.00	50.09	68.49	-18.40	Peak

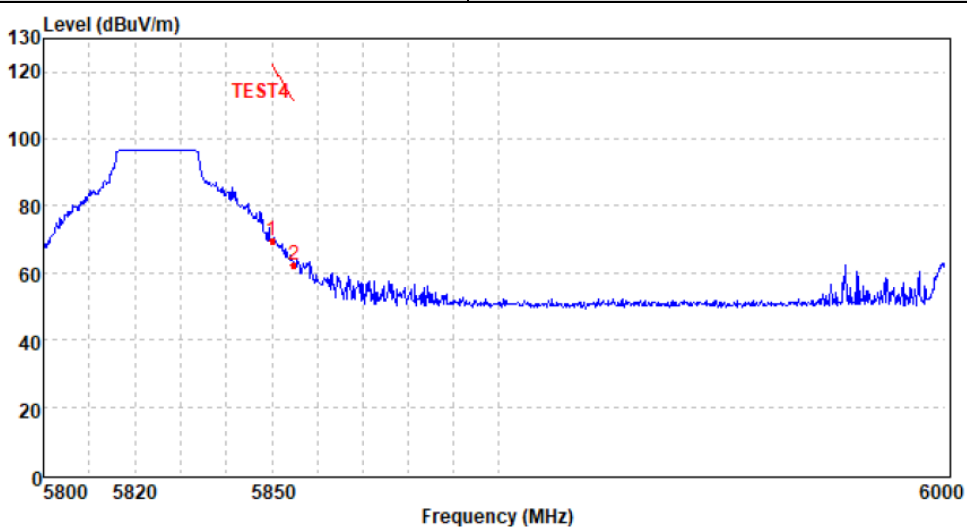
U-NII-3

Worst mode: 802.11a

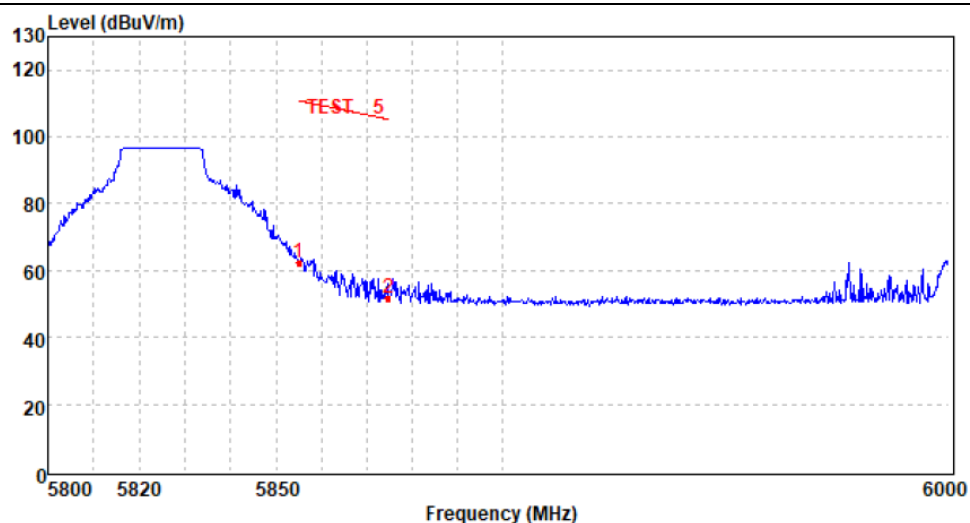
Test channel: CH_H

Polarization:

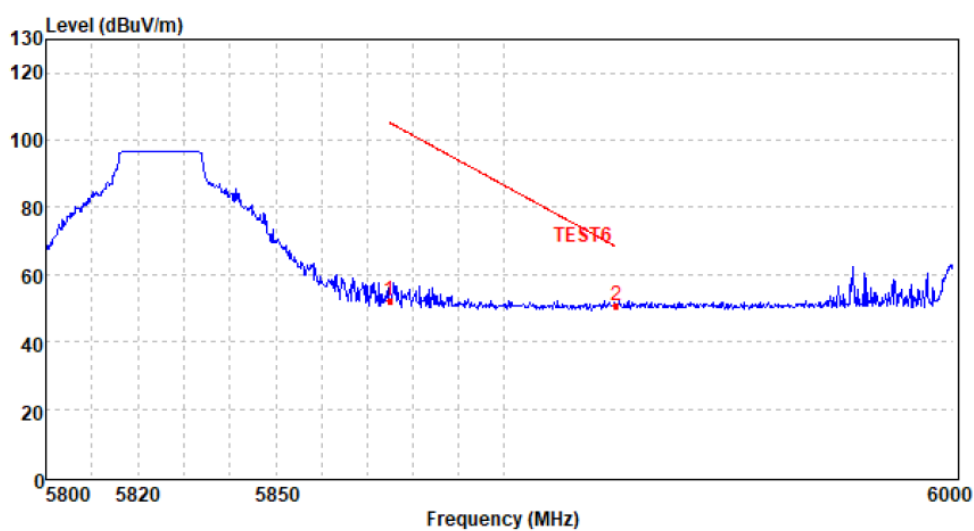
Vertical



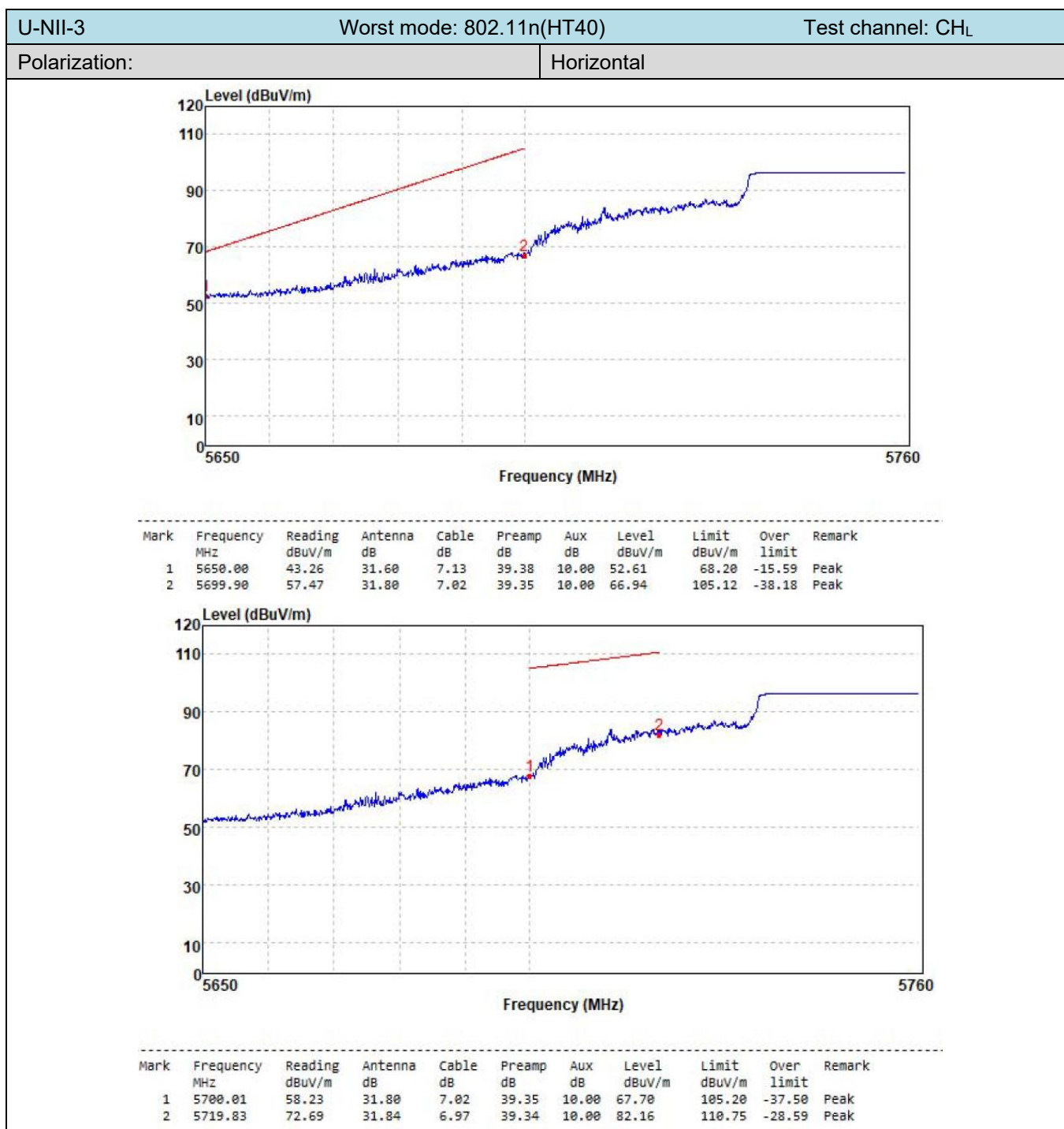
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5850.16	59.29	32.20	7.17	39.26	10.00	69.40	121.84	-52.44	Peak
2	5854.92	52.39	32.21	7.17	39.25	10.00	62.52	110.98	-48.46	Peak

