

TEST REPORT

Applicant Name: YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.
Address: No.666 Hu'an Rd. Huli District Xiamen City, Fujian, P.R. China
Report Number: 2401Y67777E-RF-00
FCC ID: T2C-T73W

Test Standard (s)

FCC PART 15.407

Sample Description

Product Type: Ultra Business Phone
Model No.: SIP-T73W
Multiple Model(s) No.: N/A
Trade Mark: **Yealink**
Date Received: 2024/10/15
Issue Date: 2025/01/14

Test Result:

Pass▲

▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

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Ekko Wu
RF Engineer

Approved By:

Nancy Wang

Nancy Wang
RF Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401Y67777E-RF-00	Original Report	2025/01/14

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Ultra Business Phone
Tested Model	SIP-T73W
Multiple Model(s)	N/A
Frequency Range	5G Wi-Fi: 5150-5250MHz; 5250-5350MHz; 5470-5725MHz; 5725-5850MHz
Mode	802.11a/n20/n40/ac20/ac40/ax20/ax40
Maximum Conducted Average Output Power	5150-5250MHz: 16.86dBm 5250-5350MHz: 18.14dBm 5470-5725MHz: 17.84dBm 5725-5850MHz: 14.48dBm
Modulation Technique	OFDM, OFDMA
Antenna Specification [#]	1.02dBi (provided by the applicant)
Voltage Range	DC 5V from Adapter or DC 48V from PoE
Sample serial number	2SUF-9 for Conducted and Radiated Emissions Test 2SUF-8 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	Adapter 1 Model: YLPS052000B1-US Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 5.0V, 2.0A Adapter 2 Model: YLPS052000C1-US Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 5.0V, 2.0A Adapter 3 Model: YLPS052000E1-US Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 5.0V, 2.0A
Note: The EUT powered by three adapters or PoE, the worst case power supply was selected to test for AC line conducted and radiated emission below 1GHz according to BT report test result.	

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB789033 D02 General U-NII Test Procedures New Rules v02r01.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		109.2kHz(k=2, 95% level of confidence)
RF Frequency		56.6Hz(k=2, 95% level of confidence)
RF output power, conducted		0.86dB(k=2, 95% level of confidence)
Unwanted Emission, conducted		1.60dB(k=2, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz-150kHz	3.63dB(k=2, 95% level of confidence)
	150kHz-30MHz	3.66dB(k=2, 95% level of confidence)
Radiated Emissions	0.009MHz~30MHz	3.60dB(k=2, 95% level of confidence)
	30MHz~200MHz (Horizontal)	5.32dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	5.43dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	5.77dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.73dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.34dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.40dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.64dB(k=2, 95% level of confidence)
Temperature		±1°C
Humidity		±1%
Supply voltages		±0.4%

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer.

For 5150-5250MHz Band, 6 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240

For 802.11a/n20/ax20 mode: channel 36, 40, 48 were tested;

For 802.11n40/ax40 mode: channel 38, 46 were tested.

For 5250-5350MHz Band, 6 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
54	5270	62	5310
56	5280	64	5320

For 802.11a/n20/ax20 mode: channel 52, 56, 64 were tested;

For 802.11n40/ax40 mode: channel 54, 62 were tested.

For 5470-5725MHz Band, 16 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	120	5600
102	5510	124	5620
104	5520	126	5630
108	5540	128	5640
110	5550	132	5660
112	5560	134	5670
116	5580	136	5680
118	5590	140	5700

For 802.11a/n20/ax20 mode: channel 100, 116, 140 were tested;

For 802.11n40/ax40 mode: channel 102, 110, 134 were tested.

For 5725-5850MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	159	5795
151	5755	161	5805
153	5765	165	5825
157	5785	/	/

For 802.11a/n20/ax20 mode: channel 149, 157, 165 were tested;

For 802.11n40/ax40 mode: channel 151, 159 were tested.

EUT Exercise Software

“Authentication Tool.exe V 2.0.11.0”[#] software was used and power level as below. The software and power level was provided by the applicant. The device was tested with the worst case was performed as below:

U-NII	Mode	Data rate	Power Level Setting#		
			Low Channel	Middle Channel	High Channel
5150-5250MHz	802.11a	6Mbps	16	16	16
	802.11n-HT20	MCS0	16	16	16
	802.11n-HT40	MCS0	16	/	16
	802.11ax-HE20	MCS0	16	16	16
	802.11ax-HE40	MCS0	16	/	16
5250-5350MHz	802.11a	6Mbps	16	16	16
	802.11n-HT20	MCS0	16	16	16
	802.11n-HT40	MCS0	16	/	16
	802.11ax-HE20	MCS0	16	16	16
	802.11ax-HE40	MCS0	16	/	16
5470-5725MHz	802.11a	6Mbps	16	16	16
	802.11n-HT20	MCS0	16	16	16
	802.11n-HT40	MCS0	16	/	16
	802.11ax-HE20	MCS0	16	16	16
	802.11ax-HE40	MCS0	16	/	16
5725-5850MHz	802.11a	6Mbps	16	16	16
	802.11n-HT20	MCS0	16	16	16
	802.11n-HT40	MCS0	16	/	16
	802.11ax-HE20	MCS0	16	16	16
	802.11ax-HE40	MCS0	16	/	16
1. The above are the worst-case data rates, which are determined for each mode based upon investigations by measuring the average power and PSD across all data rates, bandwidths, and modulations.					
2. The ac20/ac40 mode was reduced test as identical parameter with n20/n40 mode.					
3. For 802.11 ax modes, the device not support partial RU mode.					

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

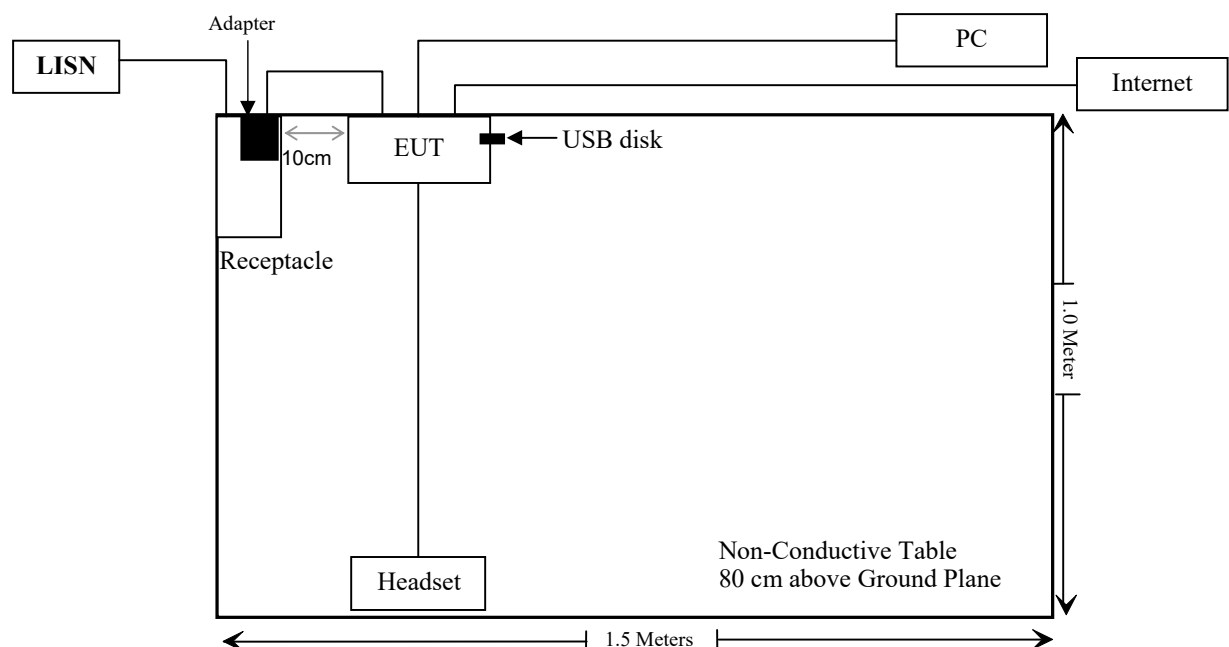
Manufacturer	Description	Model	Serial Number
DELL	PC	Latitude E5430	37K4X AOO
Unknown	USB disk	Unknown	Unknown
Unknown	Headset	Unknown	Unknown
GOSPEL	POE	G0720-480-050	200200019

External I/O Cable

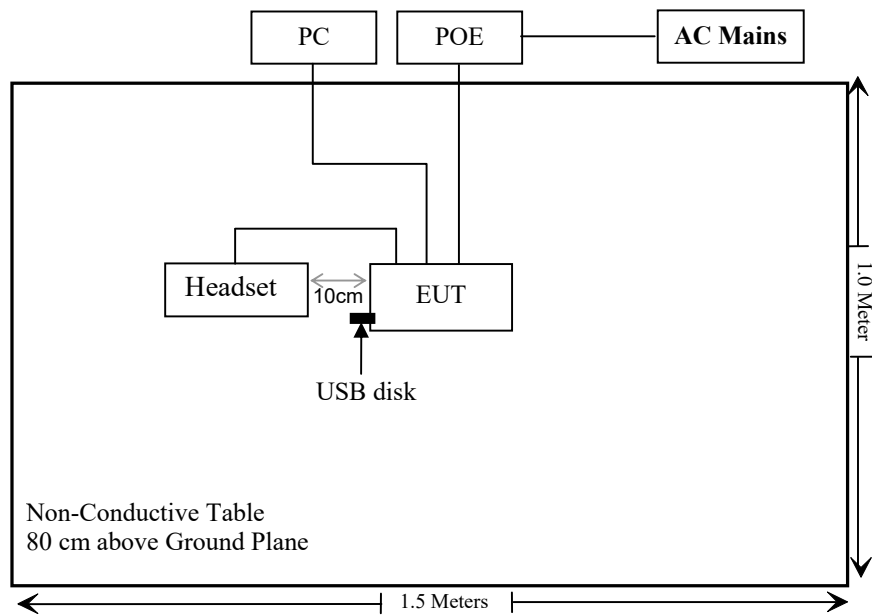
Cable Description	Length (m)	From Port	To
Un-shielded Un-detachable AC cable	1.5	Receptacle	LISN
Un-shielded Un-detachable DC cable	1.5	EUT	Adapter
Un-shielded Detachable Audio cable	1.2	EUT	Headset
Un-shielded Detachable RJ45 cable	5.0	EUT	PC
Un-shielded Detachable RJ45 cable	5.0	EUT	Internet
Un-shielded Detachable AC cable	1.0	POE	AC Mains
Un-shielded Detachable RJ45 cable	3.0	EUT	POE

Block Diagram of Test Setup

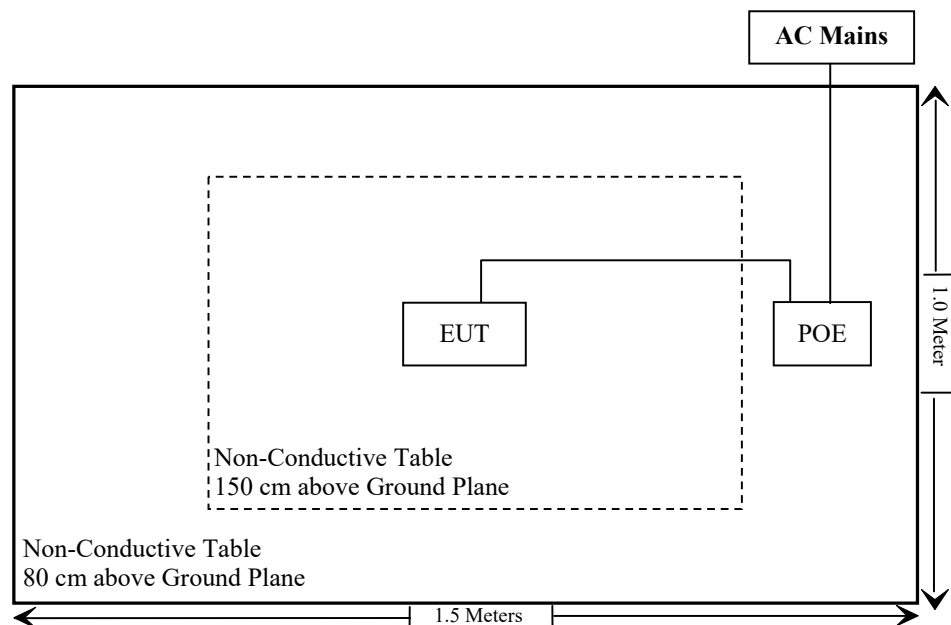
For Conducted Emissions:



For Radiated Emissions below 1GHz:



For Radiated Emissions above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307 (b) & §2.1091	MPE-Based Exemption	Compliant
§15.203	Antenna Requirement	Compliant
§15.407(b)(9)& §15.207(a)	Conducted Emissions	Compliant
§15.205& §15.209 &§15.407(b)	Undesirable Emission& Restricted Bands	Compliant
§15.407(a) (e)	26 dB Emission Bandwidth & 6dB Bandwidth	Compliant
§15.407(a)	Conducted Transmitter Output Power	Compliant
§15.407 (a)	Power Spectral Density	Compliant
§15.407 (h)	Transmit Power Control (TPC)	Not Applicable
§15.407 (h)	Dynamic Frequency Selection (DFS)	Compliant*
C63.10 §11.6	Duty Cycle	/

Compliant*: Please refer to the DFS report 2401Y67777E-RFD.

Not Applicable: For 5250-5350MHz/5470-5725MHz, the maximum EIRP is 19.16dBm<27dBm (500mW).

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/01/16	2025/01/15
Rohde & Schwarz	LISN	ENV216	101613	2024/01/16	2025/01/15
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2024/05/21	2025/05/20
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2024/05/21	2025/05/20
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Radiated Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Unknown	Cable	2Y194	0735	2024/05/21	2025/05/20
Unknown	Cable	PNG214	1354	2024/05/21	2025/05/20
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2024/06/18	2025/06/17
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	735	2024/06/18	2025/06/17
Unknown	RF Cable	UFA147	219661	2024/06/18	2025/06/17
Unknown	RF Cable	XH750A-N	J-10M	2024/06/18	2025/06/17
JD	Multiplex Switch Test Control Set	DT7220FSU	DQ77926	2024/06/18	2025/06/17
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2024/06/18	2025/06/17
Audix	EMI Test software	E3	191218(V9)	NCR	NCR

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200982	2024/09/20	2025/09/19
Tonscend	RF control Unit	JS0806-2	19D8060154	2024/08/06	2025/08/05
ANRITSU	Microwave peak power sensor	MA24418A	12622	2024/05/21	2025/05/20
Rohde & Schwarz	Spectrum Analyzer	FSV40	101473	2024/01/16	2025/01/15
Unknown	10dB Attenuator	Unknown	F-03-EM190	2024/06/27	2025/06/26
Narda	20dB Attenuator	99899	0107	2024/06/27	2025/06/26

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC 1.1307 (B) & §2.1091- MPE-BASED EXEMPTION

Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(3)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2 / f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2 f$.
1,500-100,000	$19.2 R^2$.

R is the minimum separation distance in meters
f = frequency in MHz

Result

Mode	Frequency (MHz)	Tune up conducted power [#]	Antenna Gain [#]		ERP		Evaluation Distance (m)	ERP Limit (mW)
		(dBm)	(dBi)	(dBd)	(dBm)	(mW)		
BT	2402-2480	7.0	3.11	0.96	7.96	6.25	0.2	768
BLE	2402-2480	4.0	3.11	0.96	4.96	3.13	0.2	768
2.4G Wi-Fi	2412-2462	19.5	3.11	0.96	20.46	111.17	0.2	768
5.2G Wi-Fi	5180-5240	17.0	1.02	-1.13	15.87	38.64	0.2	768
5.3G Wi-Fi	5260-5320	18.5	1.02	-1.13	17.37	54.58	0.2	768
5.6G Wi-Fi	5500-5700	18.0	1.02	-1.13	16.87	48.64	0.2	768
5.8G Wi-Fi	5745-5825	14.5	1.02	-1.13	13.37	21.73	0.2	768

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
2. The BT, 2.4G Wi-Fi and 5G Wi-Fi cannot transmit at same time.
3. 0dBd=2.15dBi

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

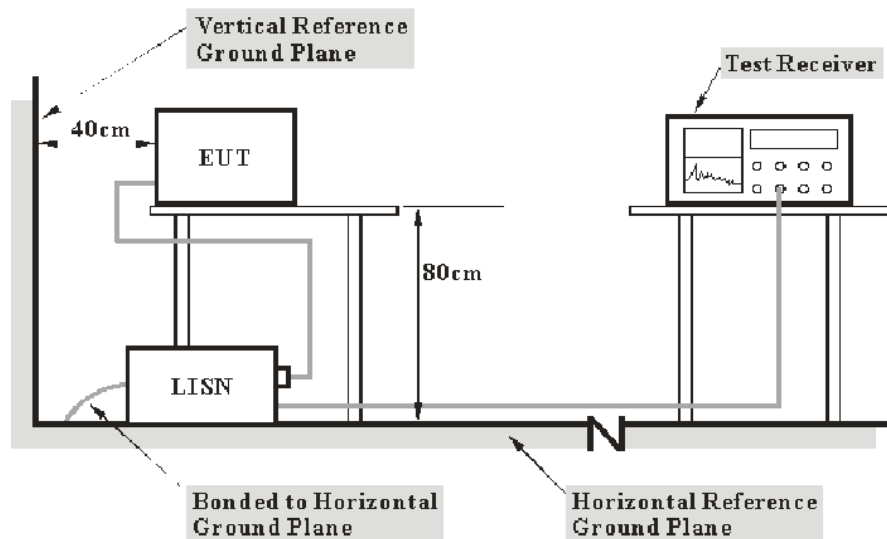
Antenna Connector Construction

The EUT has one internal antenna which was permanently attached, and the maximum antenna gain[#] is 1.02dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliant

FCC §15.407 (b) (6) §15.207 (a) - CONDUCTED EMISSIONS**Applicable Standard**

FCC §15.207, §15.407(b) (6)

EUT Setup

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

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

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

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

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

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

Test Procedure

During the conducted emission test, the adapter was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and Average detection mode.