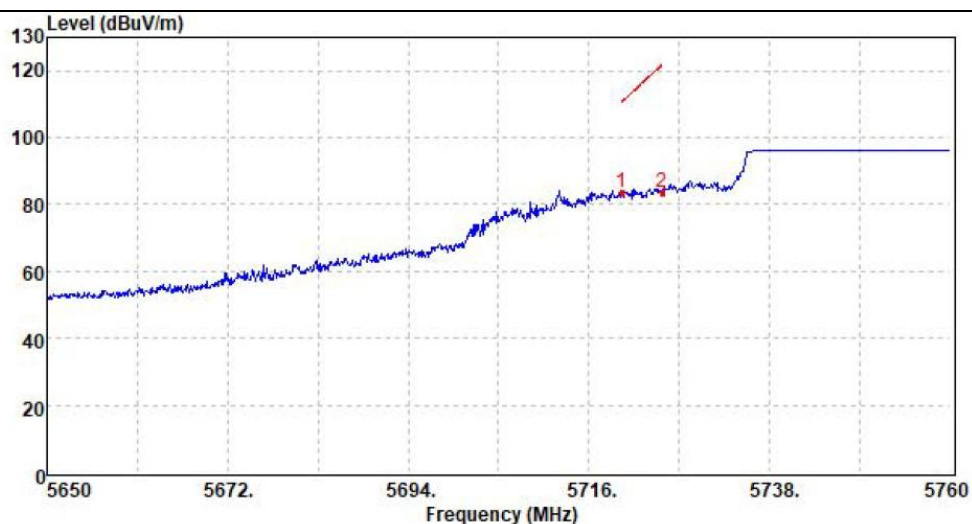


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5855.12	52.37	32.21	7.17	39.25	10.00	62.50	110.77	-48.27	Peak
2	5874.80	41.49	32.25	7.19	39.23	10.00	51.70	105.25	-53.55	Peak



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5875.00	42.03	32.25	7.19	39.23	10.00	52.24	105.20	-52.96	Peak
2	5924.81	40.52	32.30	7.22	39.19	10.00	50.85	68.34	-17.49	Peak





Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5720.05	74.38	31.84	6.97	39.34	10.00	83.85	110.90	-27.05	Peak
2	5724.90	74.00	31.85	6.96	39.34	10.00	83.47	121.97	-38.50	Peak

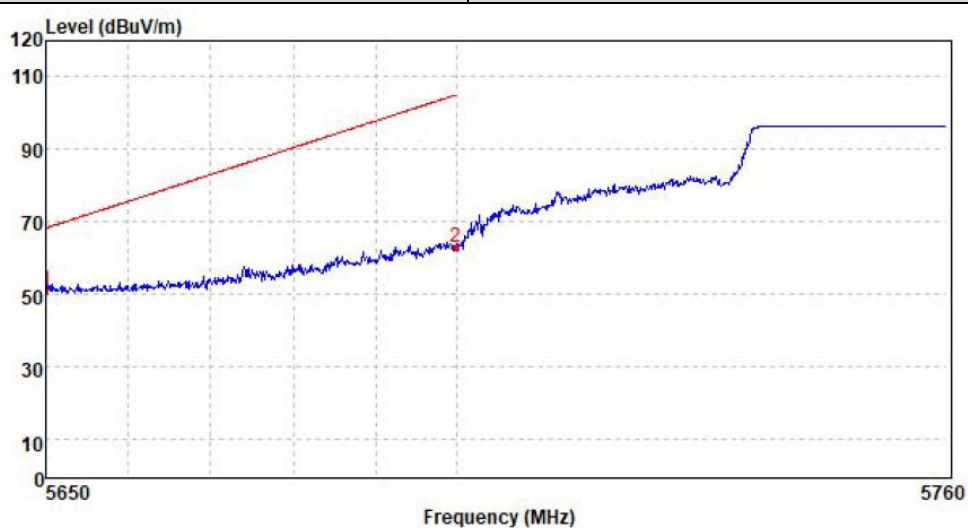
U-NII-3

Worst mode: 802.11n(HT40)

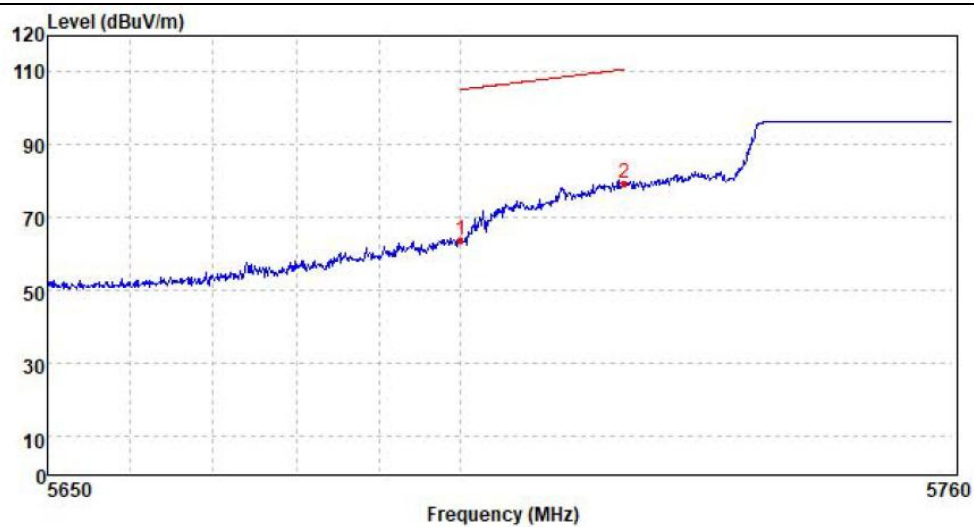
Test channel: CHL

Polarization:

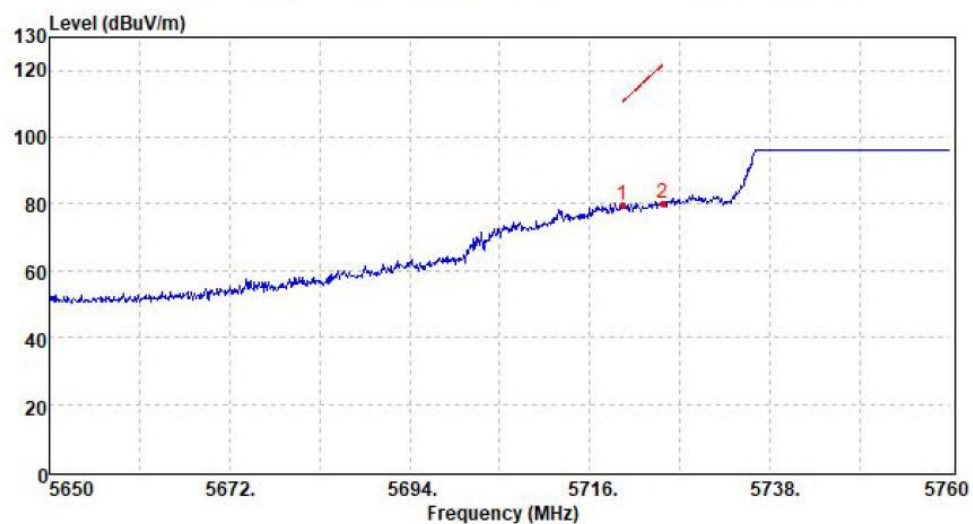
Vertical



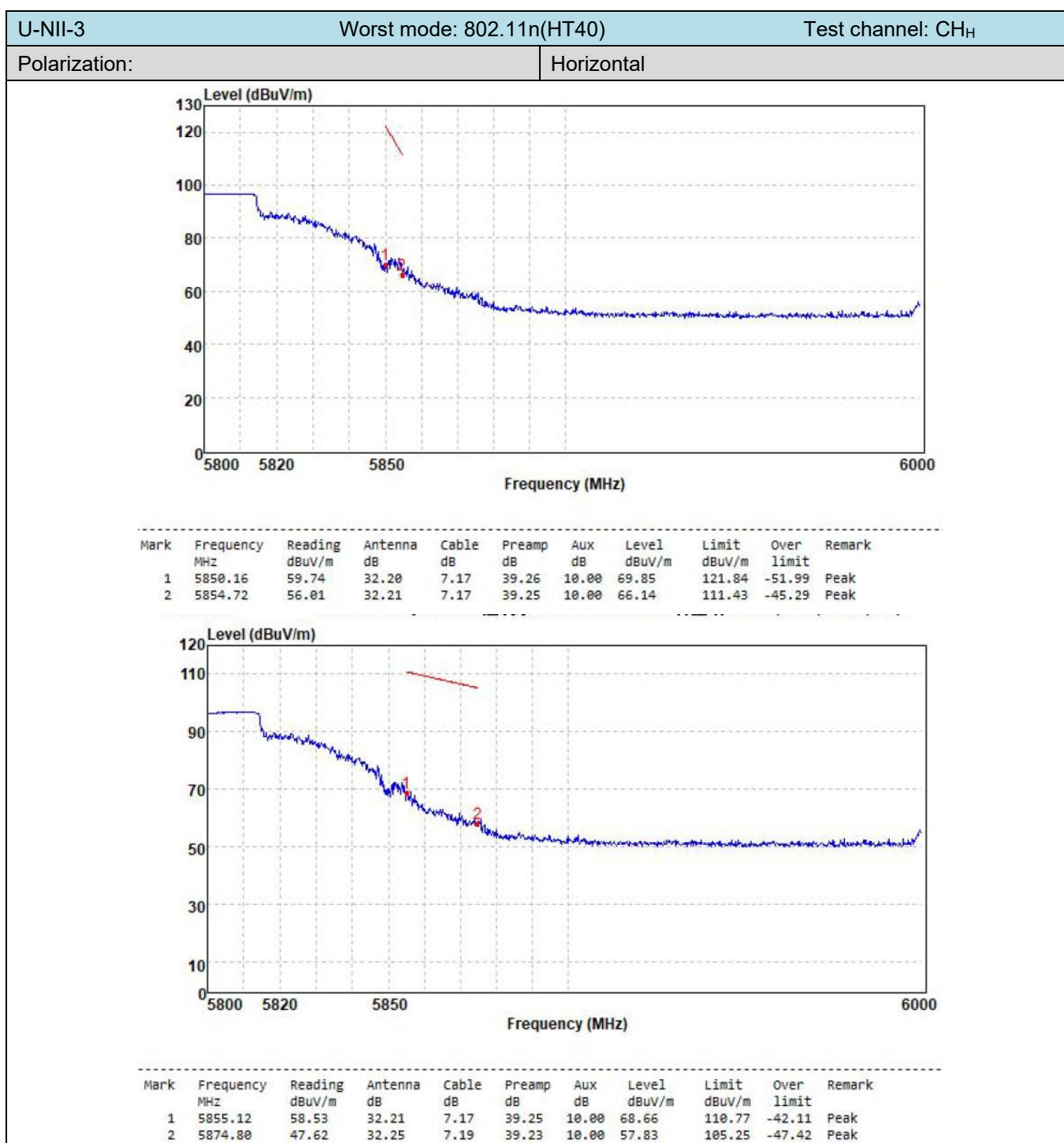
Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5650.00	41.54	31.60	7.13	39.38	10.00	50.89	68.20	-17.31	Peak
2	5699.90	53.31	31.80	7.02	39.35	10.00	62.78	105.12	-42.34	Peak

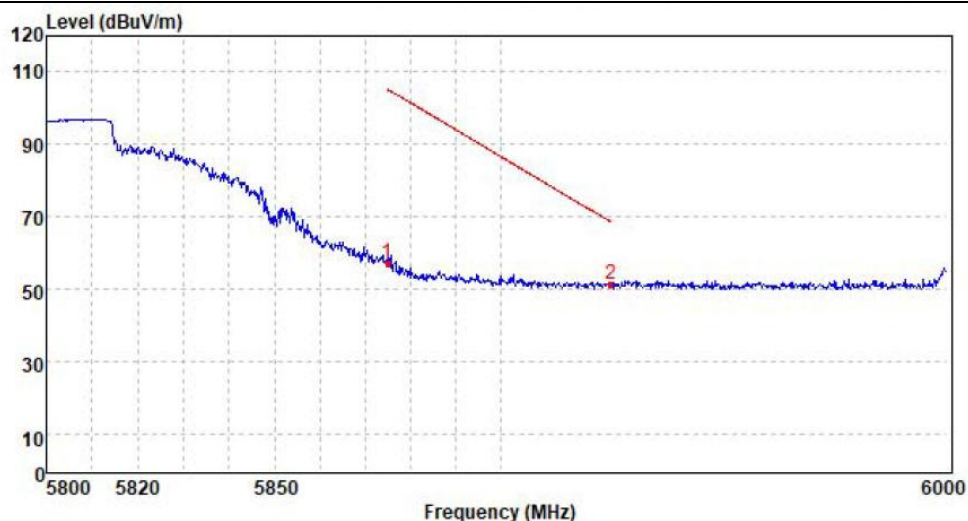


Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5700.01	54.41	31.80	7.02	39.35	10.00	63.88	105.20	-41.32	Peak
2	5719.83	70.14	31.84	6.97	39.34	10.00	79.61	110.75	-31.14	Peak



Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamplifier dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5720.05	70.06	31.84	6.97	39.34	10.00	79.53	110.90	-31.37	Peak
2	5724.90	70.71	31.85	6.96	39.34	10.00	80.18	121.97	-41.79	Peak





Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5875.00	46.82	32.25	7.19	39.23	10.00	57.03	105.20	-48.17	Peak
2	5924.61	41.17	32.30	7.22	39.19	10.00	51.50	68.49	-16.99	Peak

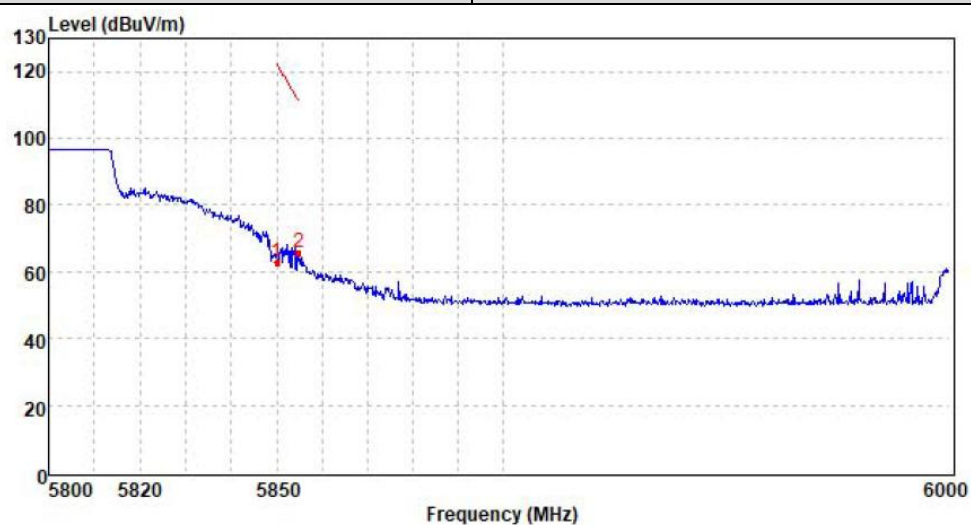
U-NII-3

Worst mode: 802.11n(HT40)

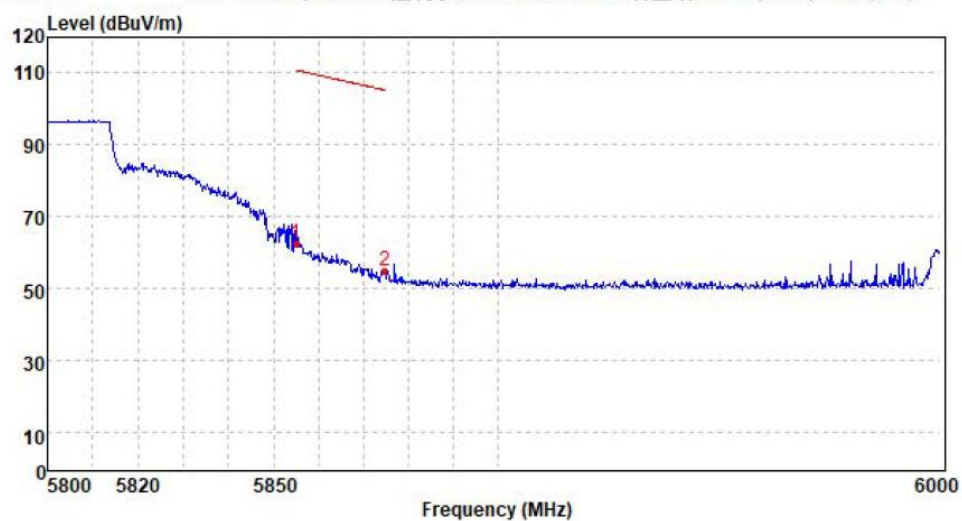
Test channel: CH_H

Polarization:

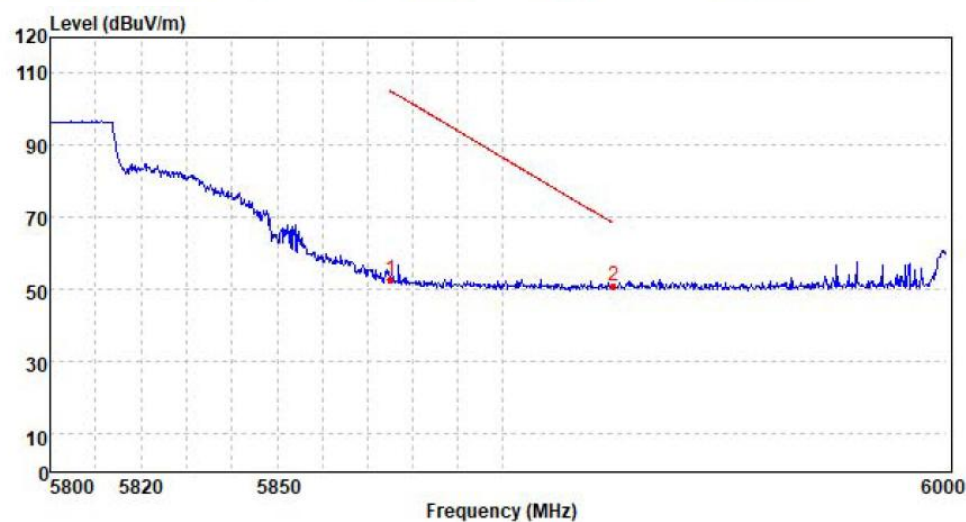
Vertical



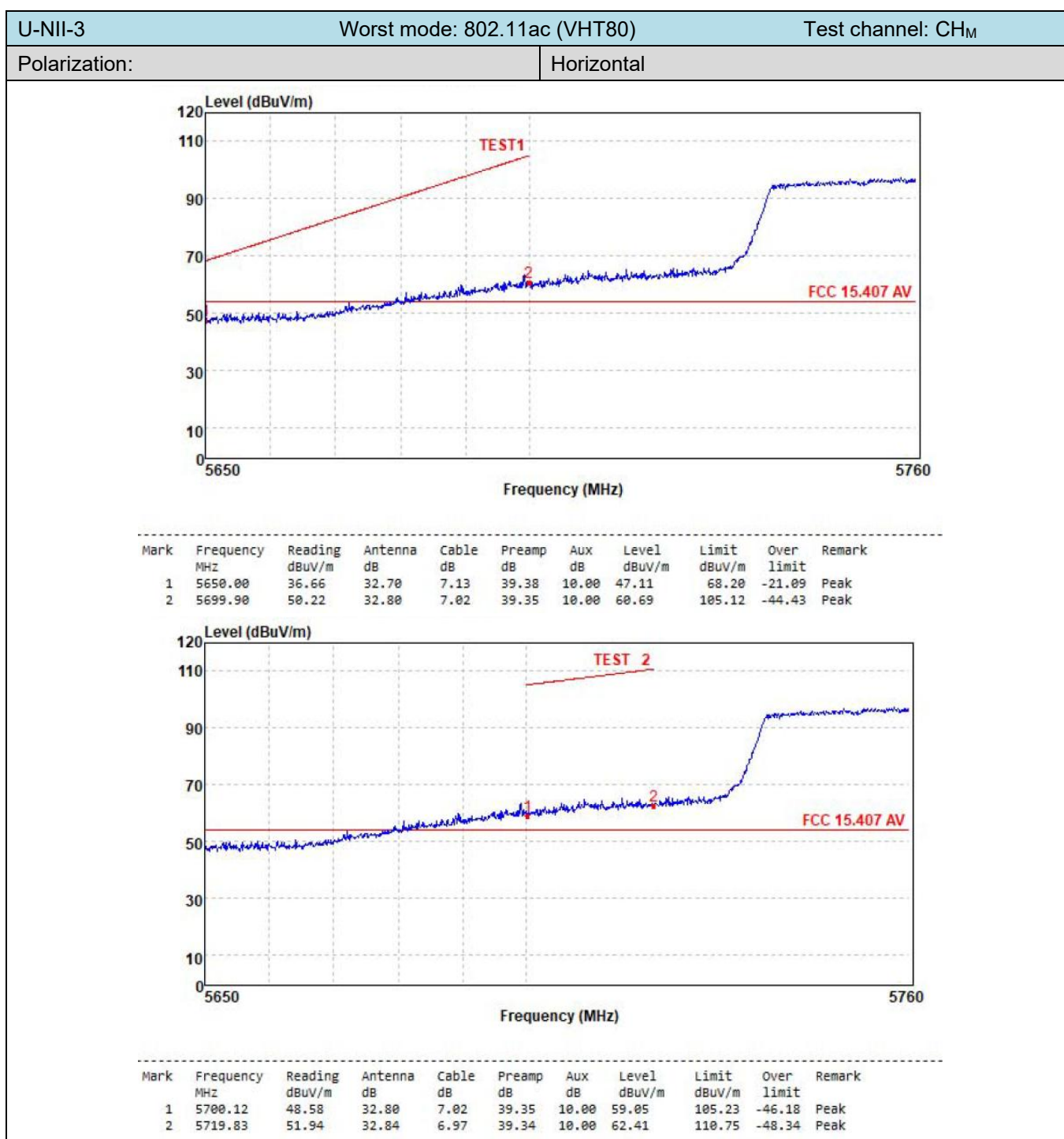
Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5850.16	52.91	32.20	7.17	39.26	10.00	63.02	121.84	-58.82	Peak
2	5854.92	55.83	32.21	7.17	39.25	10.00	65.96	110.98	-45.02	Peak

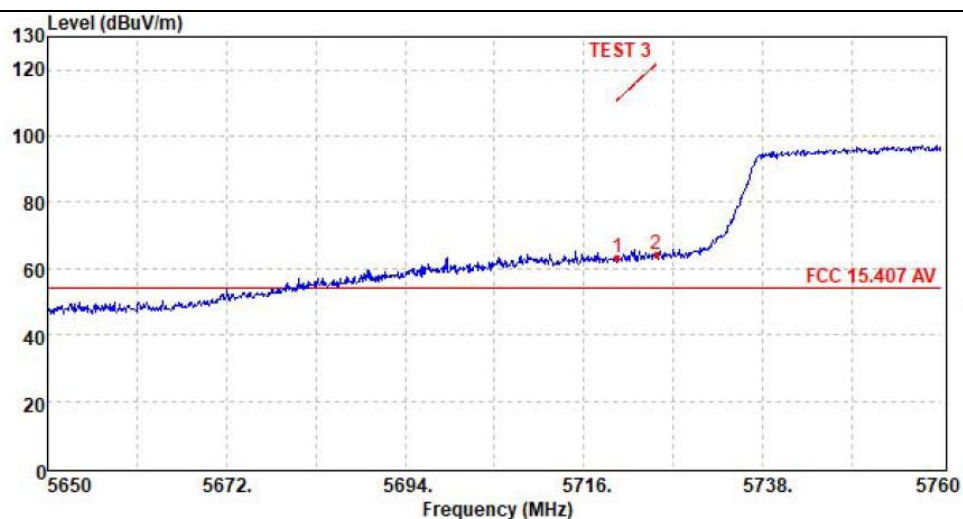


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5855.12	52.44	32.21	7.17	39.25	10.00	62.57	110.77	-48.20	Peak
2	5874.80	44.82	32.25	7.19	39.23	10.00	55.03	105.25	-50.22	Peak



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5875.20	42.60	32.25	7.19	39.23	10.00	52.81	105.05	-52.24	Peak
2	5924.81	40.63	32.30	7.22	39.19	10.00	50.96	68.34	-17.38	Peak





Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5720.07	52.98	32.84	6.97	39.34	10.00	63.45	110.96	-47.51	Peak
2	5724.91	53.90	32.85	6.96	39.34	10.00	64.37	122.00	-57.63	Peak

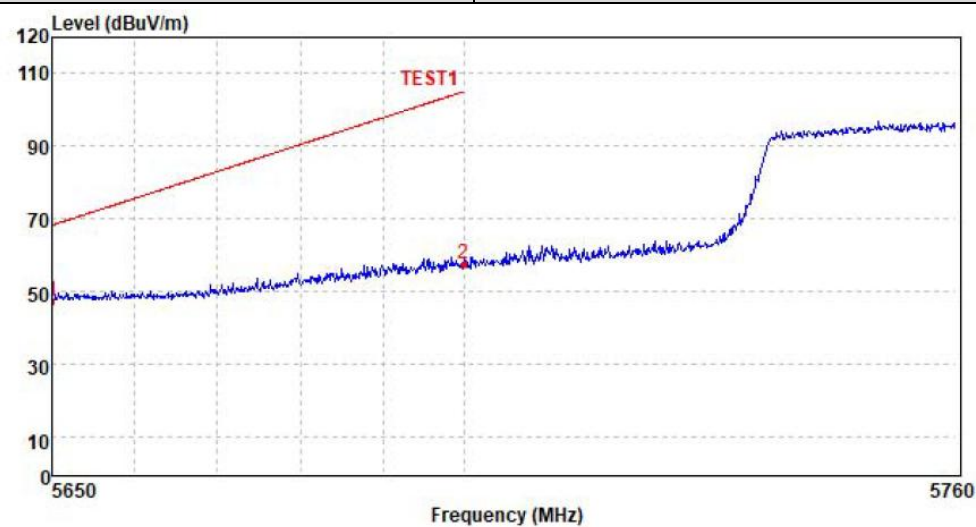
U-NII-3

Worst mode: 802.11ac (VHT80)

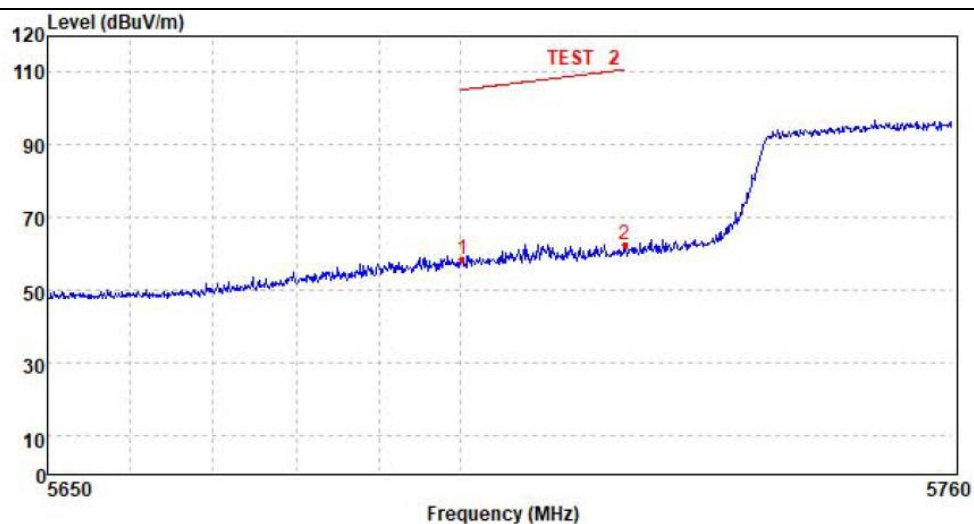
Test channel: CH_M

Polarization:

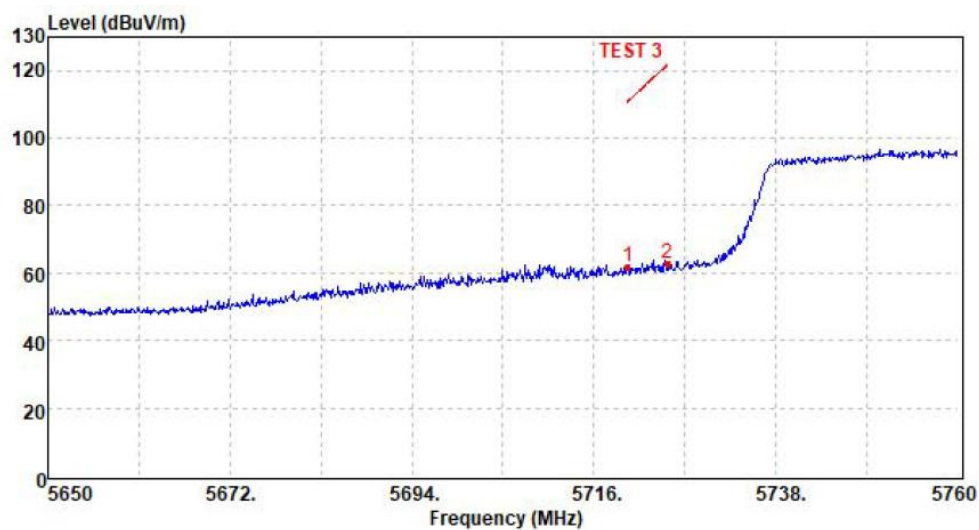
Vertical



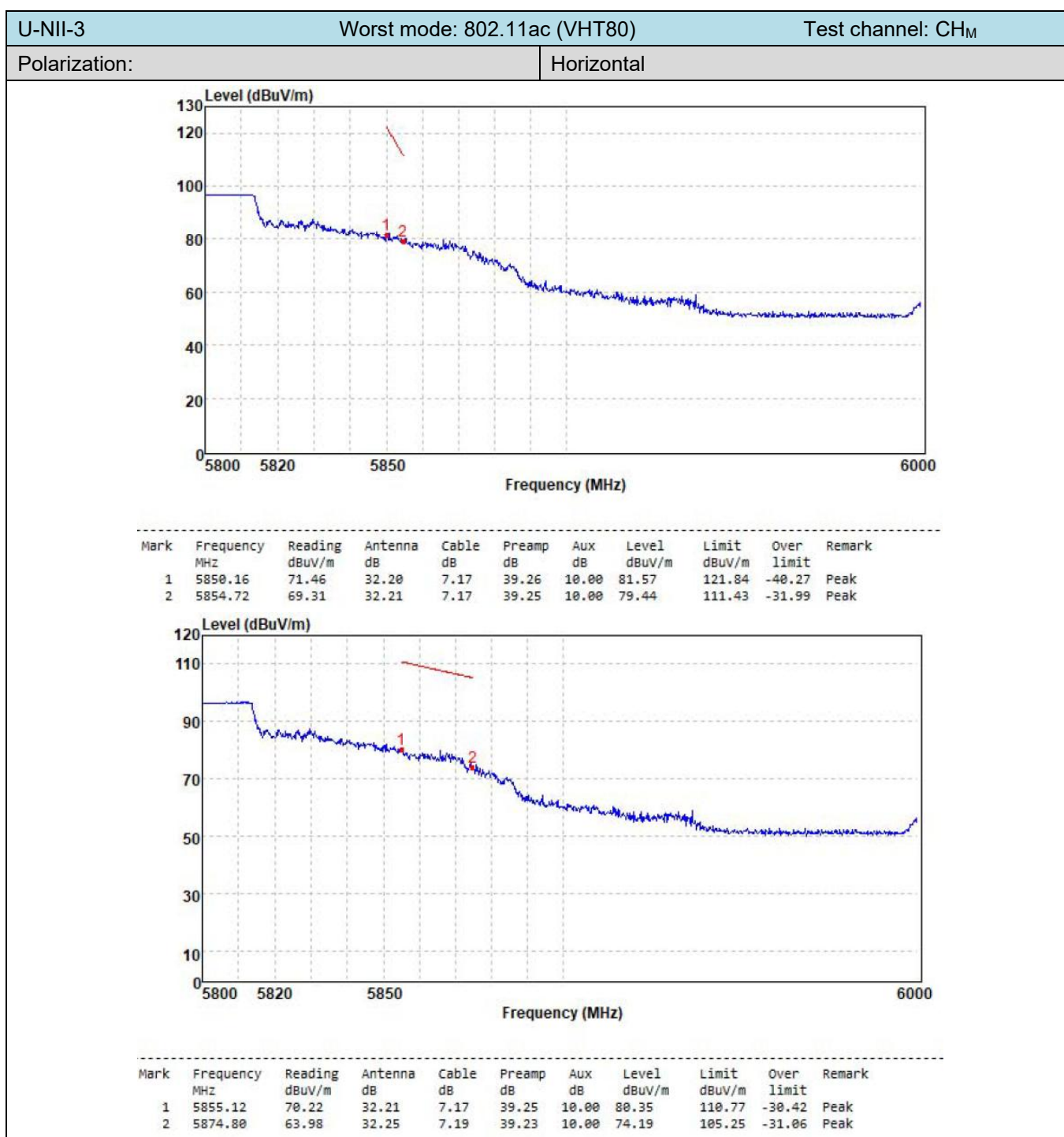
Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5650.00	37.06	32.70	7.13	39.38	10.00	47.51	68.20	-20.69	Peak
2	5699.90	46.98	32.80	7.02	39.35	10.00	57.45	105.12	-47.67	Peak

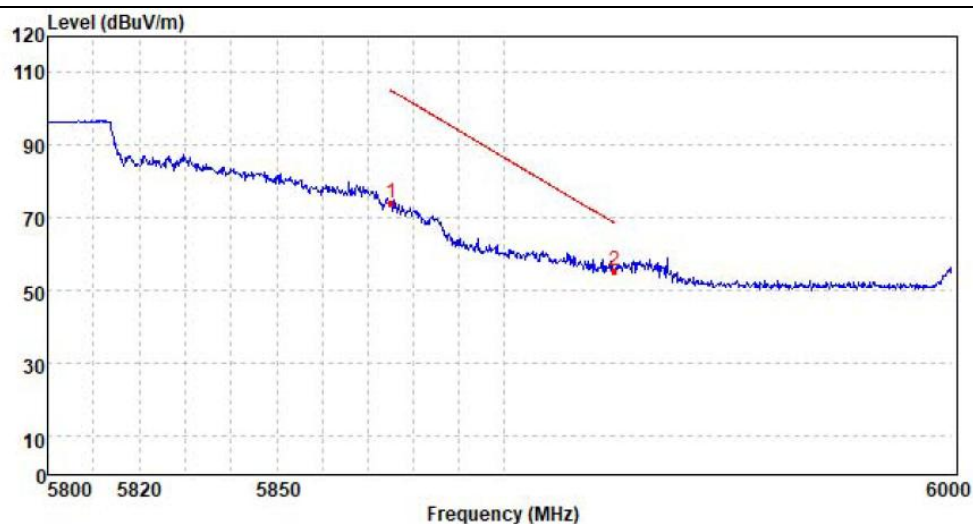


Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5700.12	48.19	32.80	7.02	39.35	10.00	58.66	105.23	-46.57	Peak
2	5719.94	51.79	32.84	6.97	39.34	10.00	62.26	110.78	-48.52	Peak



Mark	Frequency MHz	Reading dBUV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBUV/m	Limit dBUV/m	Over limit	Remark
1	5720.07	51.31	32.84	6.97	39.34	10.00	61.78	110.96	-49.18	Peak
2	5724.91	52.58	32.85	6.96	39.34	10.00	63.05	122.00	-58.95	Peak





Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5875.20	63.70	32.25	7.19	39.23	10.00	73.91	105.05	-31.14	Peak
2	5924.61	44.99	32.30	7.22	39.19	10.00	55.32	68.49	-13.17	Peak

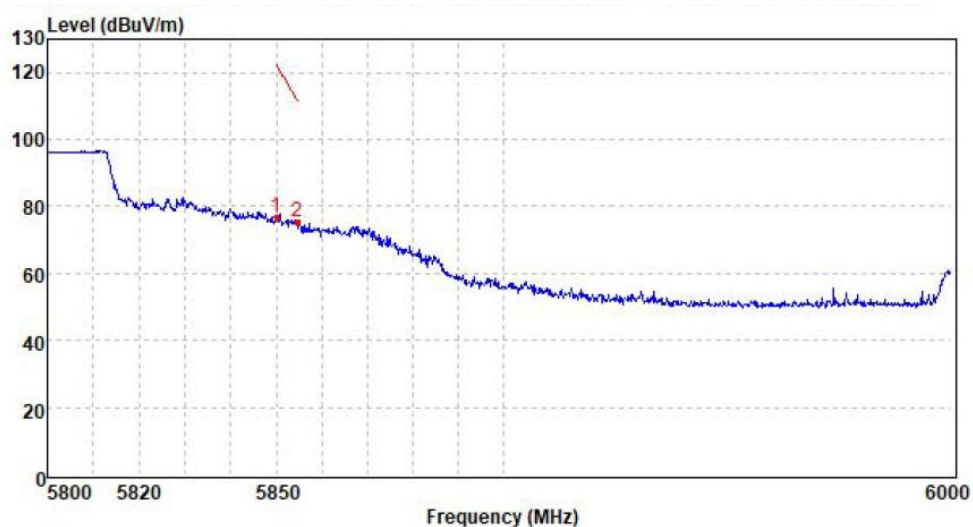
U-NII-3

Worst mode: 802.11ac (VHT80)

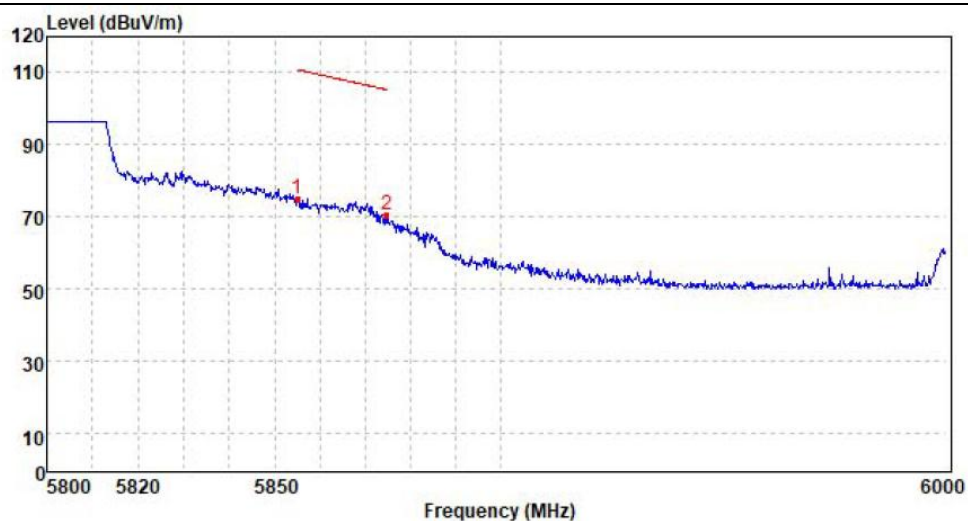
Test channel: CH_M

Polarization:

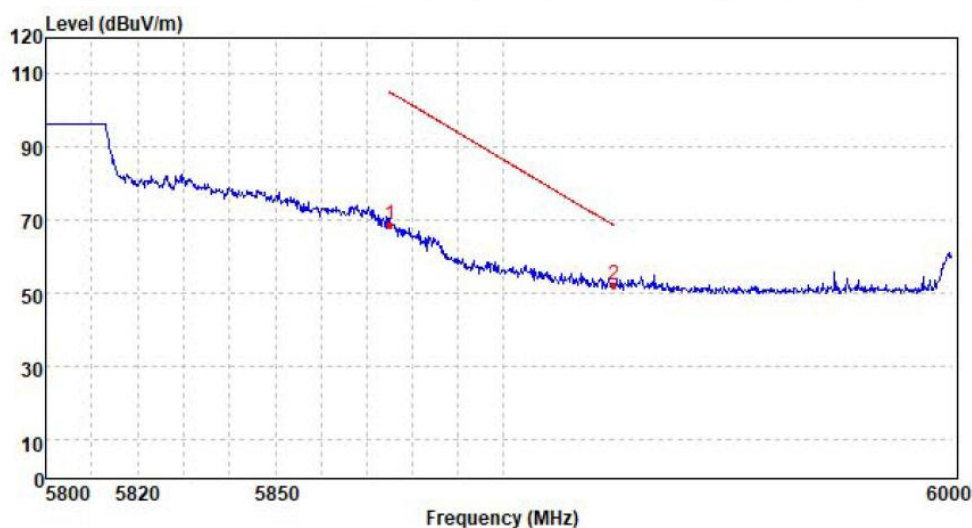
Vertical



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5850.16	66.62	32.20	7.17	39.26	10.00	76.73	121.84	-45.11	Peak
2	5854.72	65.10	32.21	7.17	39.25	10.00	75.23	111.43	-36.20	Peak



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5855.12	64.83	32.21	7.17	39.25	10.00	74.96	110.77	-35.81	Peak
2	5874.80	60.06	32.25	7.19	39.23	10.00	70.27	105.25	-34.98	Peak



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Aux dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	5875.20	58.30	32.25	7.19	39.23	10.00	68.51	105.05	-36.54	Peak
2	5924.61	41.79	32.30	7.22	39.19	10.00	52.12	68.49	-16.37	Peak

Remark:

1. Final Level = Receiver Read level + Factor; Factor = Antenna Factor + Cable Loss + Aux factor - Preamp Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Test 802.11a, 802.11n, 802.11ac mode, all modulations have been tested, only worst case is reported.

5.8. Radiated Spurious Emissions

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209 and Part 15 Subpart E Section 15.407

Frequency	Limit (dBuV/m)	Value
0.009 MHz ~0.49 MHz	2400/F(kHz) @300m	Quasi-peak
0.49 MHz ~ 1.705 MHz	24000/F(kHz) @30m	Quasi-peak
1.705 MHz ~30 MHz	30 @30m	Quasi-peak

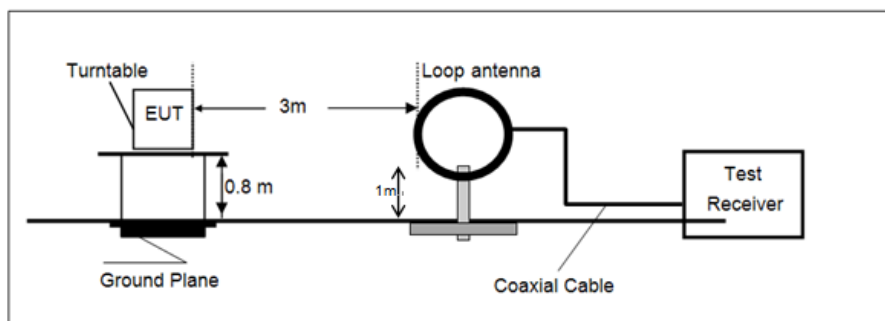
Note: Limit dBuV/m @3m = Limit dBuV/m @300m + 40*log(300/3)= Limit dBuV/m @300m +80,

Limit dBuV/m @3m = Limit dBuV/m @30m +40*log(30/3)= Limit dBuV/m @30m + 40.