Factor & Over Limit Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss}$$

The “**Over limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

$$\begin{aligned}\text{Over Limit} &= \text{Level} - \text{Limit} \\ \text{Level} &= \text{Read Level} + \text{Factor}\end{aligned}$$

Note: The term "cable loss" refers to the combination of a cable and a 10dB transient limiter (attenuator).

Test Data

Environmental Conditions

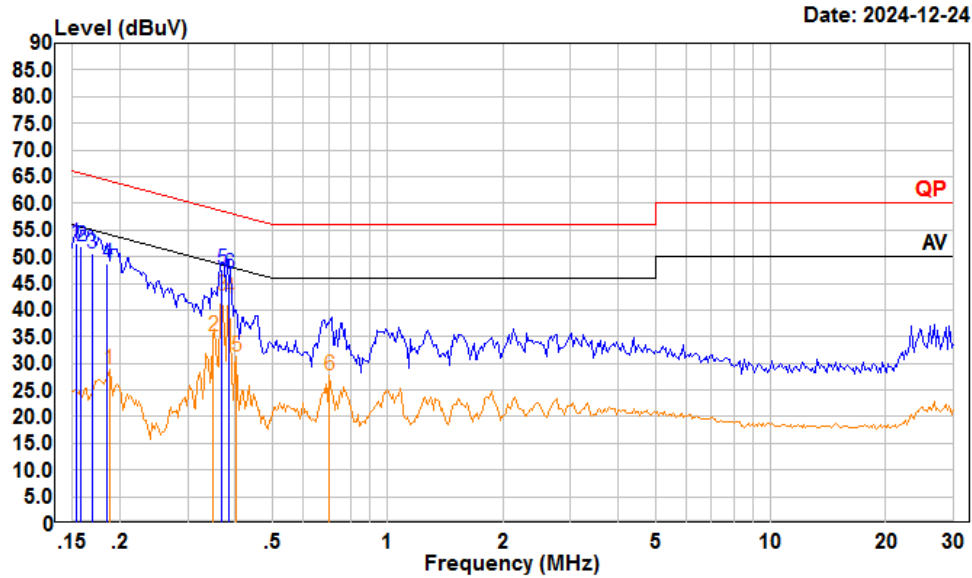
Temperature:	26 °C
Relative Humidity:	44 %
ATM Pressure:	101 kPa

The testing was performed by Macy Shi on 2024-12-24.

EUT operation mode: Transmitting (Maximum output power mode, 802.11 ax20 5260MHz)

Note: Worst case is Adapter1

AC 120V/60 Hz, Line



Trace: 1

Condition: Line

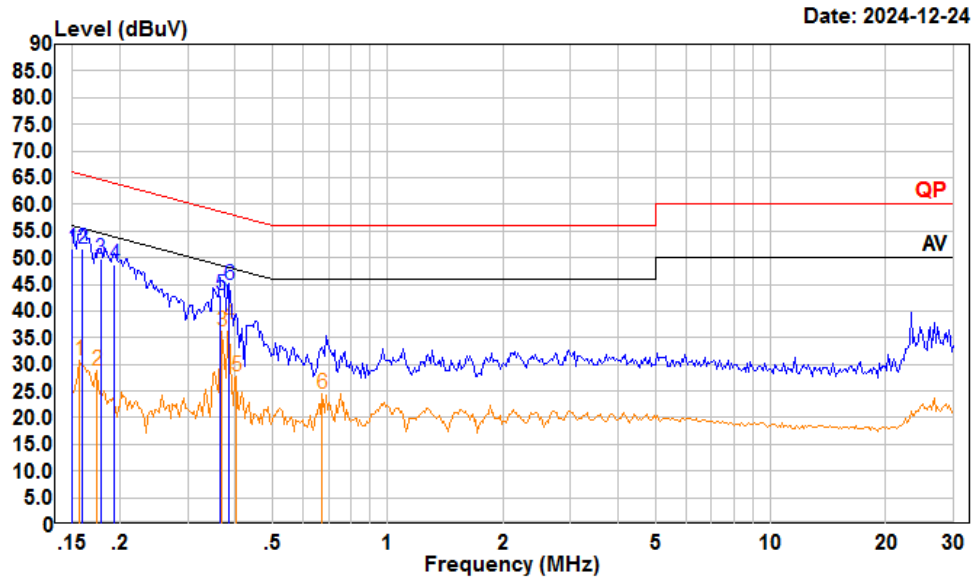
Project : 2401Y6777E-RF

tester : Macy.shi Note:Transmitting

Setting : RBW:9kHz VBW:Auto SWT:Auto

	Freq	Read Level	LISN Level	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dB	
1	0.153	31.40	52.42	10.89	10.13	65.82	-13.40 QP
2	0.158	31.00	52.00	10.88	10.12	65.56	-13.56 QP
3	0.169	29.70	50.66	10.86	10.10	65.03	-14.37 QP
4	0.185	27.70	48.62	10.83	10.09	64.24	-15.62 QP
5	0.369	26.80	47.51	10.60	10.11	58.52	-11.01 QP
6	0.385	26.09	46.79	10.59	10.11	58.17	-11.38 QP
	Freq	Read Level	LISN Level	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dB	
1	0.187	8.04	28.95	10.82	10.09	54.15	-25.20 Average
2	0.350	14.46	35.20	10.62	10.12	48.96	-13.76 Average
3	0.369	21.97	42.68	10.60	10.11	48.52	-5.84 Average
4	0.385	21.48	42.18	10.59	10.11	48.17	-5.99 Average
5	0.402	10.50	31.17	10.57	10.10	47.81	-16.64 Average
6	0.705	7.03	27.68	10.50	10.15	46.00	-18.32 Average

AC 120V/60 Hz, Neutral



Condition: Neutral

Project : 2401Y67777E-RF

tester : Macy.shi Note:Transmitting

Setting : RBW:9kHz VBW:Auto SWT:Auto

		Read		LISN	Cable	Limit	Over	
	Freq	Level	Level	Factor	Loss	Line	Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.150	30.90	51.63	10.60	10.13	66.00	-14.37	QP
2	0.160	30.99	51.67	10.56	10.12	65.47	-13.80	QP
3	0.178	29.30	49.88	10.48	10.10	64.59	-14.71	QP
4	0.193	28.11	48.62	10.42	10.09	63.89	-15.27	QP
5	0.365	22.20	42.91	10.60	10.11	58.61	-15.70	QP
6	0.385	24.10	44.82	10.61	10.11	58.17	-13.35	QP
	Freq	Read		LISN	Cable	Limit	Over	
	Freq	Level	Level	Factor	Loss	Line	Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.156	10.04	30.73	10.57	10.12	55.65	-24.92	Average
2	0.174	8.18	28.78	10.50	10.10	54.77	-25.99	Average
3	0.369	15.58	36.29	10.60	10.11	48.52	-12.23	Average
4	0.385	16.79	37.51	10.61	10.11	48.17	-10.66	Average
5	0.402	6.99	27.72	10.63	10.10	47.81	-20.09	Average
6	0.675	3.61	24.45	10.70	10.14	46.00	-21.55	Average

§15.205 & §15.209 & §15.407(B) - UNDESIRABLE EMISSION

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

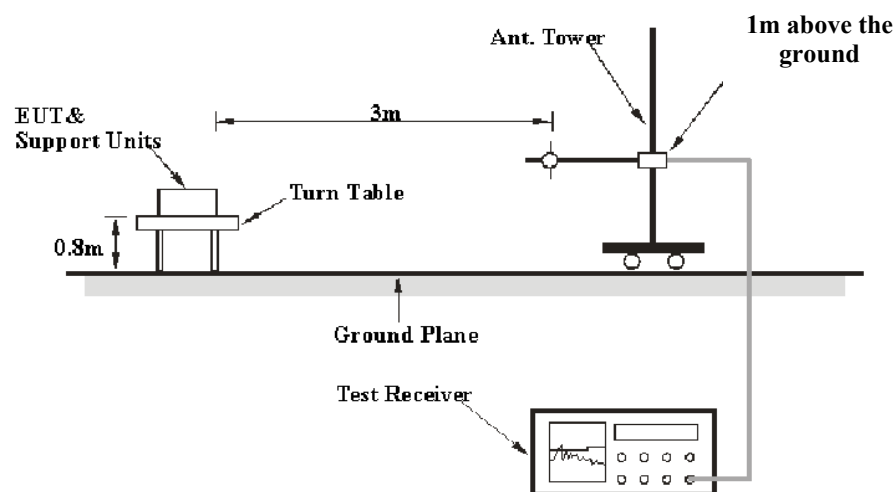
(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

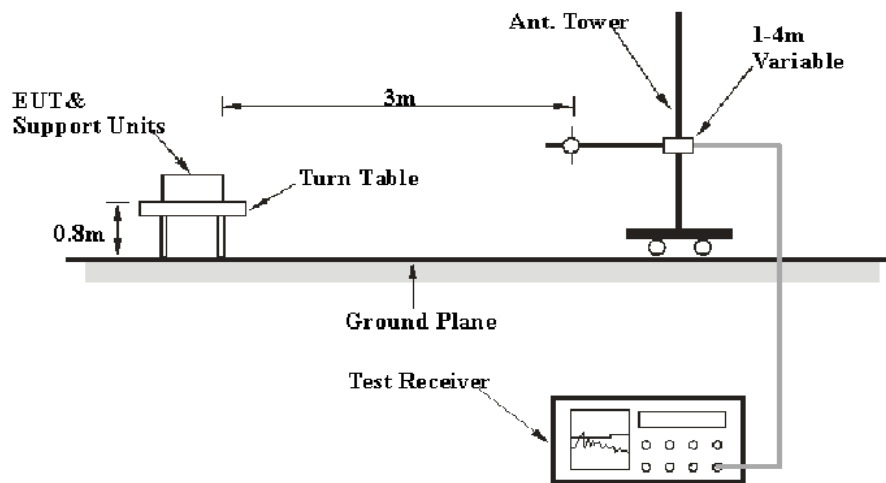
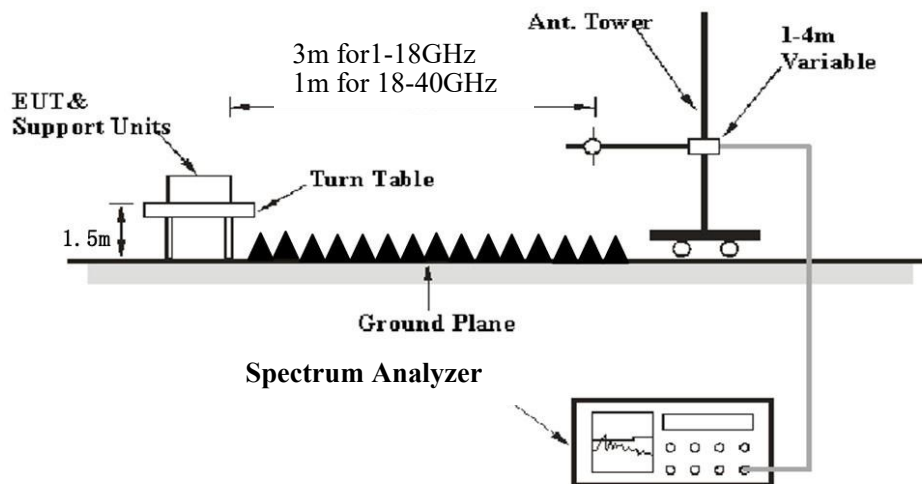
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

EUT Setup

9 kHz-30MHz:



30MHz-1GHz:**Above 1 GHz:**

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

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

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 40 GHz.

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

9 kHz-1GHz:

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

1-40GHz:

Pre-scan

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	5 kHz
	<98%	1MHz	≥1/Ton

Final measurement for emission identified during pre-scan

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

Note: Ton is minimum transmission duration

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

Test Procedure

Radiated Spurious Emission

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

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all the installation combinations.

All final data was recorded in Quasi-peak detection mode except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, average detection modes for frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

For 9 kHz-30MHz, the report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground-parallel) unless the margin is greater than 20 dB.

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

According to ANSI C63.10-2013,9.4: For field strength measurements made at other than the distance at which the applicable limit is specified, extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance). In some cases, a different distance correction factor may be required;

$$E_{\text{SpecLimit}} = E_{\text{Meas}} + 20 \log \left(\frac{d_{\text{Meas}}}{d_{\text{SpecLimit}}} \right)$$

where

$E_{\text{SpecLimit}}$	is the field strength of the emission at the distance specified by the limit, in dBμV/m
E_{Meas}	is the field strength of the emission at the measurement distance, in dBμV/m
d_{Meas}	is the measurement distance, in m
$d_{\text{SpecLimit}}$	is the distance specified by the limit, in m

So the extrapolation factor of 1m is $20 \cdot \log(1/3) = -9.5$ dB, for 18-40GHz range, the limit of 1m distance was added by 9.5dB from limit of 3m to compared with the result measurement at 1m distance.

Factor & Over Limit/Margin Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Over Limit/Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

$$\begin{aligned} \text{Over Limit} &= \text{Level} - \text{Limit}; \text{Margin} = \text{Limit} - \text{Corrected Amplitude} \\ \text{Level} / \text{Corrected Amplitude} &= \text{Read Level} + \text{Factor} \end{aligned}$$

Test Data**Environmental Conditions**

Temperature:	24~25 °C
Relative Humidity:	50~53 %
ATM Pressure:	101~101.1kPa

The testing was performed by Anson Su on 2024-11-16 for below 1GHz and Zenos Qiao from 2024-11-29 to 2024-11-30 for above 1GHz.

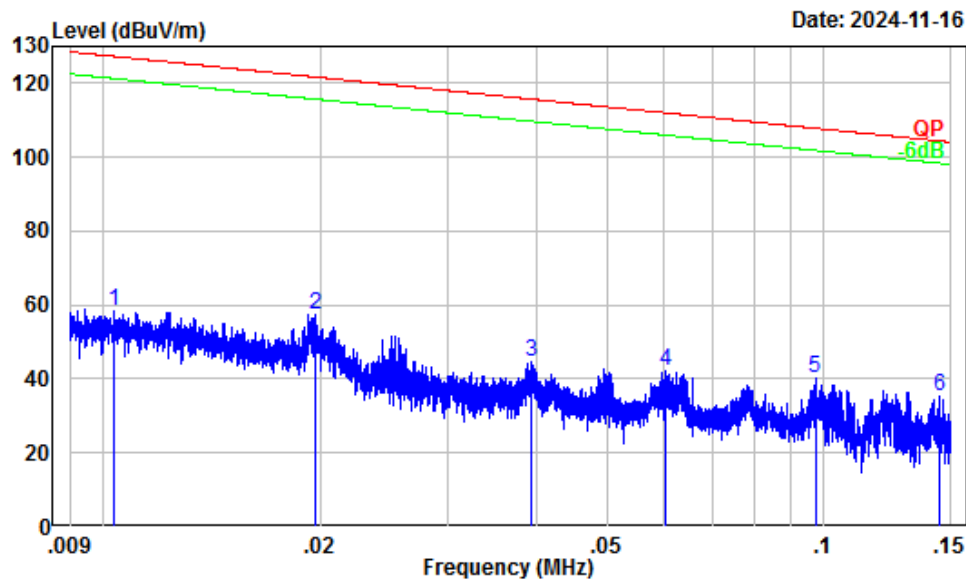
EUT operation mode: Transmitting (Worst case is POE)

Note: Pre-scan in the X, Y and Z axes of orientation, the worst case Z-axis of orientation was recorded.

9 kHz-30MHz: (Maximum output power mode, 802.11 ax20 5260MHz)

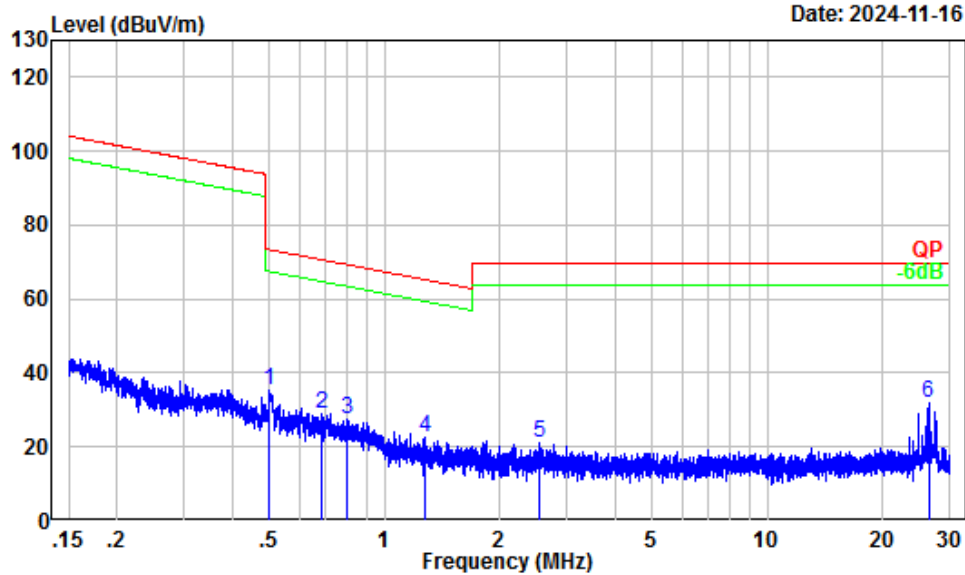
Note: When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.

Parallel (worst case)



Site : Chamber A
Condition : 3m
Project Number: 2401Y67777E-RF
Test Mode : 5G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.01	37.51	20.96	58.47	127.31	-68.84	Peak
2	0.02	32.76	24.63	57.39	121.73	-64.34	Peak
3	0.04	25.42	19.46	44.88	115.71	-70.83	Peak
4	0.06	21.67	20.59	42.26	111.99	-69.73	Peak
5	0.10	17.32	22.70	40.02	107.85	-67.83	Peak
6	0.14	14.97	20.59	35.56	104.41	-68.85	Peak

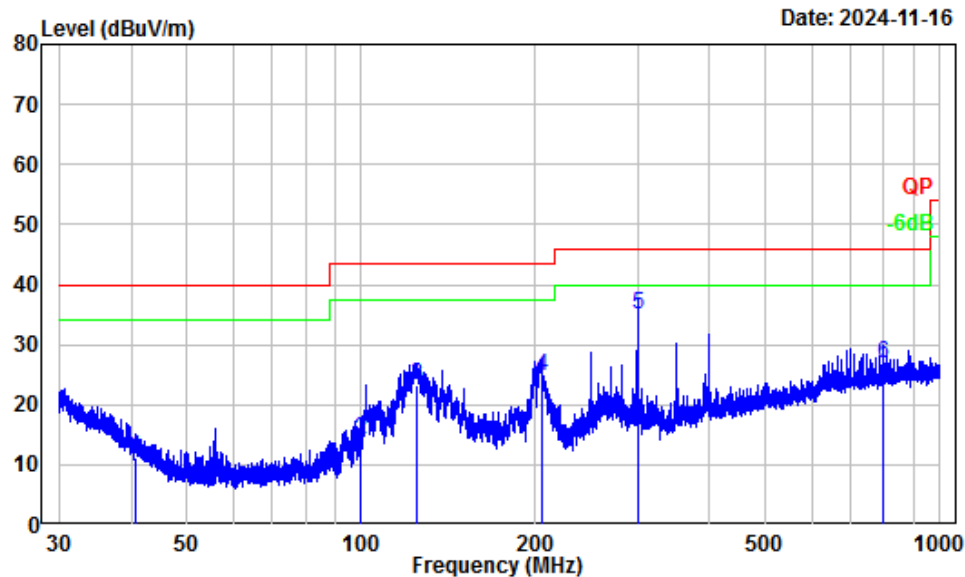


Site : Chamber A
Condition : 3m
Project Number: 2401Y67777E-RF
Test Mode : 5G WIFI Transmitting
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.50	3.52	31.68	35.20	73.66	-38.46	Peak
2	0.68	1.27	27.85	29.12	70.84	-41.72	Peak
3	0.80	-0.12	27.54	27.42	69.44	-42.02	Peak
4	1.28	-2.55	24.92	22.37	65.31	-42.94	Peak
5	2.55	-5.53	26.68	21.15	69.54	-48.39	Peak
6	26.38	-4.88	36.60	31.72	69.54	-37.82	Peak

30 MHz–1 GHz: (Maximum output power mode, 802.11 ax20 5260MHz)

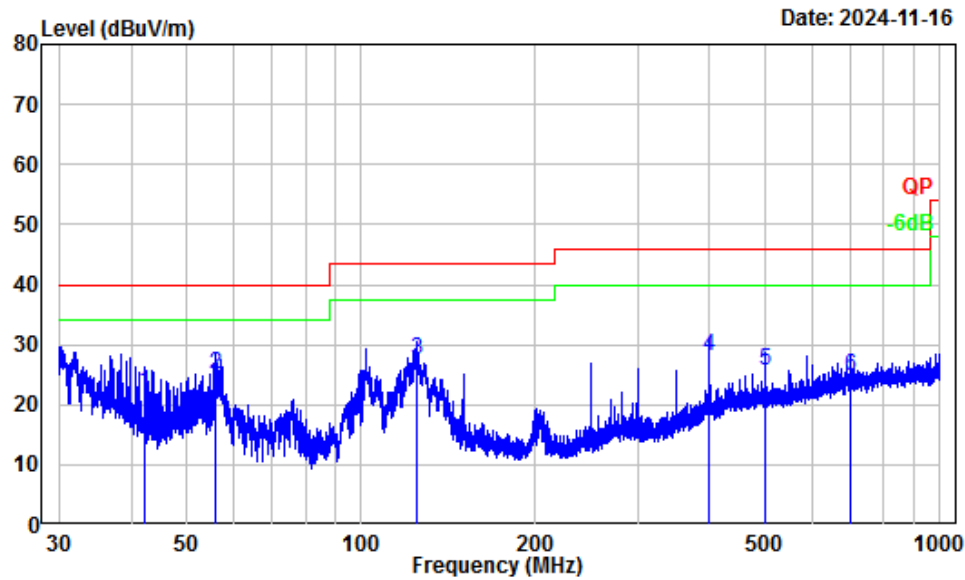
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401Y67777E-RF
Test Mode : 5G WIFI Transmitting
Tester : Anson Su

		Read		Limit	Over	Remark
Freq Factor		Level	Level	Line	Limit	
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.76	-12.90	23.95	11.05	40.00	-28.95 QP
2	100.01	-15.89	30.12	14.23	43.50	-29.27 QP
3	124.46	-11.14	34.26	23.12	43.50	-20.38 QP
4	204.69	-13.41	38.06	24.65	43.50	-18.85 QP
5	299.97	-11.20	46.20	35.00	46.00	-11.00 QP
6	800.03	-2.14	29.06	26.92	46.00	-19.08 QP

Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401Y67777E-RF
Test Mode : 5G WIFI Transmitting
Tester : Anson Su

	Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	42.21	-14.02	36.17	22.15	40.00	-17.85	QP
2	56.07	-18.32	43.44	25.12	40.00	-14.88	QP
3	124.68	-11.14	38.55	27.41	43.50	-16.09	QP
4	400.08	-8.41	36.35	27.94	46.00	-18.06	QP
5	500.08	-5.76	31.51	25.75	46.00	-20.25	QP
6	701.15	-3.50	28.41	24.91	46.00	-21.09	QP

Above 1GHz:**5150-5250 MHz:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a							
5180MHz							
10360.00	50.75	PK	H	13.07	63.82	68.2	-4.38
10360.00	51.32	PK	V	13.07	64.39	68.2	-3.81
5200MHz							
10400.00	51.08	PK	H	13.12	64.20	68.2	-4.00
10400.00	51.64	PK	V	13.12	64.76	68.2	-3.44
5240MHz							
10480.00	51.39	PK	H	13.07	64.46	68.2	-3.74
10480.00	51.96	PK	V	13.07	65.03	68.2	-3.17
802.11n20							
5180MHz							
10360.00	50.61	PK	H	13.07	63.68	68.2	-4.52
10360.00	51.14	PK	V	13.07	64.21	68.2	-3.99
5200MHz							
10400.00	50.93	PK	H	13.12	64.05	68.2	-4.15
10400.00	51.46	PK	V	13.12	64.58	68.2	-3.62
5240MHz							
10480.00	51.25	PK	H	13.07	64.32	68.2	-3.88
10480.00	51.78	PK	V	13.07	64.85	68.2	-3.35
802.11n40							
5190MHz							
10380.00	48.58	PK	H	13.09	61.67	68.2	-6.53
10380.00	49.02	PK	V	13.09	62.11	68.2	-6.09
5230MHz							
10460.00	48.87	PK	H	13.09	61.96	68.2	-6.24
10460.00	49.39	PK	V	13.09	62.48	68.2	-5.72

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5180MHz							
10360.00	50.73	PK	H	13.07	63.80	68.2	-4.40
10360.00	51.27	PK	V	13.07	64.34	68.2	-3.86
5200MHz							
10400.00	51.05	PK	H	13.12	64.17	68.2	-4.03
10400.00	51.56	PK	V	13.12	64.68	68.2	-3.52
5240MHz							
10480.00	51.34	PK	H	13.07	64.41	68.2	-3.79
10480.00	51.88	PK	V	13.07	64.95	68.2	-3.25
802.11ax40							
5190MHz							
10380.00	48.73	PK	H	13.09	61.82	68.2	-6.38
10380.00	49.12	PK	V	13.09	62.21	68.2	-5.99
5230MHz							
10460.00	49.11	PK	H	13.09	62.20	68.2	-6.00
10460.00	49.54	PK	V	13.09	62.63	68.2	-5.57

5250-5350MHz:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a							
5260MHz							
10520.00	50.22	PK	H	13.05	63.27	68.2	-4.93
10520.00	51.15	PK	V	13.05	64.20	68.2	-4.00
5280MHz							
10560.00	50.54	PK	H	13.02	63.56	68.2	-4.64
10560.00	51.46	PK	V	13.02	64.48	68.2	-3.72
5320MHz							
10640.00	50.97	PK	H	13.19	64.16	74	-9.84
10640.00	37.01	AV	H	13.19	50.20	54	-3.80
10640.00	51.80	PK	V	13.19	64.99	74	-9.01
10640.00	37.73	AV	V	13.19	50.92	54	-3.08
802.11n20							
5260MHz							
10520.00	50.09	PK	H	13.05	63.14	68.2	-5.06
10520.00	51.04	PK	V	13.05	64.09	68.2	-4.11
5280MHz							
10560.00	50.41	PK	H	13.02	63.43	68.2	-4.77
10560.00	51.35	PK	V	13.02	64.37	68.2	-3.83
5320MHz							
10640.00	50.77	PK	H	13.19	63.96	74	-10.04
10640.00	36.69	AV	H	13.19	49.88	54	-4.12
10640.00	51.64	PK	V	13.19	64.83	74	-9.17
10640.00	37.58	AV	V	13.19	50.77	54	-3.23
802.11n40							
5270MHz							
10540.00	46.48	PK	H	13.03	59.51	68.2	-8.69
10540.00	46.92	PK	V	13.03	59.95	68.2	-8.25
5310MHz							
10620.00	47.27	PK	H	13.09	60.36	74	-13.64
10620.00	34.08	AV	H	13.09	47.17	54	-6.83
10620.00	47.89	PK	V	13.09	60.98	74	-13.02
10620.00	34.65	AV	V	13.09	47.74	54	-6.26

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5260MHz							
10520.00	49.93	PK	H	13.05	62.98	68.2	-5.22
10520.00	50.81	PK	V	13.05	63.86	68.2	-4.34
5280MHz							
10560.00	50.25	PK	H	13.02	63.27	68.2	-4.93
10560.00	51.16	PK	V	13.02	64.18	68.2	-4.02
5320MHz							
10640.00	50.58	PK	H	13.19	63.77	74	-10.23
10640.00	36.86	AV	H	13.19	50.05	54	-3.95
10640.00	51.47	PK	V	13.19	64.66	74	-9.34
10640.00	37.70	AV	V	13.19	50.89	54	-3.11
802.11ax40							
5270MHz							
10540.00	46.37	PK	H	13.03	59.40	68.2	-8.80
10540.00	46.88	PK	V	13.03	59.91	68.2	-8.29
5310MHz							
10620.00	47.19	PK	H	13.09	60.28	74	-13.72
10620.00	34.27	AV	H	13.09	47.36	54	-6.64
10620.00	47.84	PK	V	13.09	60.93	74	-13.07
10620.00	34.90	AV	V	13.09	47.99	54	-6.01

5470-5725MHz:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a							
5500MHz							
11000.00	46.45	PK	H	13.98	60.43	74	-13.57
11000.00	32.14	AV	H	13.98	46.12	54	-7.88
11000.00	47.27	PK	V	13.98	61.25	74	-12.75
11000.00	32.63	AV	V	13.98	46.61	54	-7.39
5580MHz							
11160.00	46.74	PK	H	13.62	60.36	74	-13.64
11160.00	32.35	AV	H	13.62	45.97	54	-8.03
11160.00	47.58	PK	V	13.62	61.20	74	-12.80
11160.00	32.82	AV	V	13.62	46.44	54	-7.56
5700MHz							
11400.00	47.06	PK	H	14.08	61.14	74	-12.86
11400.00	32.57	AV	H	14.08	46.65	54	-7.35
11400.00	47.89	PK	V	14.08	61.97	74	-12.03
11400.00	33.05	AV	V	14.08	47.13	54	-6.87
802.11n20							
5500MHz							
11000.00	46.34	PK	H	13.98	60.32	74	-13.68
11000.00	32.02	AV	H	13.98	46.00	54	-8.00
11000.00	47.15	PK	V	13.98	61.13	74	-12.87
11000.00	32.53	AV	V	13.98	46.51	54	-7.49
5580MHz							
11160.00	46.66	PK	H	13.62	60.28	74	-13.72
11160.00	32.25	AV	H	13.62	45.87	54	-8.13
11160.00	47.49	PK	V	13.62	61.11	74	-12.89
11160.00	32.74	AV	V	13.62	46.36	54	-7.64
5700MHz							
11400.00	47.01	PK	H	14.08	61.09	74	-12.91
11400.00	32.47	AV	H	14.08	46.55	54	-7.45
11400.00	47.83	PK	V	14.08	61.91	74	-12.09
11400.00	32.98	AV	V	14.08	47.06	54	-6.94

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11n40							
5510MHz							
11020.00	45.68	PK	H	13.89	59.57	74	-14.43
11020.00	31.07	AV	H	13.89	44.96	54	-9.04
11020.00	46.49	PK	V	13.89	60.38	74	-13.62
11020.00	31.54	AV	V	13.89	45.43	54	-8.57
5550MHz							
11100.00	46.09	PK	H	13.53	59.62	74	-14.38
11100.00	31.36	AV	H	13.53	44.89	54	-9.11
11100.00	46.91	PK	V	13.53	60.44	74	-13.56
11100.00	31.85	AV	V	13.53	45.38	54	-8.62
5670MHz							
11340.00	46.53	PK	H	13.99	60.52	74	-13.48
11340.00	31.75	AV	H	13.99	45.74	54	-8.26
11340.00	47.32	PK	V	13.99	61.31	74	-12.69
11340.00	32.18	AV	V	13.99	46.17	54	-7.83

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5500MHz							
11000.00	46.48	PK	H	13.98	60.46	74	-13.54
11000.00	32.22	AV	H	13.98	46.20	54	-7.80
11000.00	47.35	PK	V	13.98	61.33	74	-12.67
11000.00	32.74	AV	V	13.98	46.72	54	-7.28
5580MHz							
11160.00	46.80	PK	H	13.62	60.42	74	-13.58
11160.00	32.43	AV	H	13.62	46.05	54	-7.95
11160.00	47.64	PK	V	13.62	61.26	74	-12.74
11160.00	32.99	AV	V	13.62	46.61	54	-7.39
5700MHz							
11400.00	47.13	PK	H	14.08	61.21	74	-12.79
11400.00	32.65	AV	H	14.08	46.73	54	-7.27
11400.00	47.96	PK	V	14.08	62.04	74	-11.96
11400.00	33.21	AV	V	14.08	47.29	54	-6.71
802.11ax40							
5510MHz							
11020.00	45.64	PK	H	13.89	59.53	74	-14.47
11020.00	31.32	AV	H	13.89	45.21	54	-8.79
11020.00	46.43	PK	V	13.89	60.32	74	-13.68
11020.00	31.70	AV	V	13.89	45.59	54	-8.41
5550MHz							
11100.00	46.05	PK	H	13.53	59.58	74	-14.42
11100.00	31.61	AV	H	13.53	45.14	54	-8.86
11100.00	46.87	PK	V	13.53	60.40	74	-13.60
11100.00	32.02	AV	V	13.53	45.55	54	-8.45
5670MHz							
11340.00	46.44	PK	H	13.99	60.43	74	-13.57
11340.00	31.93	AV	H	13.99	45.92	54	-8.08
11340.00	47.26	PK	V	13.99	61.25	74	-12.75
11340.00	32.35	AV	V	13.99	46.34	54	-7.66

5725-5850 MHz:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a							
5745MHz							
11490.00	45.64	PK	H	14.31	59.95	74	-14.05
11490.00	30.93	AV	H	14.31	45.24	54	-8.76
11490.00	46.17	PK	V	14.31	60.48	74	-13.52
11490.00	31.21	AV	V	14.31	45.52	54	-8.48
5785MHz							
11570.00	46.36	PK	H	14.05	60.41	74	-13.59
11570.00	31.65	AV	H	14.05	45.70	54	-8.30
11570.00	46.94	PK	V	14.05	60.99	74	-13.01
11570.00	31.89	AV	V	14.05	45.94	54	-8.06
5825MHz							
11650.00	47.19	PK	H	13.83	61.02	74	-12.98
11650.00	32.28	AV	H	13.83	46.11	54	-7.89
11650.00	47.72	PK	V	13.83	61.55	74	-12.45
11650.00	32.53	AV	V	13.83	46.36	54	-7.64
802.11n20							
5745MHz							
11490.00	46.02	PK	H	14.31	60.33	74	-13.67
11490.00	31.18	AV	H	14.31	45.49	54	-8.51
11490.00	46.54	PK	V	14.31	60.85	74	-13.15
11490.00	31.41	AV	V	14.31	45.72	54	-8.28
5785MHz							
11570.00	46.69	PK	H	14.05	60.74	74	-13.26
11570.00	31.77	AV	H	14.05	45.82	54	-8.18
11570.00	47.23	PK	V	14.05	61.28	74	-12.72
11570.00	32.02	AV	V	14.05	46.07	54	-7.93
5825MHz							
11650.00	47.40	PK	H	13.83	61.23	74	-12.77
11650.00	32.32	AV	H	13.83	46.15	54	-7.85
11650.00	47.95	PK	V	13.83	61.78	74	-12.22
11650.00	32.64	AV	V	13.83	46.47	54	-7.53