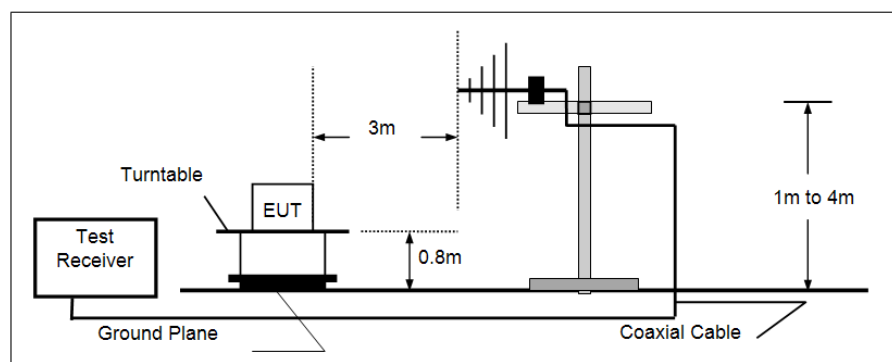
Unwanted emissions below 1GHz and Restricted band emissions above 1GHz		
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

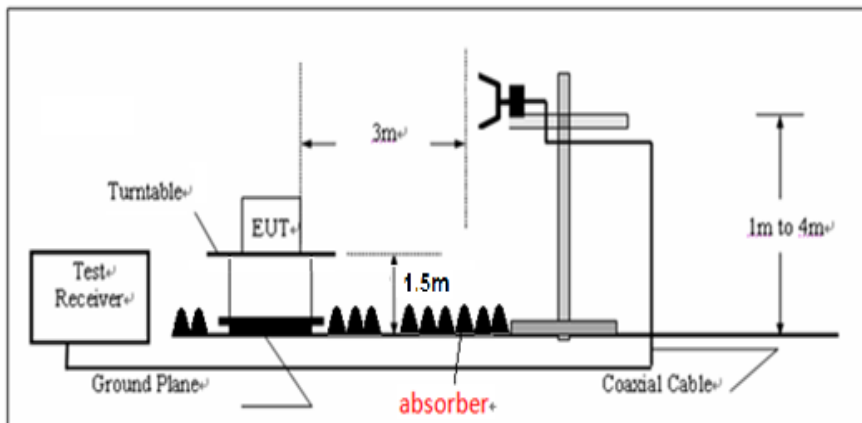
- 9KHz ~30MHz



- 30MHz ~ 1GHz



➤ Above 1GHz

**TEST PROCEDURE**

1. The EUT was setup and tested according to ANSI C63.10.
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
 - a) Span shall wide enough to fully capture the emission being measured;
 - b) Below 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.
 - c) From 1 GHz to 10th harmonic:
 - RBW=1MHz, VBW=3MHz Peak detector for Peak value.
 - RBW=1MHz, VBW=3MHz RMS detector for Average value.

TEST MODE:

Please refer to the clause 4.3

TEST RESULT

☒ Passed ☐ Not Applicable

TEST DATA**FOR 9 kHz ~ 30 MHz**

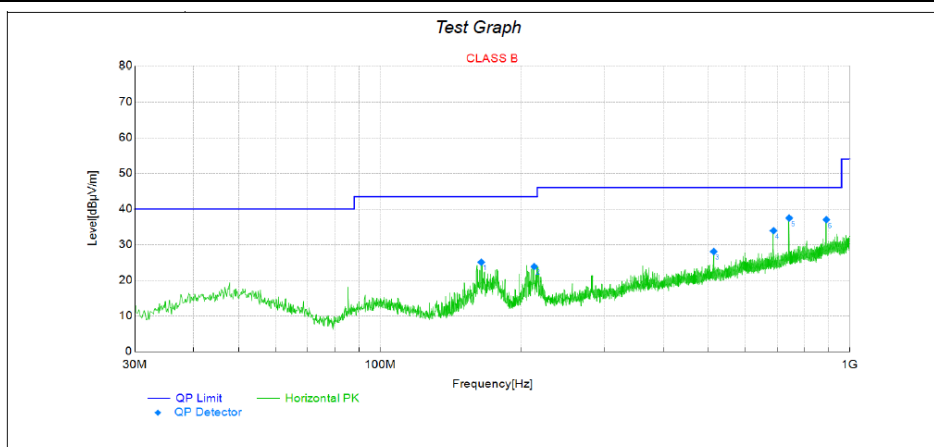
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

FOR 30MHz-1GHz

Have pre-scan all test channel, found CH36 of 802.11a which it was worst case, so only show the worst case's data on this report.

Polarization:

Horizontal

**Final Data List**

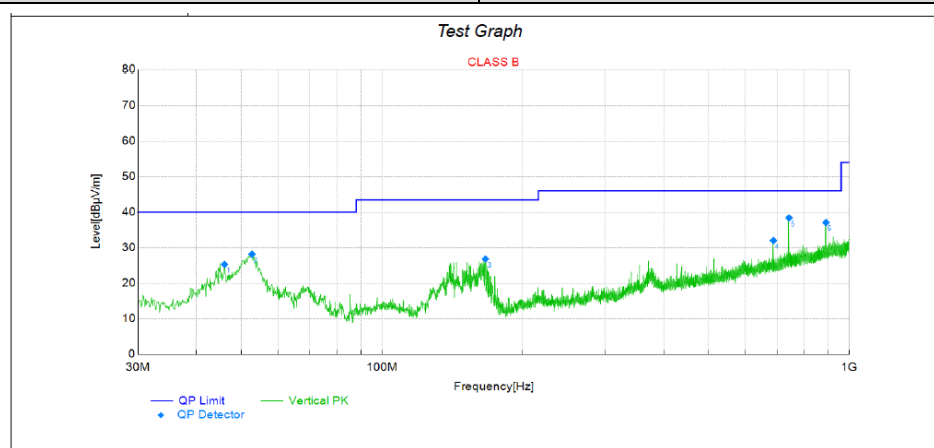
NO.	Frequency [MHz]	Factor [dB/m]	QP Reading [dBμV/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pol
1	164.1025	-13.60	38.66	25.06	43.50	18.44	100	122	Horizontal
2	212.7238	-10.68	34.53	23.85	43.50	19.65	100	122	Horizontal
3	513.0600	-1.84	29.91	28.07	46.00	17.93	100	180	Horizontal
4	687.5388	2.05	31.85	33.90	46.00	12.10	100	180	Horizontal
5	742.5863	3.53	33.92	37.45	46.00	8.55	100	155	Horizontal
6	890.9963	6.29	30.72	37.01	46.00	8.99	100	1	Horizontal

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

Polarization:

Vertical

**Final Data List**

NO.	Frequency [MHz]	Factor [dB/m]	QP Reading [dBμV/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pol
1	46.0050	-8.70	33.97	25.27	40.00	14.73	100	179	Vertical
2	52.6738	-9.25	37.43	28.18	40.00	11.82	100	45	Vertical
3	166.4063	-13.65	40.49	26.84	43.50	16.66	100	176	Vertical
4	687.5388	2.05	29.98	32.03	46.00	13.97	100	0	Vertical
5	742.5863	3.53	34.84	38.37	46.00	7.63	100	0	Vertical
6	890.9963	6.29	30.78	37.07	46.00	8.93	100	45	Vertical

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level