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11n40							
5755MHz							
11510.00	45.40	PK	H	14.29	59.69	74	-14.31
11510.00	31.12	AV	H	14.29	45.41	54	-8.59
11510.00	45.89	PK	V	14.29	60.18	74	-13.82
11510.00	31.36	AV	V	14.29	45.65	54	-8.35
5795MHz							
11590.00	46.62	PK	H	13.97	60.59	74	-13.41
11590.00	32.35	AV	H	13.97	46.32	54	-7.68
11590.00	47.14	PK	V	13.97	61.11	74	-12.89
11590.00	32.59	AV	V	13.97	46.56	54	-7.44

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5745MHz							
11490.00	46.19	PK	H	14.31	60.50	74	-13.50
11490.00	31.27	AV	H	14.31	45.58	54	-8.42
11490.00	46.71	PK	V	14.31	61.02	74	-12.98
11490.00	31.52	AV	V	14.31	45.83	54	-8.17
5785MHz							
11570.00	46.87	PK	H	14.05	60.92	74	-13.08
11570.00	31.90	AV	H	14.05	45.95	54	-8.05
11570.00	47.39	PK	V	14.05	61.44	74	-12.56
11570.00	32.13	AV	V	14.05	46.18	54	-7.82
5825MHz							
11650.00	47.58	PK	H	13.83	61.41	74	-12.59
11650.00	32.49	AV	H	13.83	46.32	54	-7.68
11650.00	48.06	PK	V	13.83	61.89	74	-12.11
11650.00	32.75	AV	V	13.83	46.58	54	-7.42
802.11ax40							
5755MHz							
11510.00	45.64	PK	H	14.29	59.93	74	-14.07
11510.00	31.25	AV	H	14.29	45.54	54	-8.46
11510.00	46.10	PK	V	14.29	60.39	74	-13.61
11510.00	31.49	AV	V	14.29	45.78	54	-8.22
5795MHz							
11590.00	46.86	PK	H	13.97	60.83	74	-13.17
11590.00	32.48	AV	H	13.97	46.45	54	-7.55
11590.00	47.37	PK	V	13.97	61.34	74	-12.66
11590.00	32.75	AV	V	13.97	46.72	54	-7.28

Note:

Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

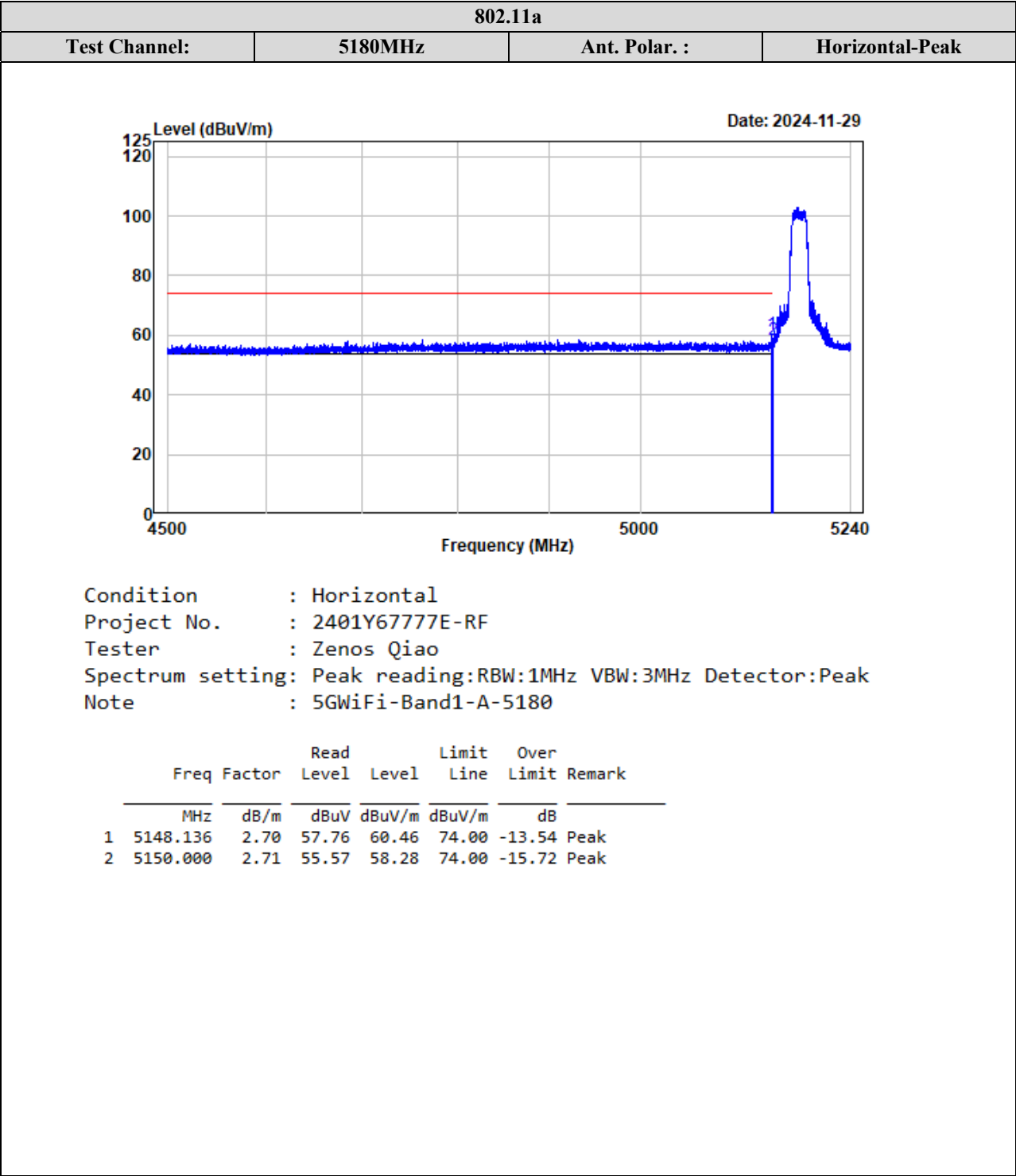
Corrected Amplitude = Factor + Reading

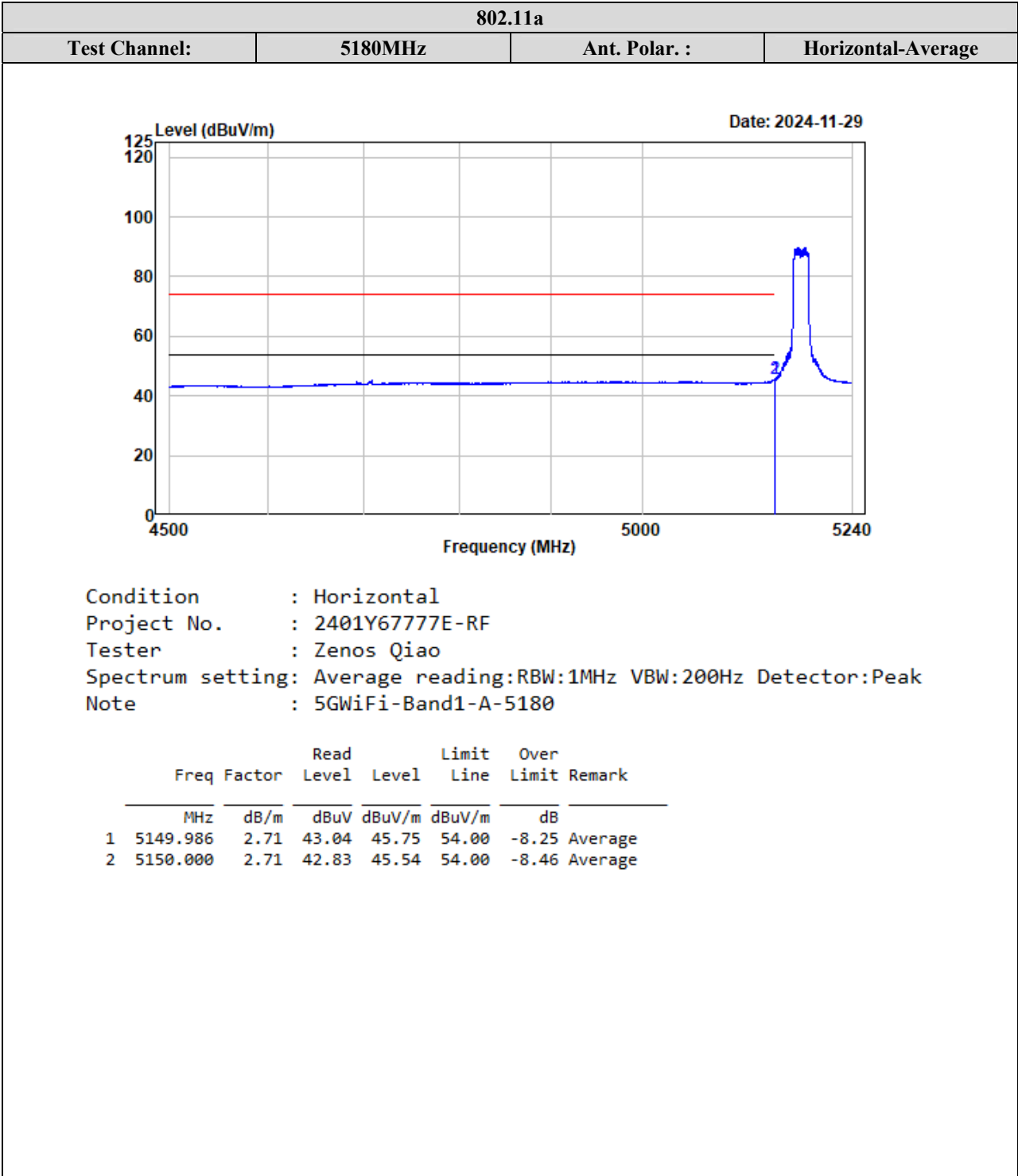
Margin = Corrected. Amplitude - Limit

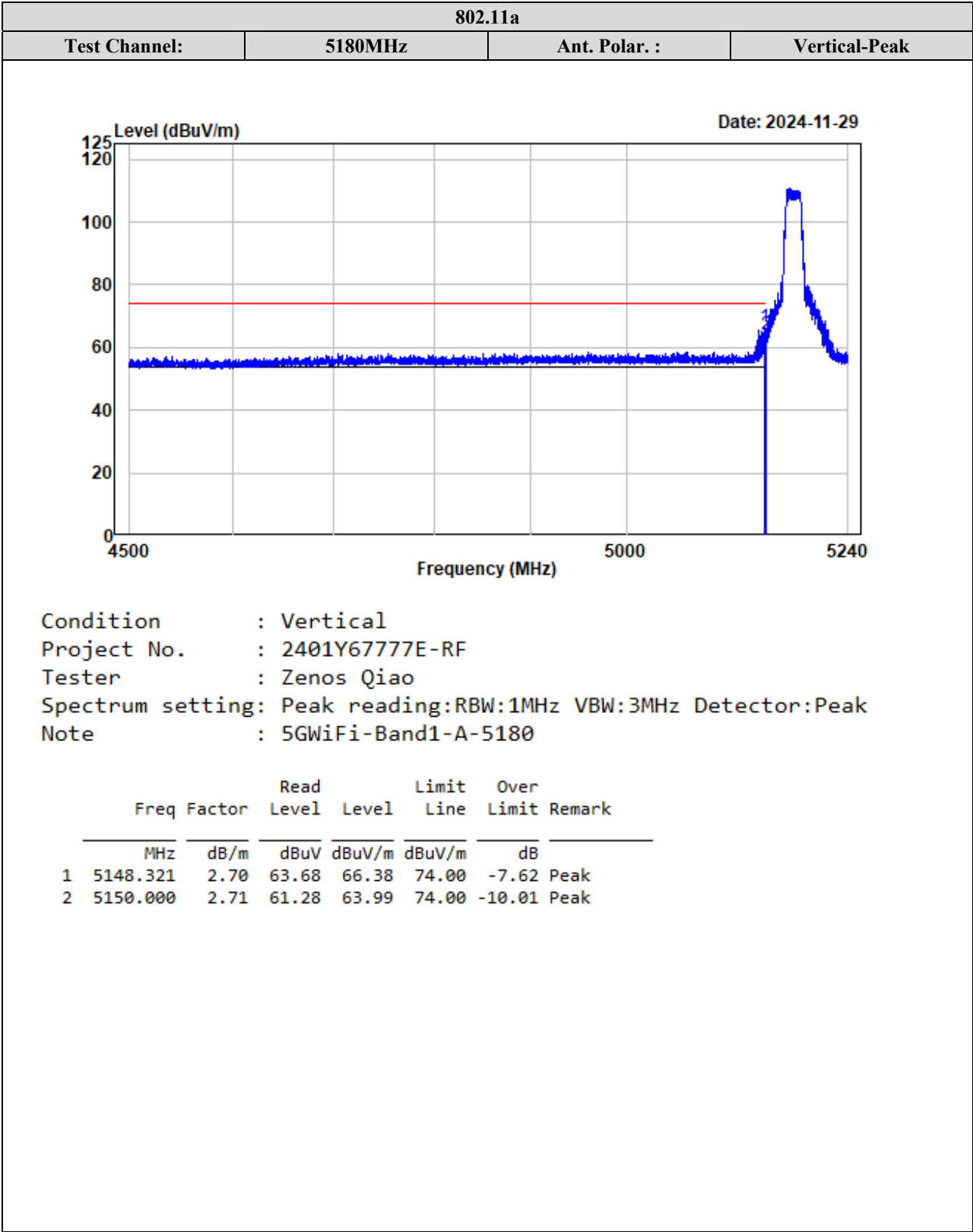
The other spurious emission which is in the noise floor level was not recorded.

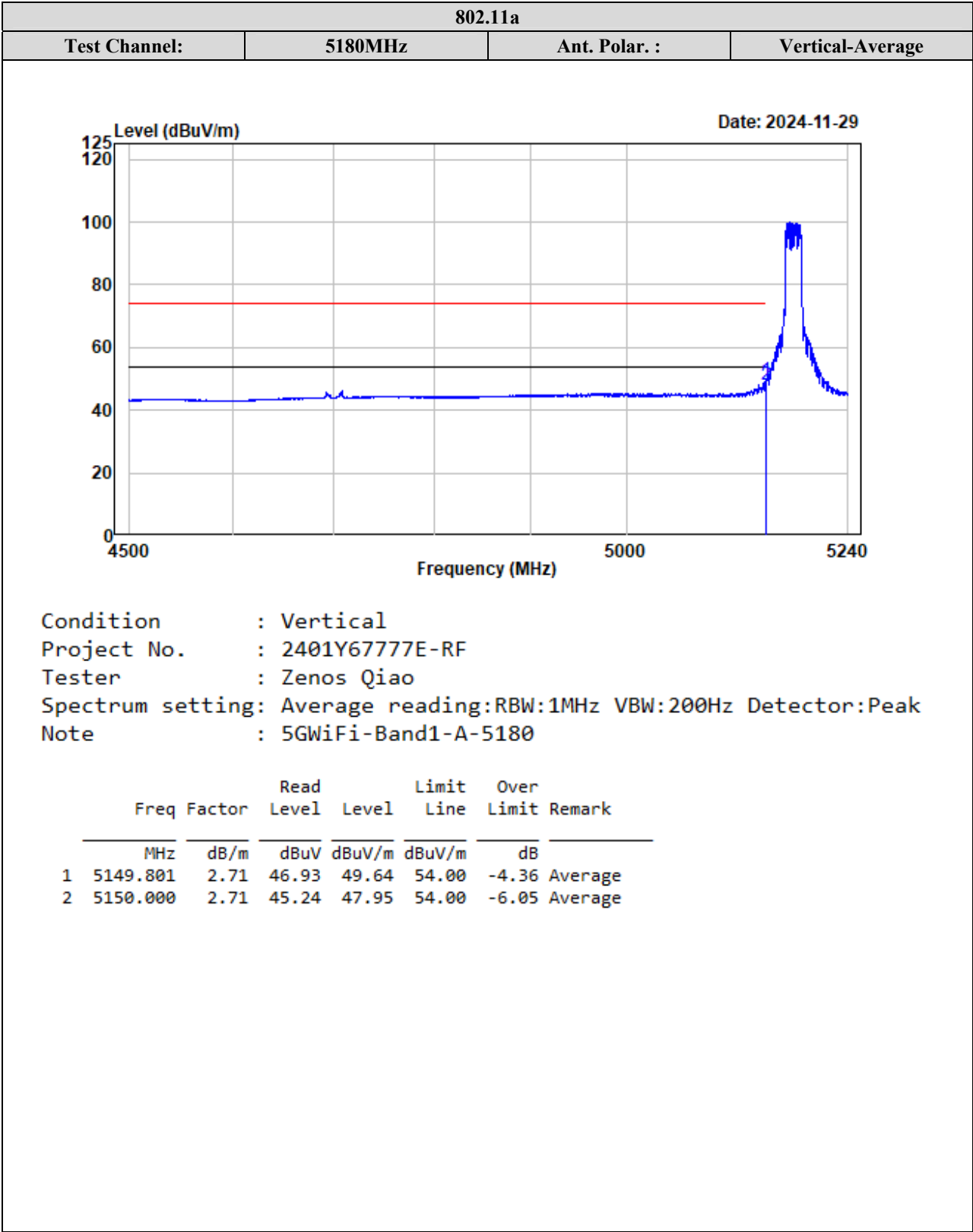
Test plots for Band Edge Measurements (Radiated)

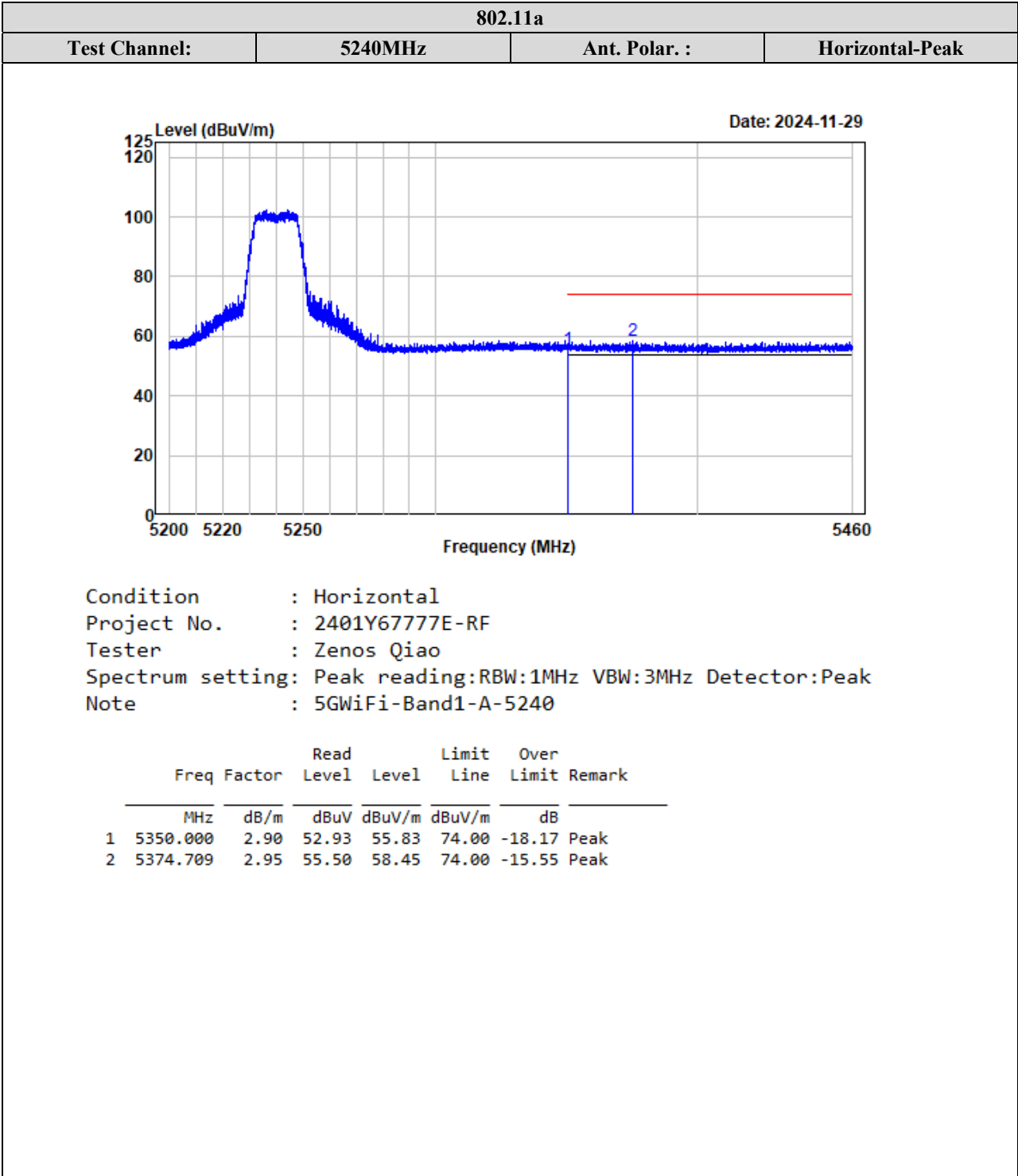
5150-5250MHz:

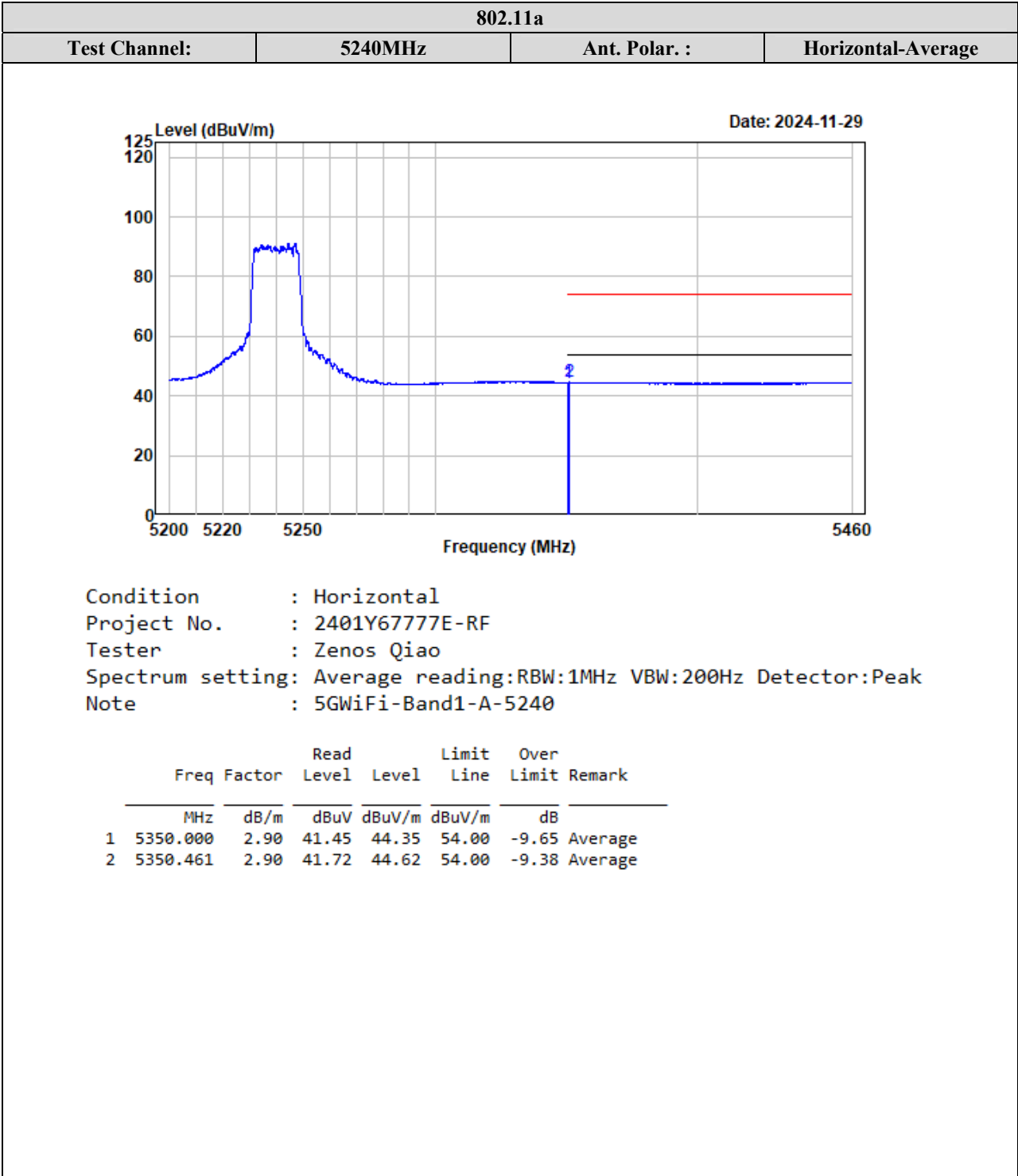


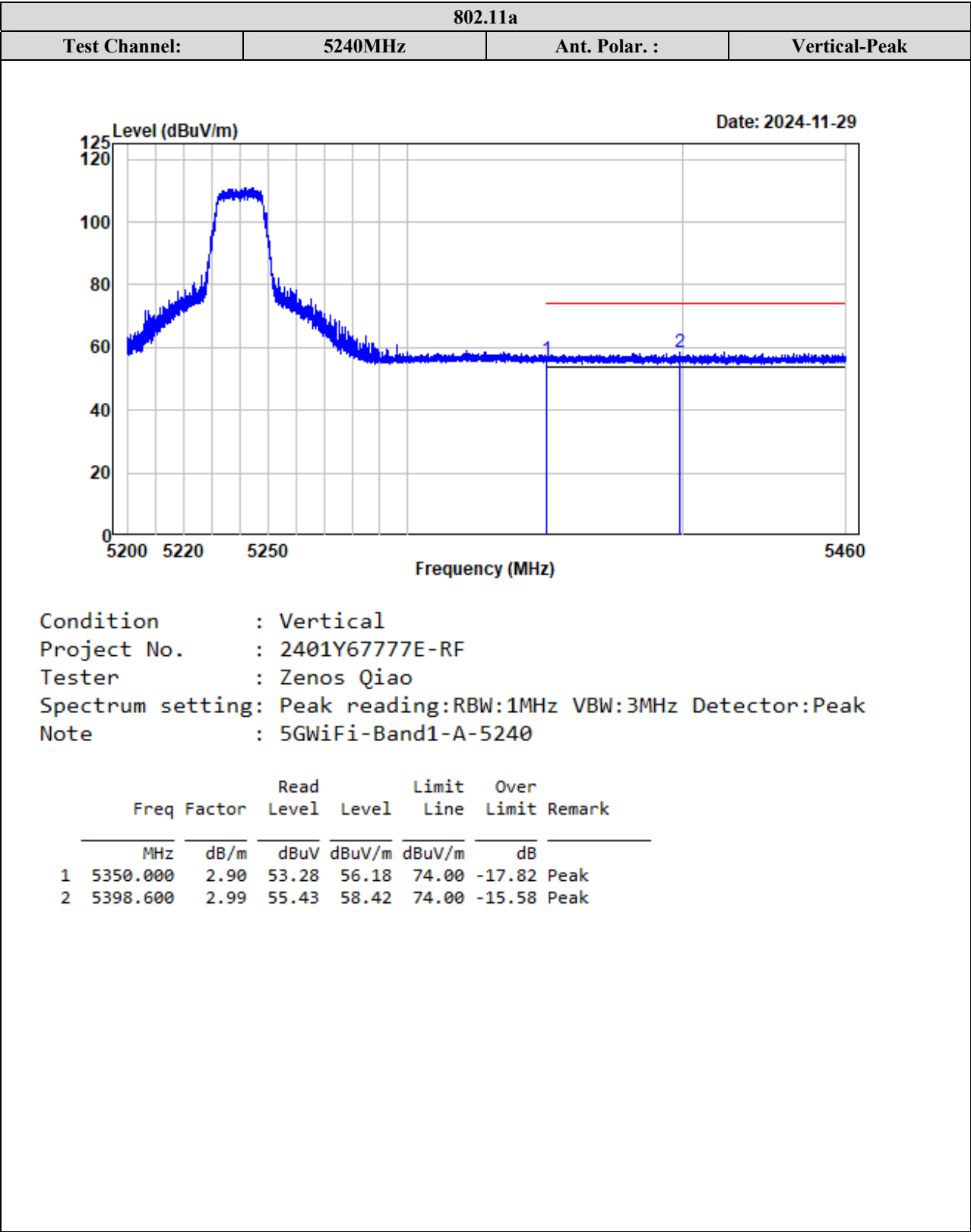








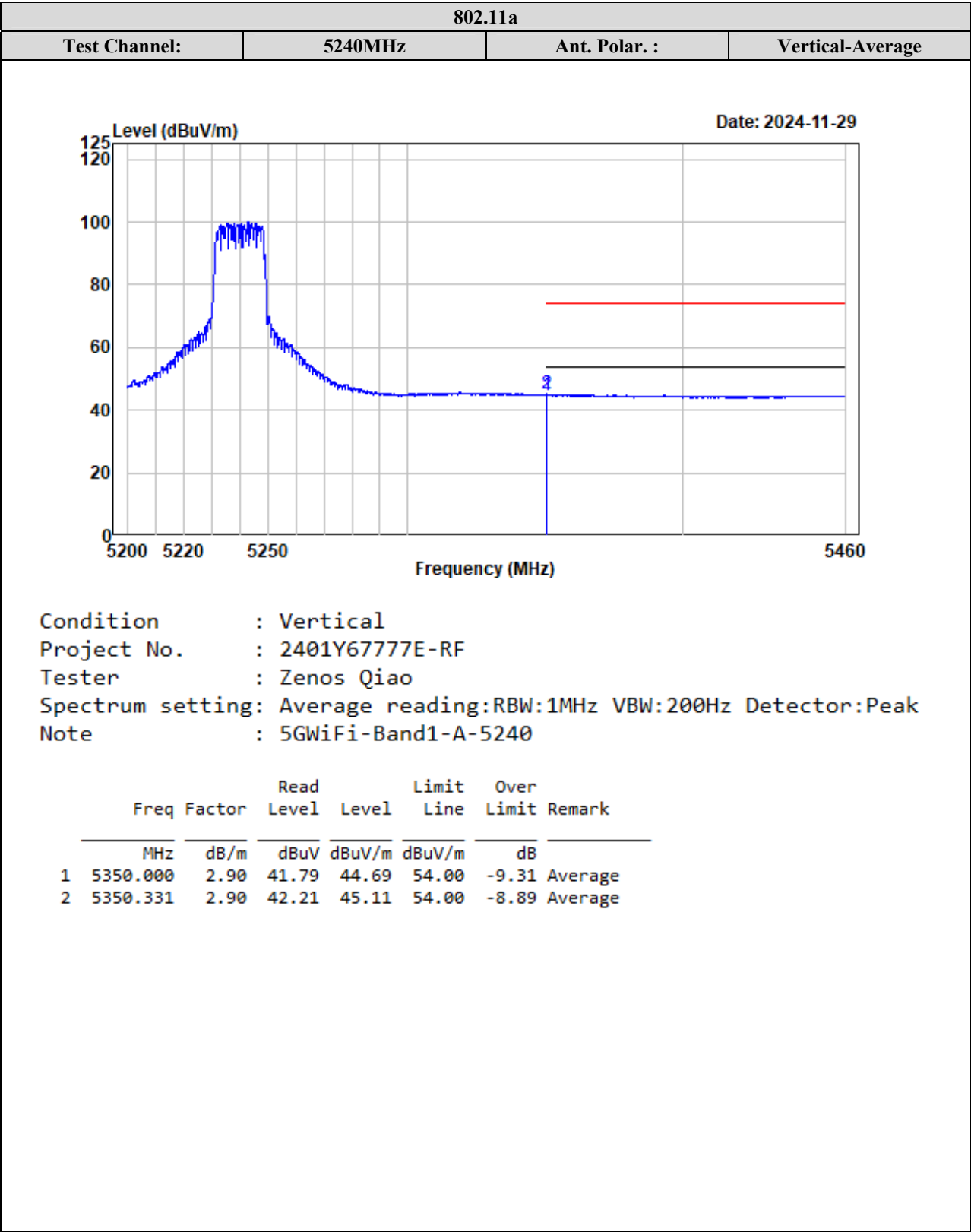


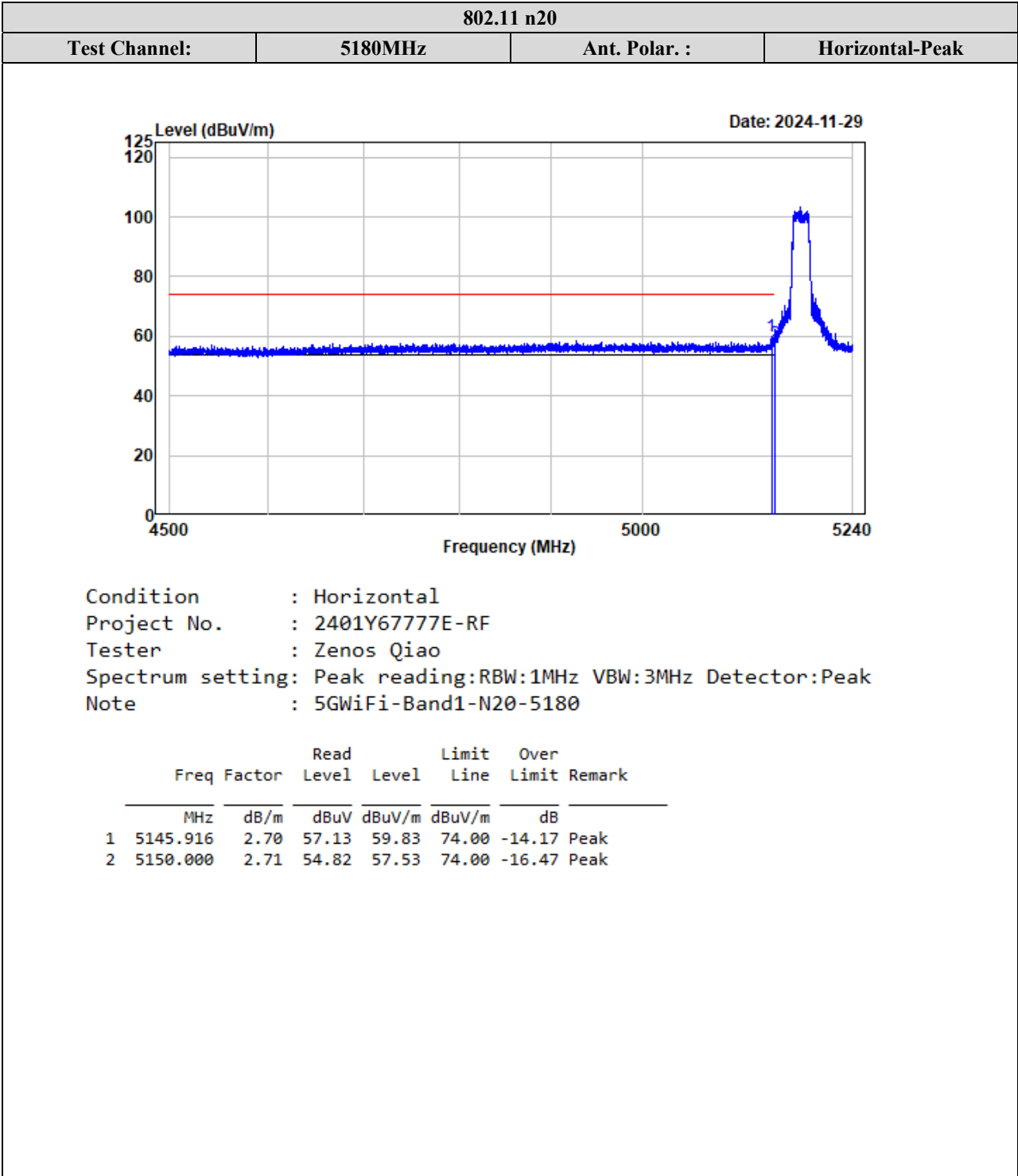


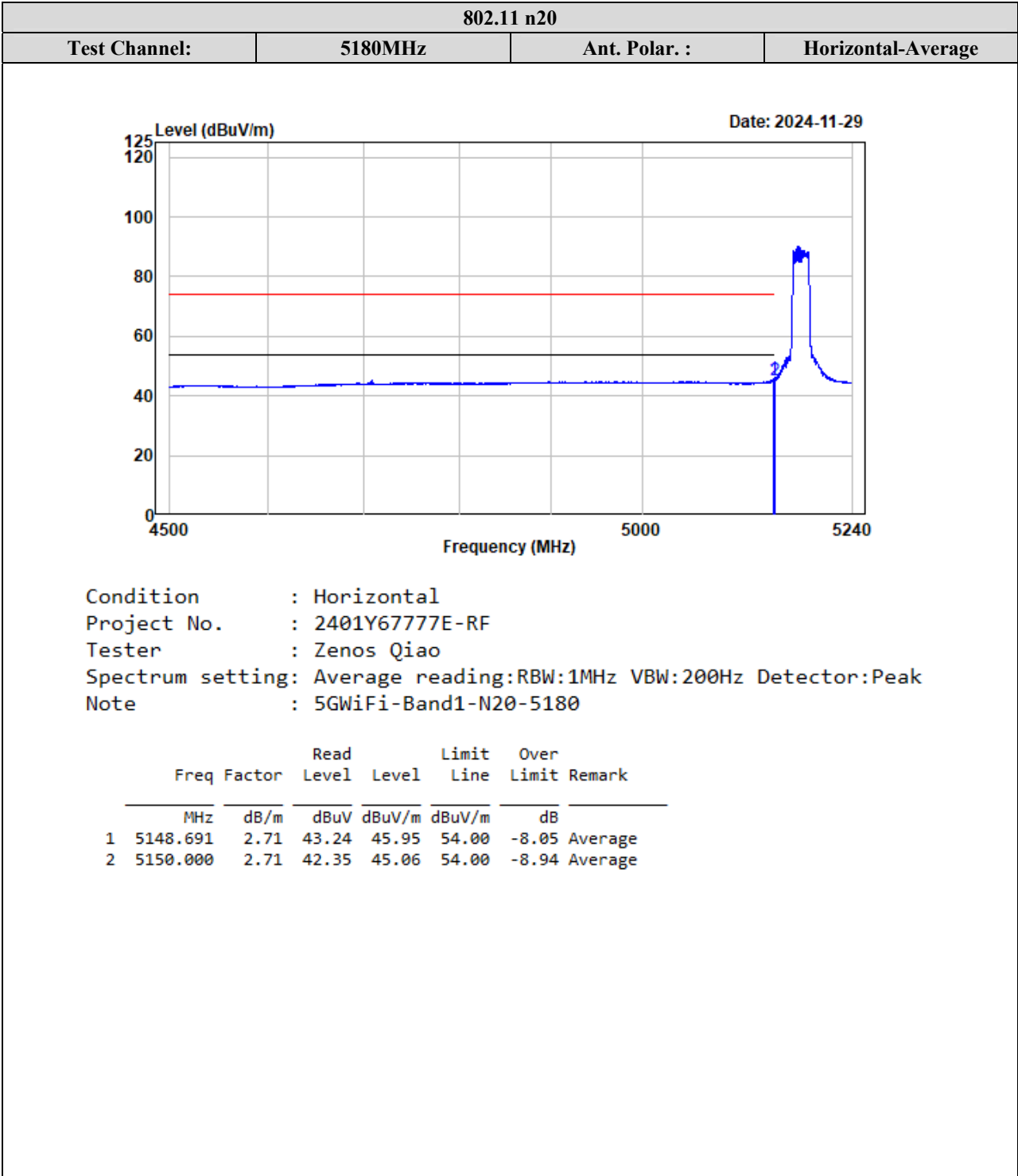
TR-EM-RF015

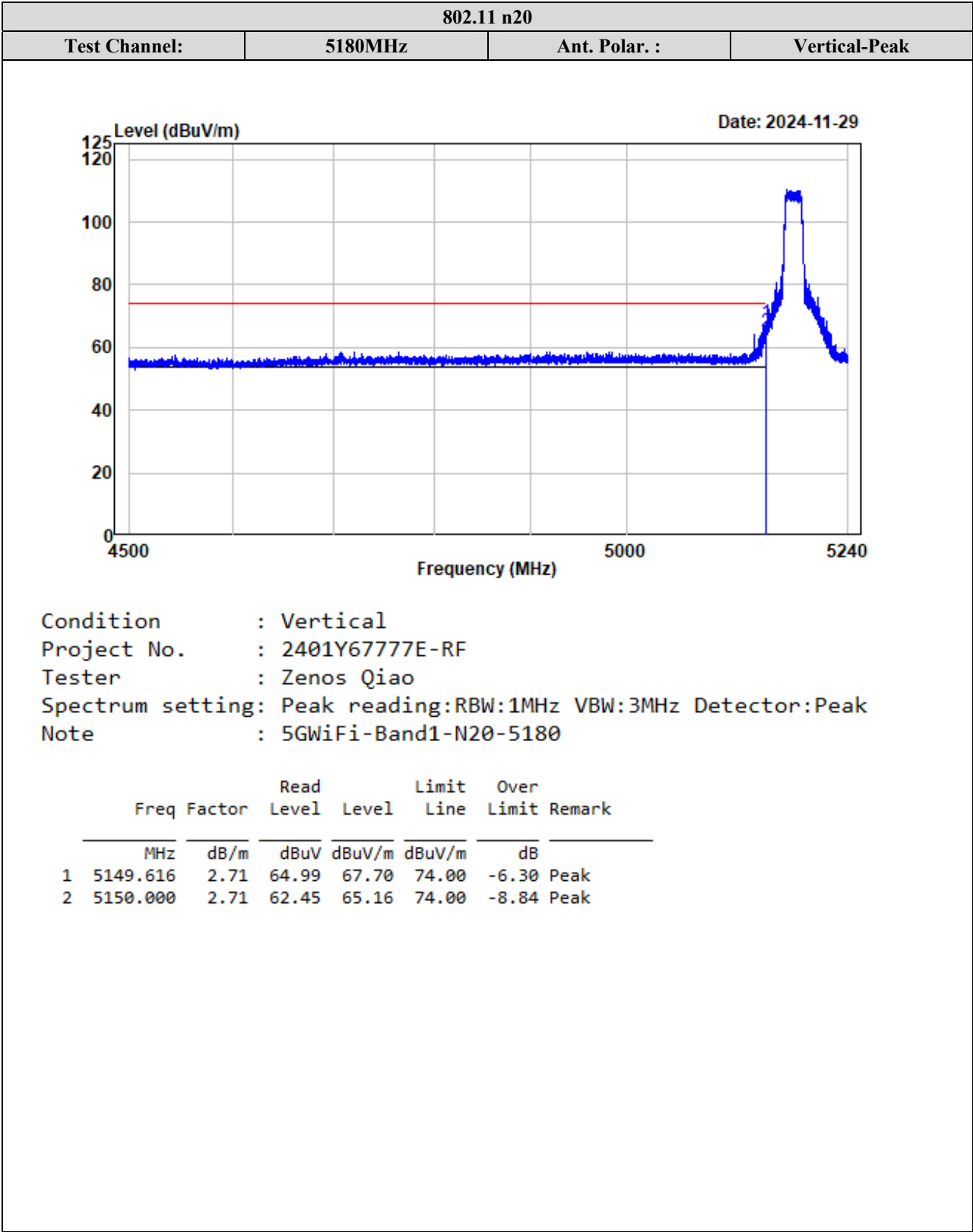
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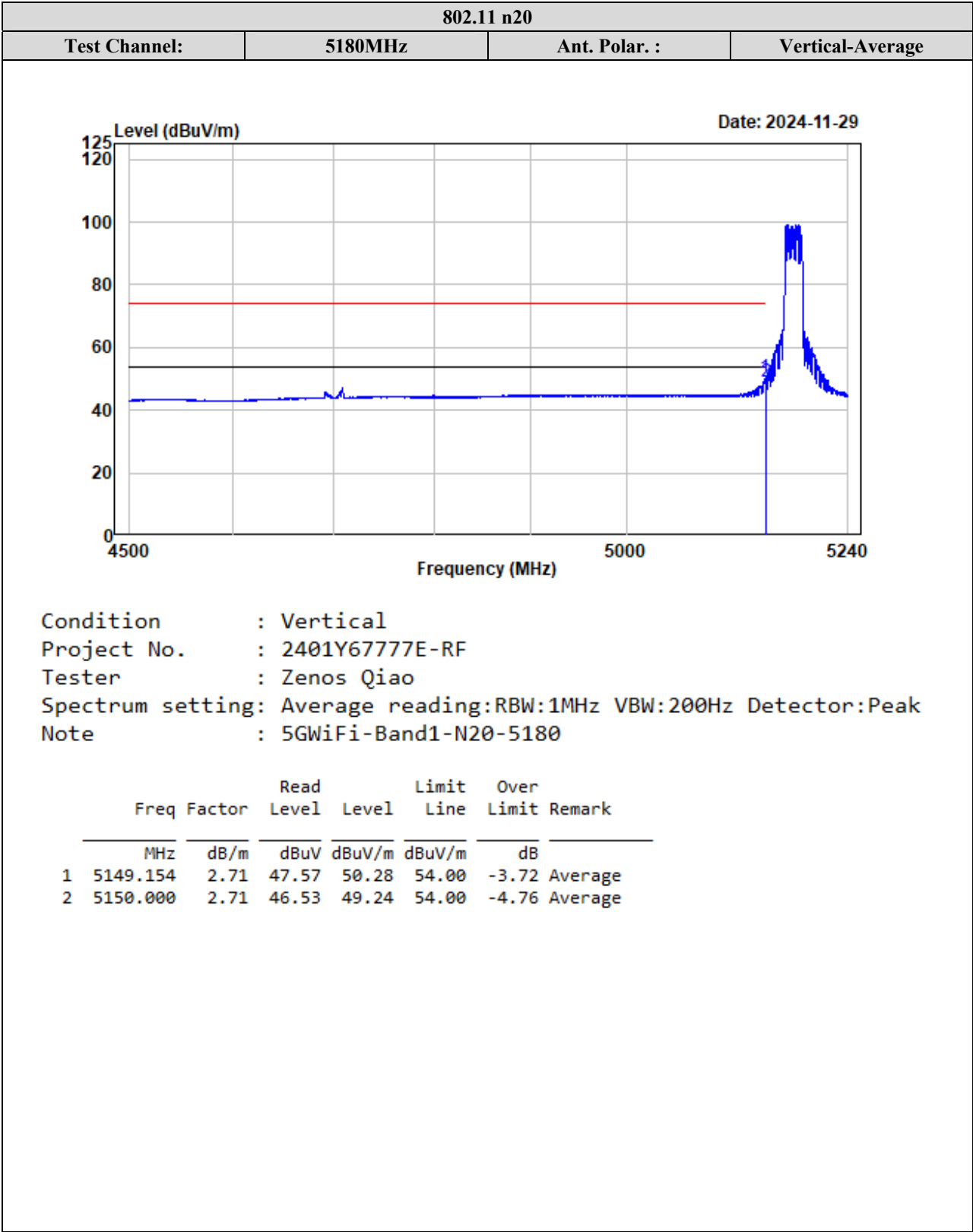
Version 3.0

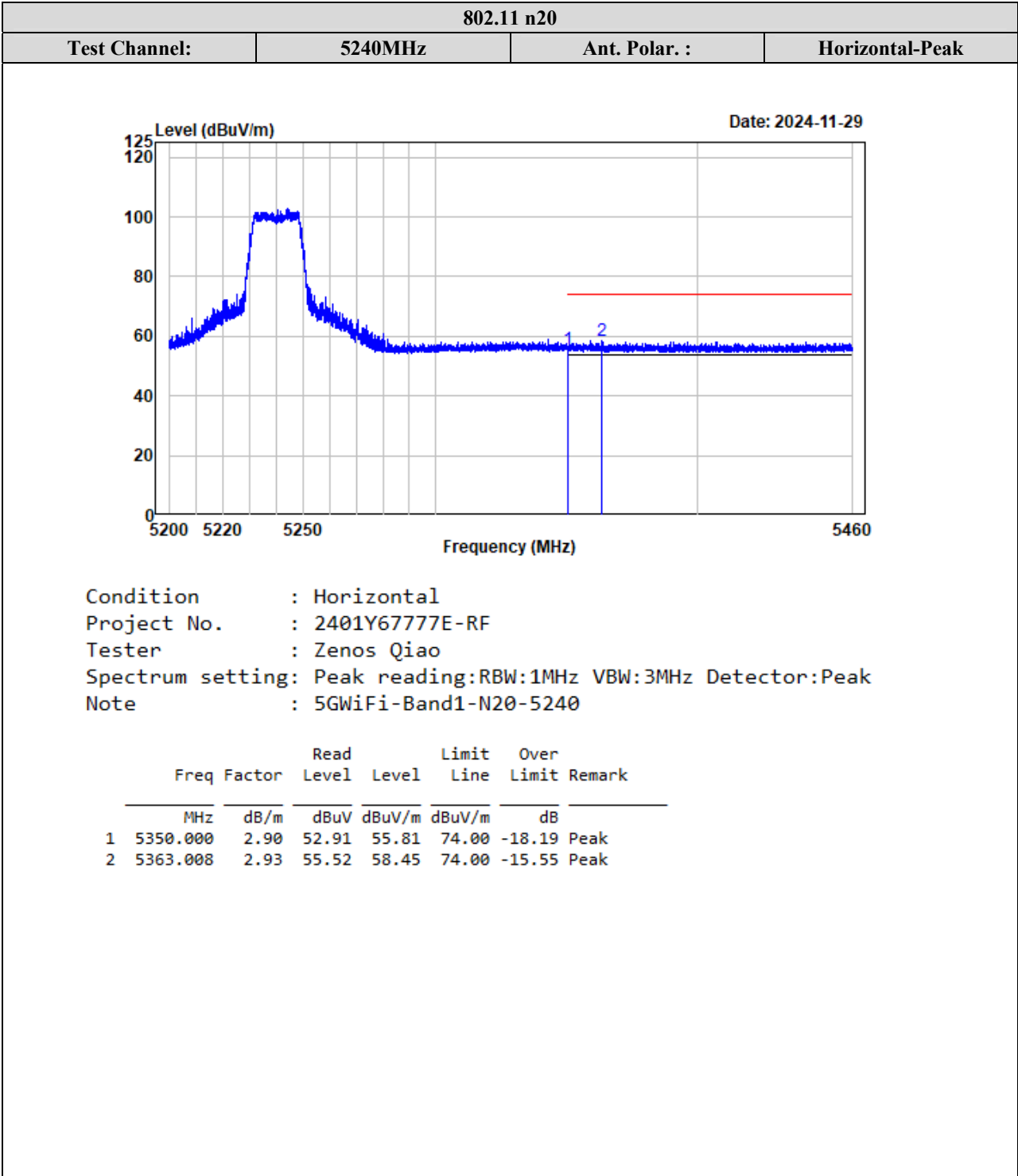


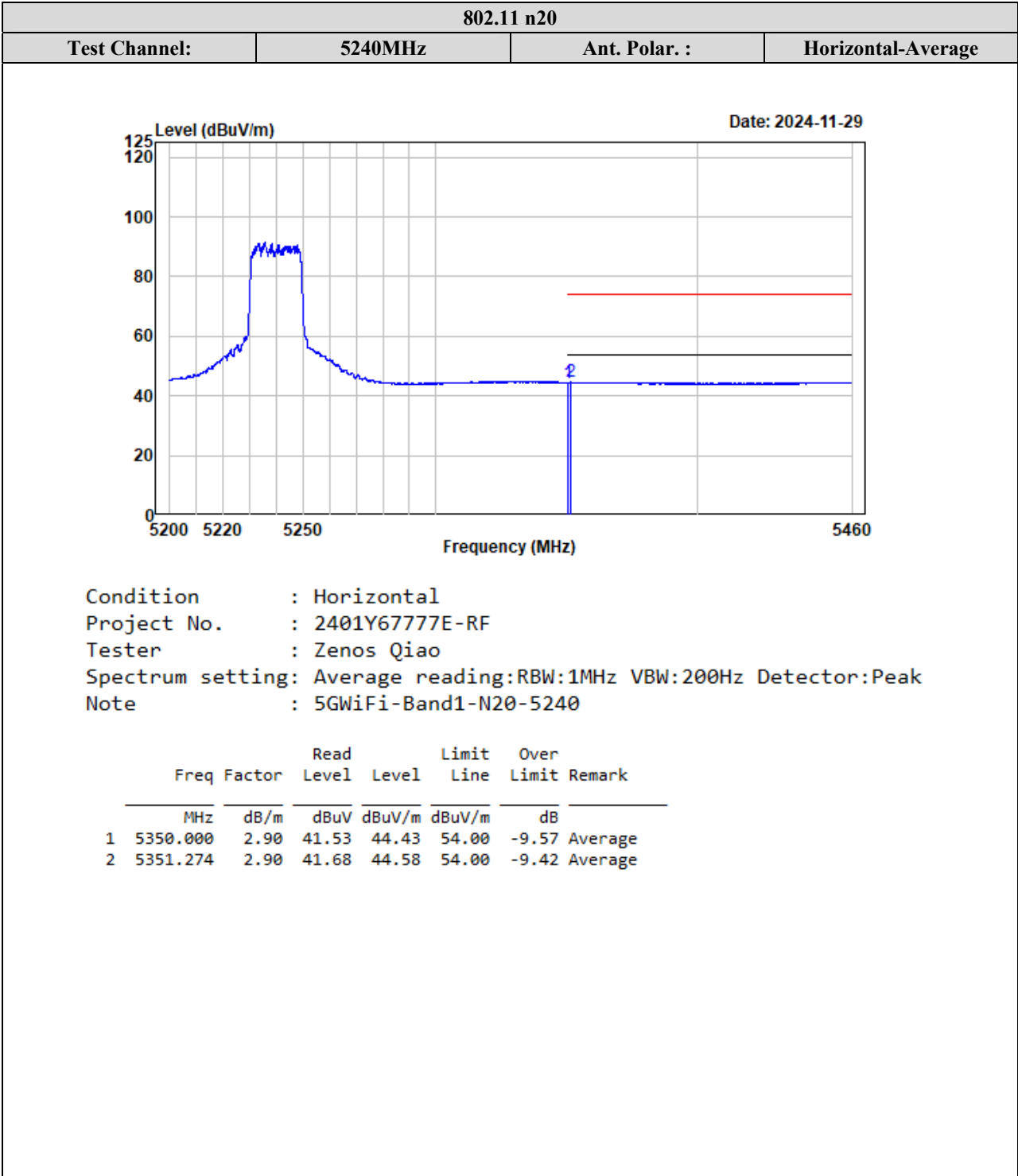


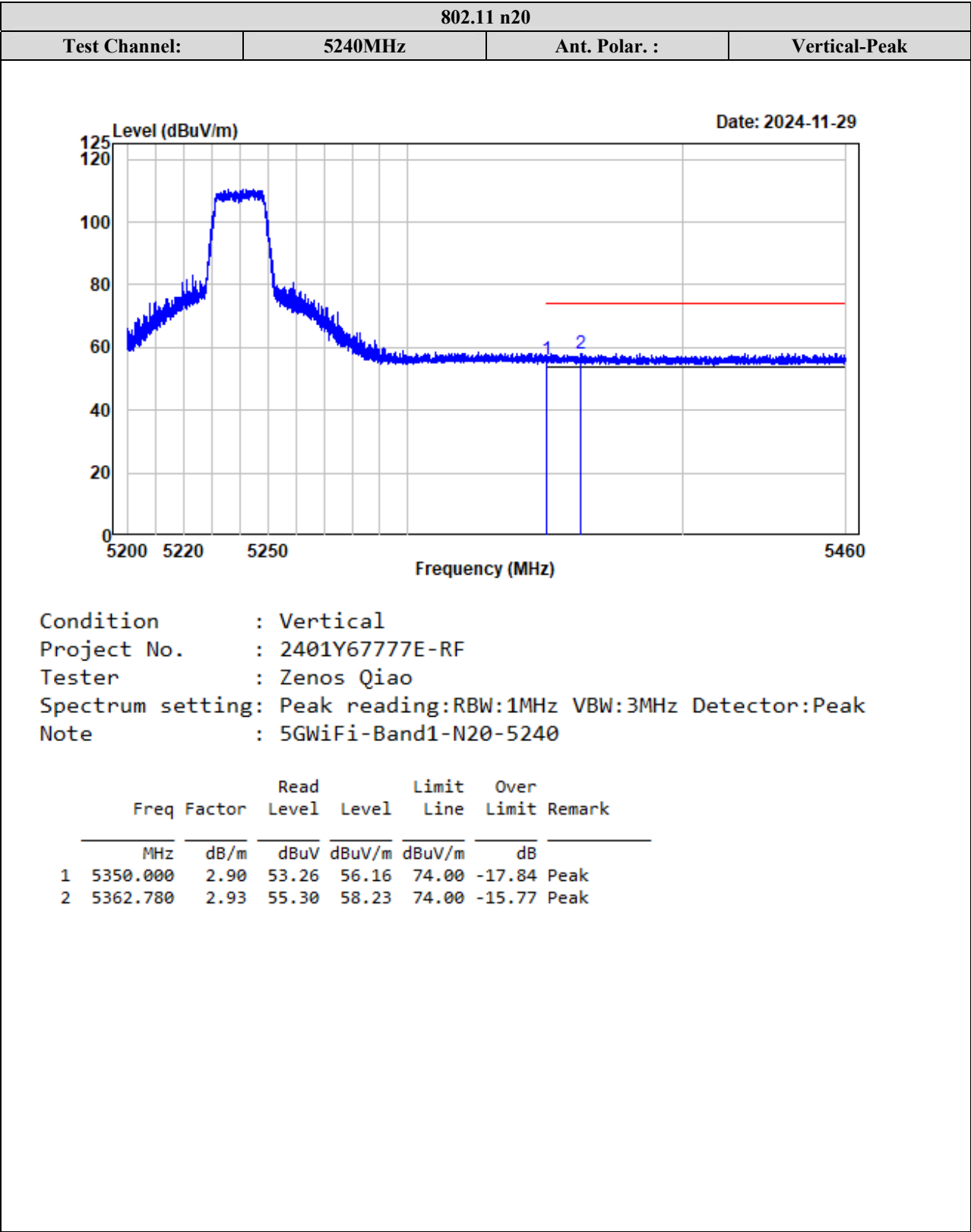


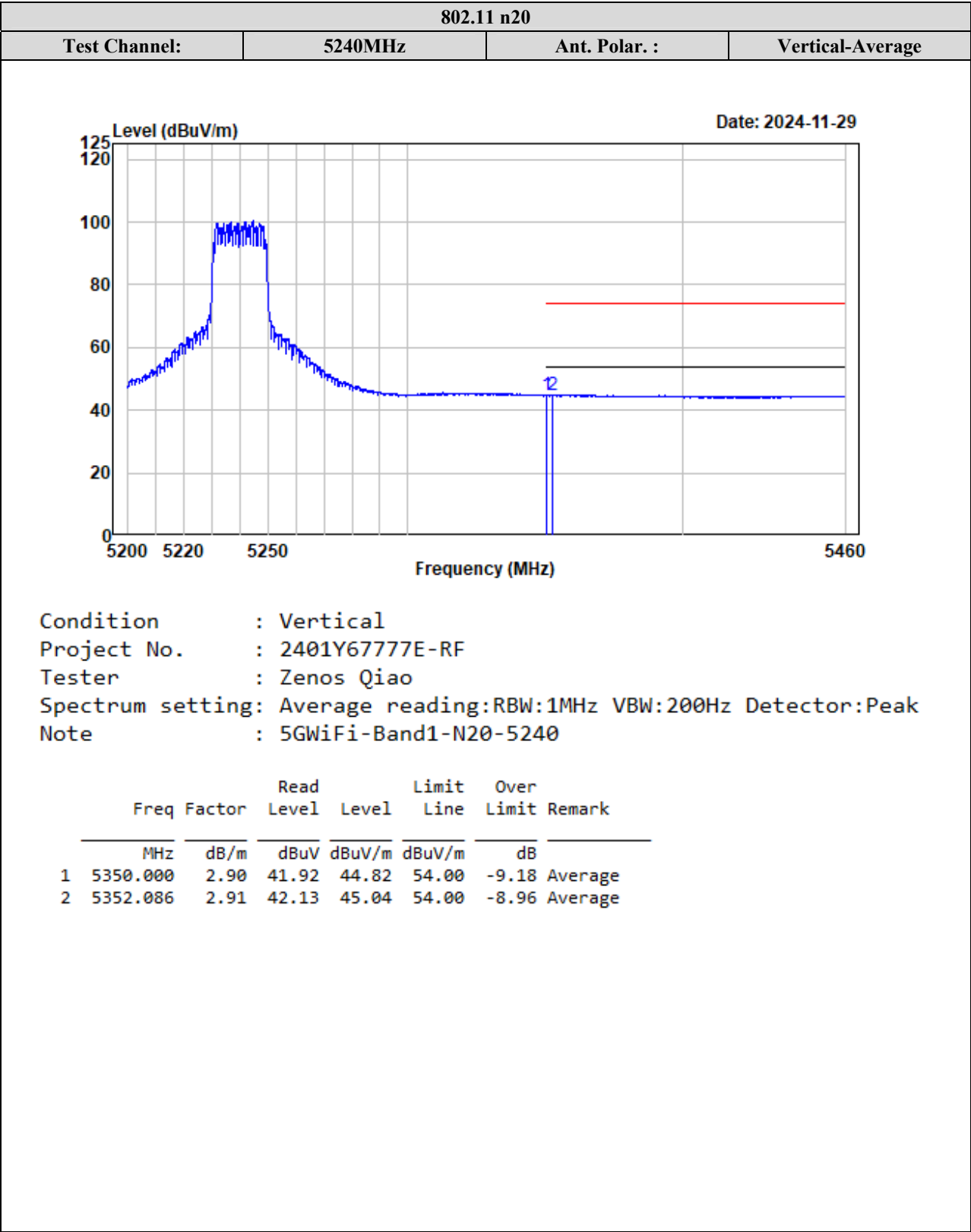


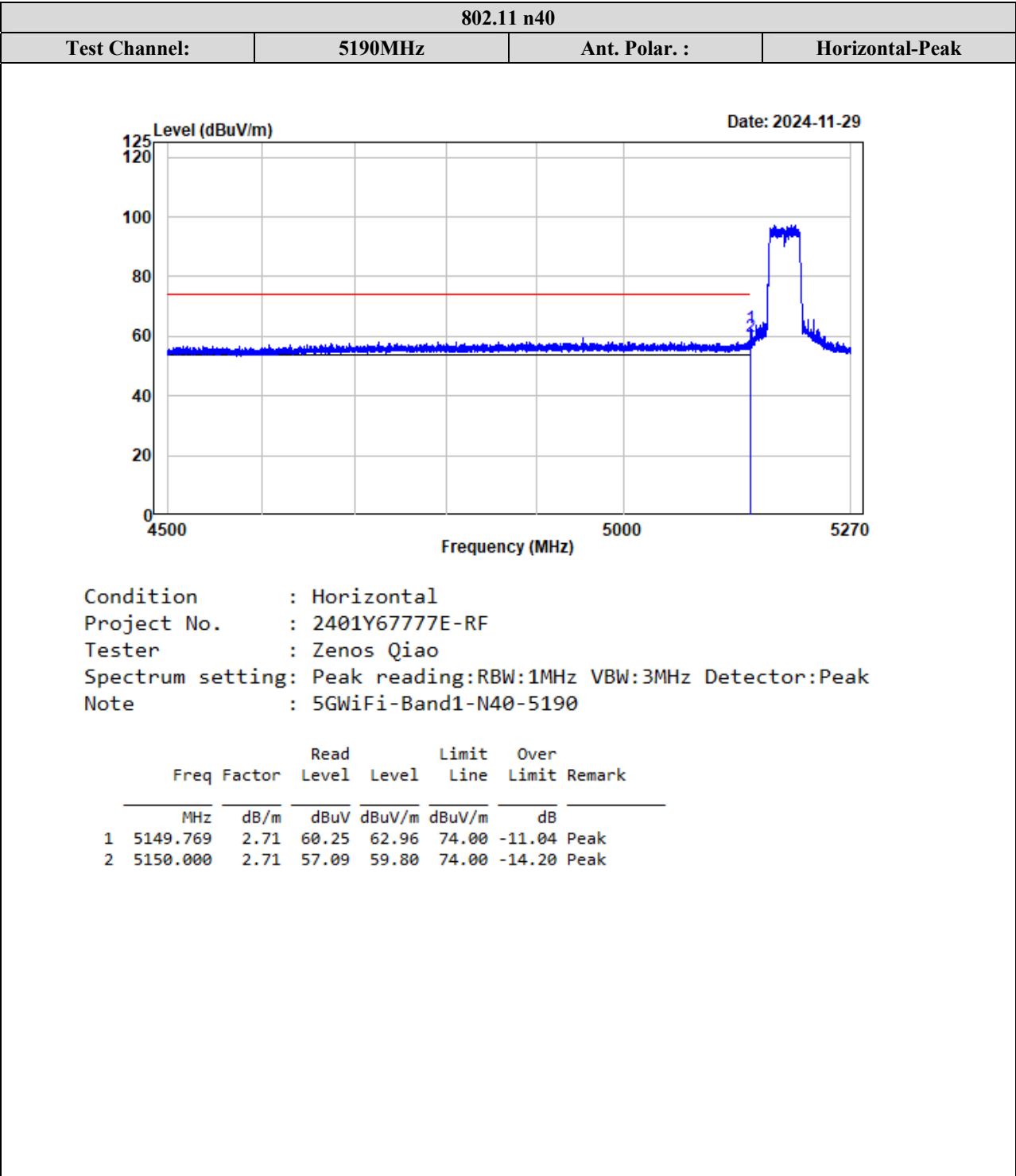


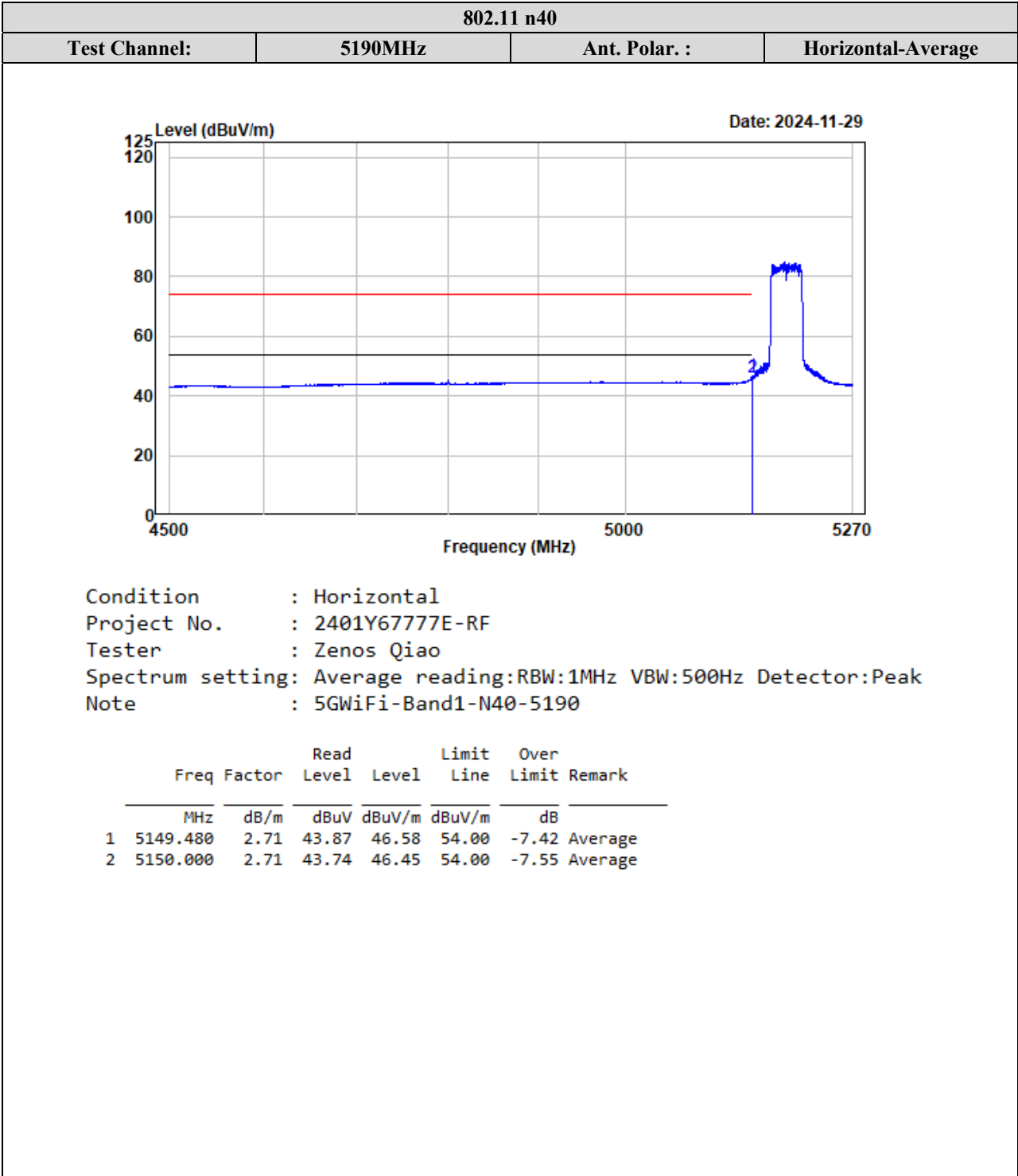


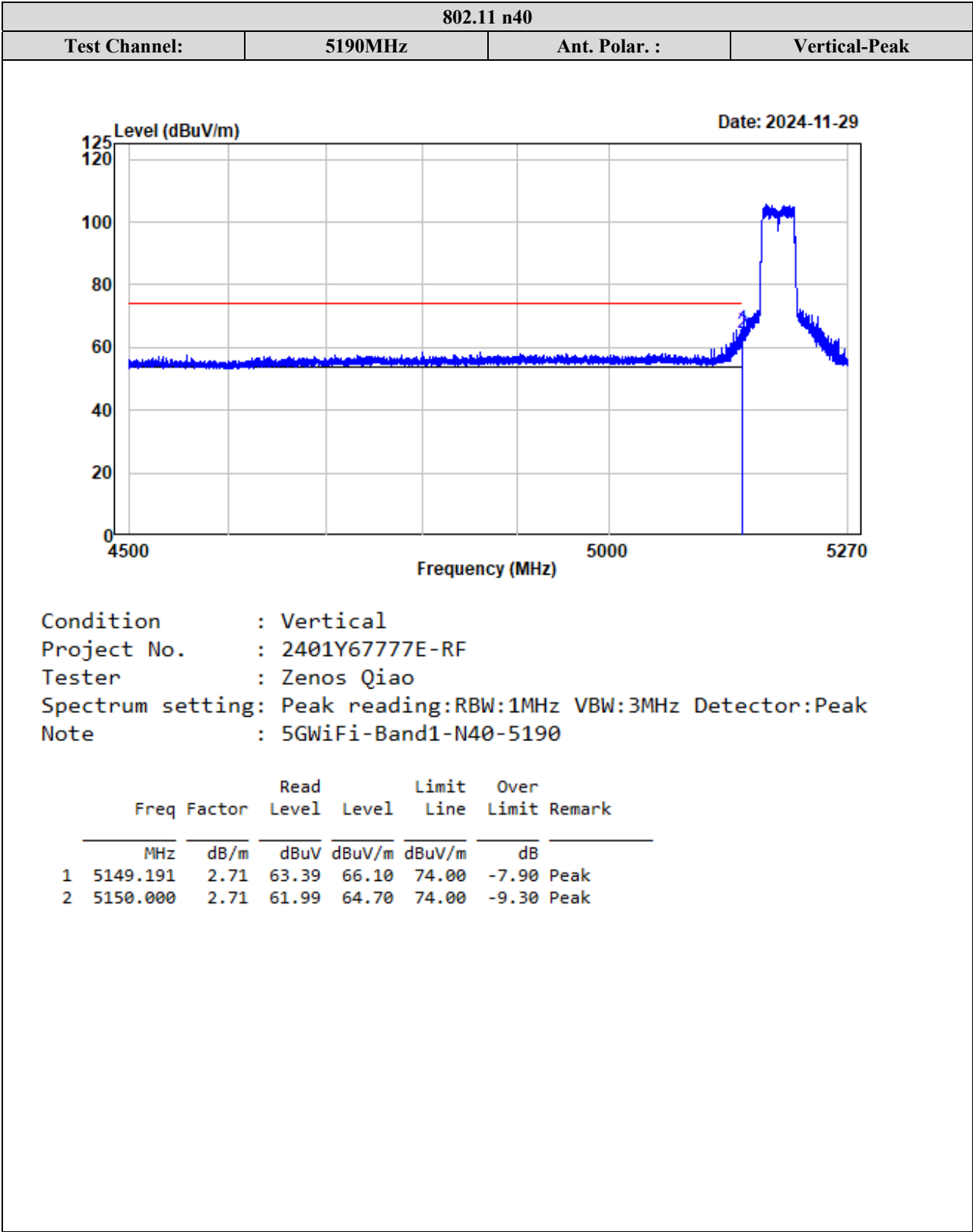


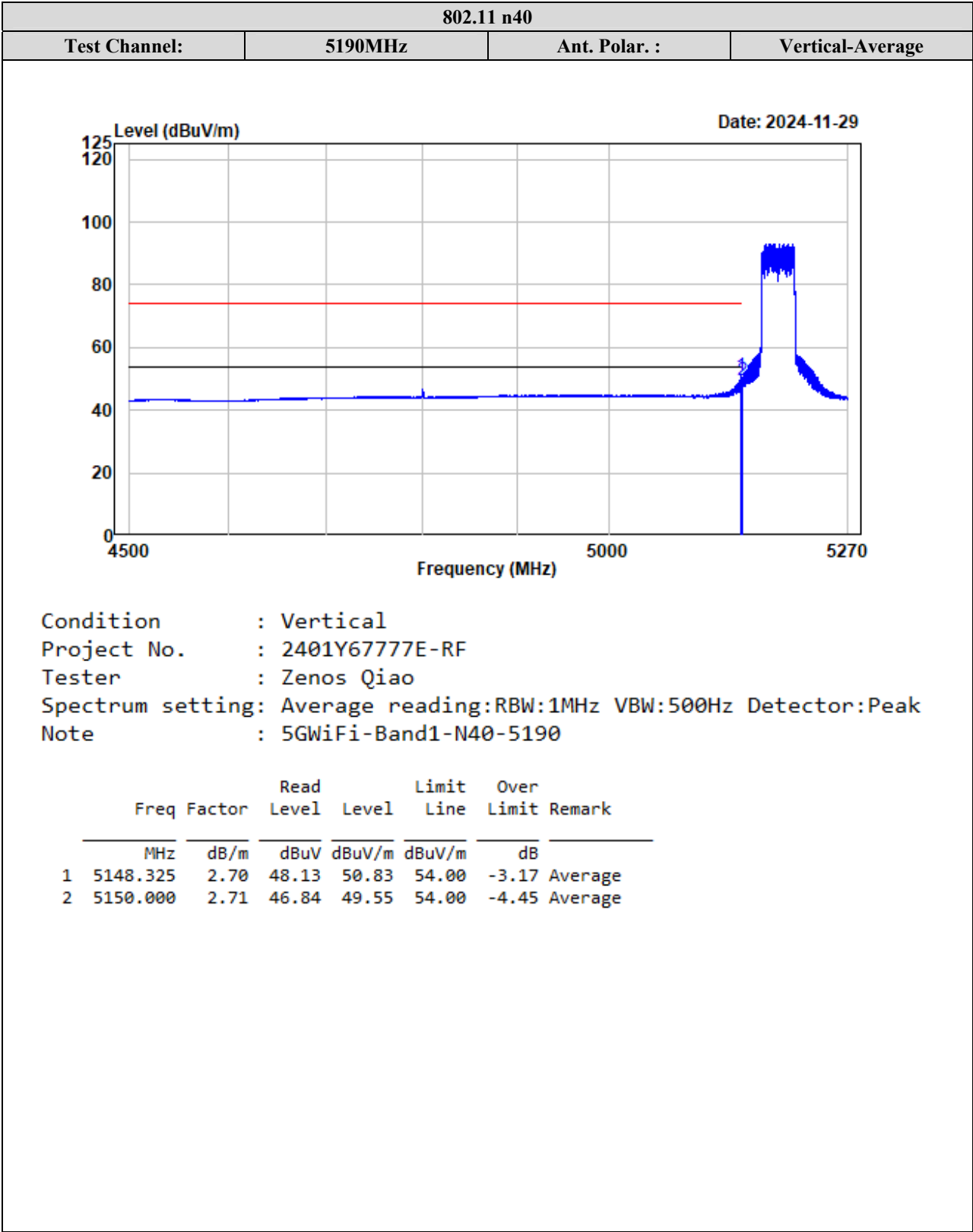


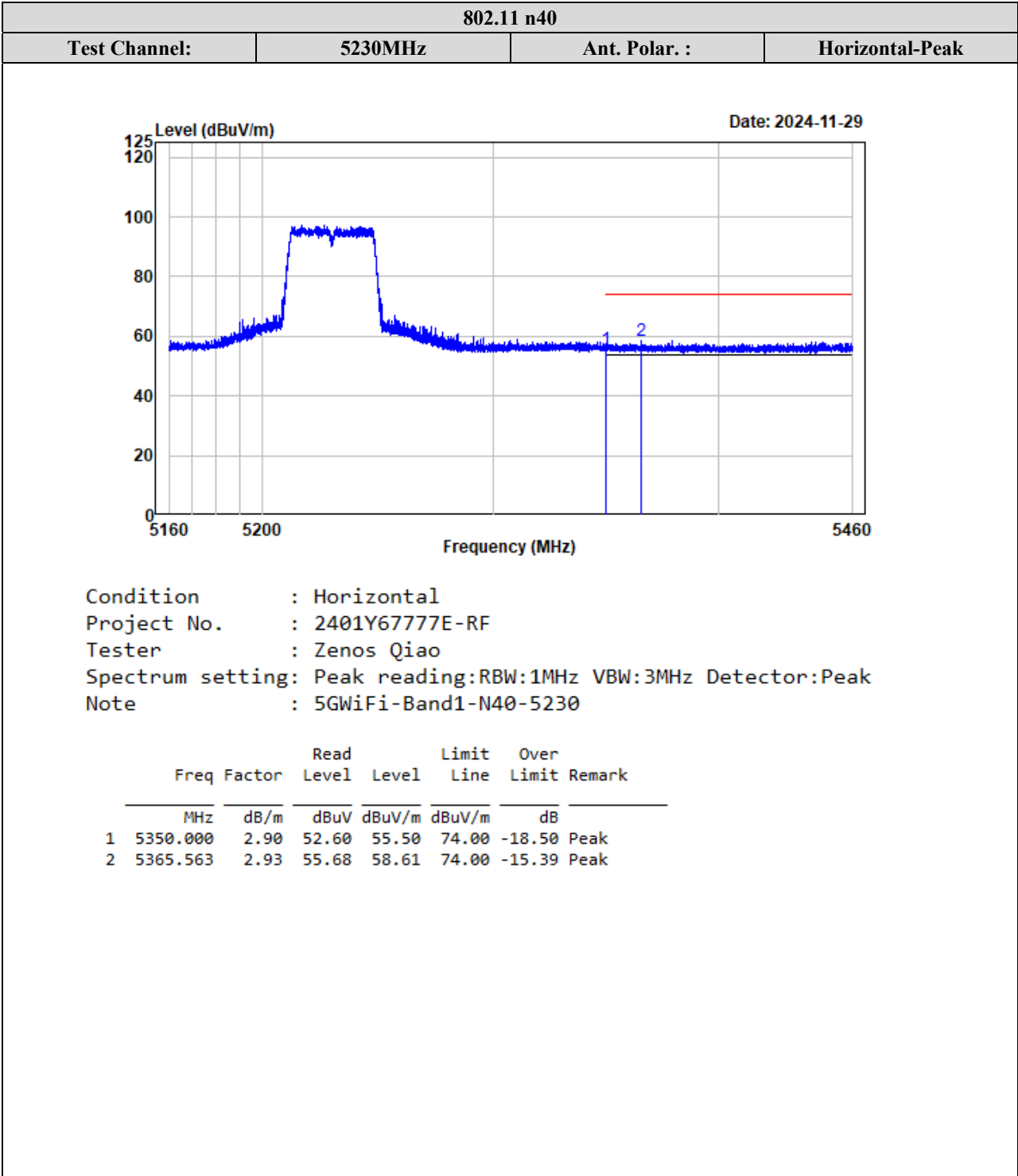


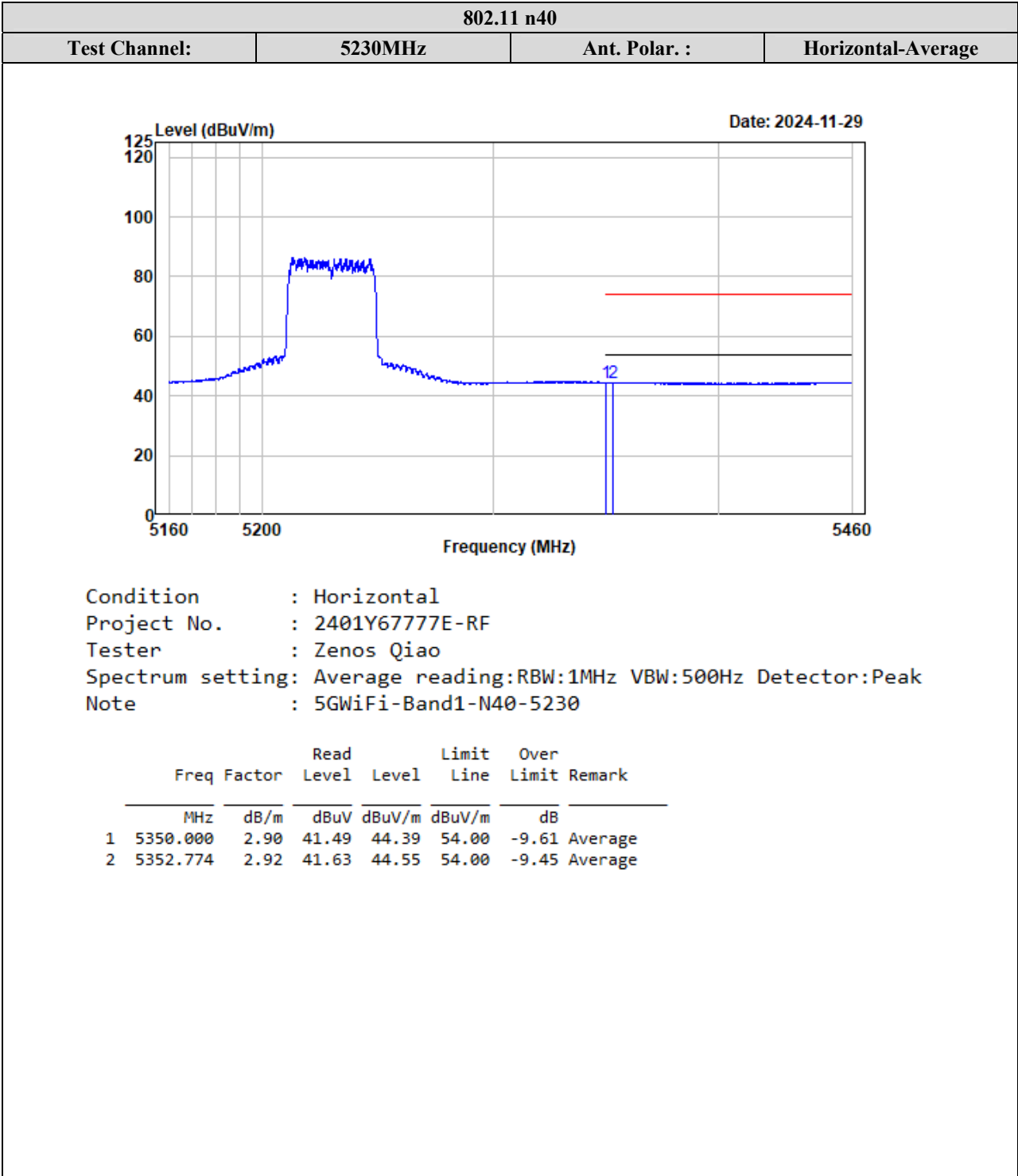


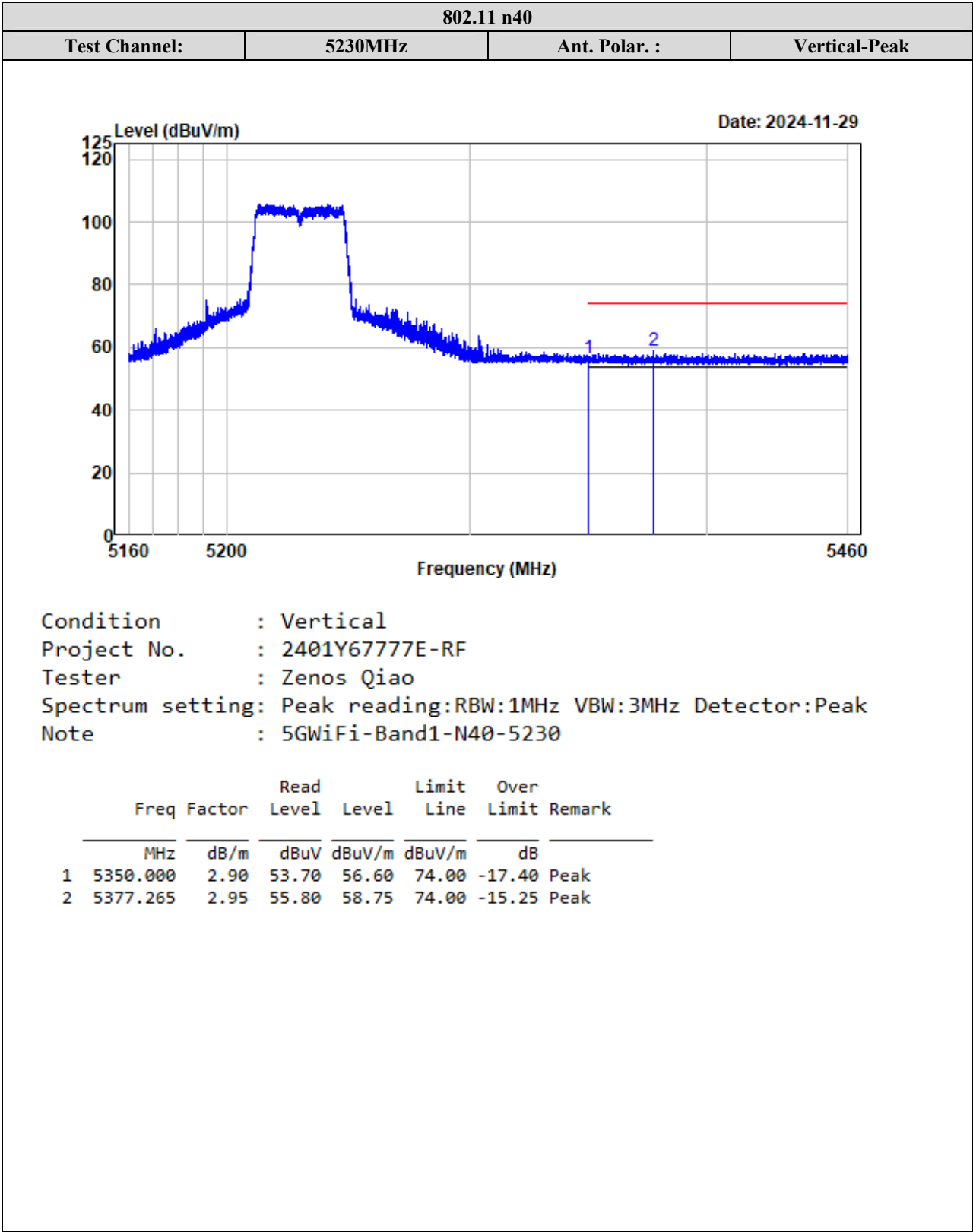


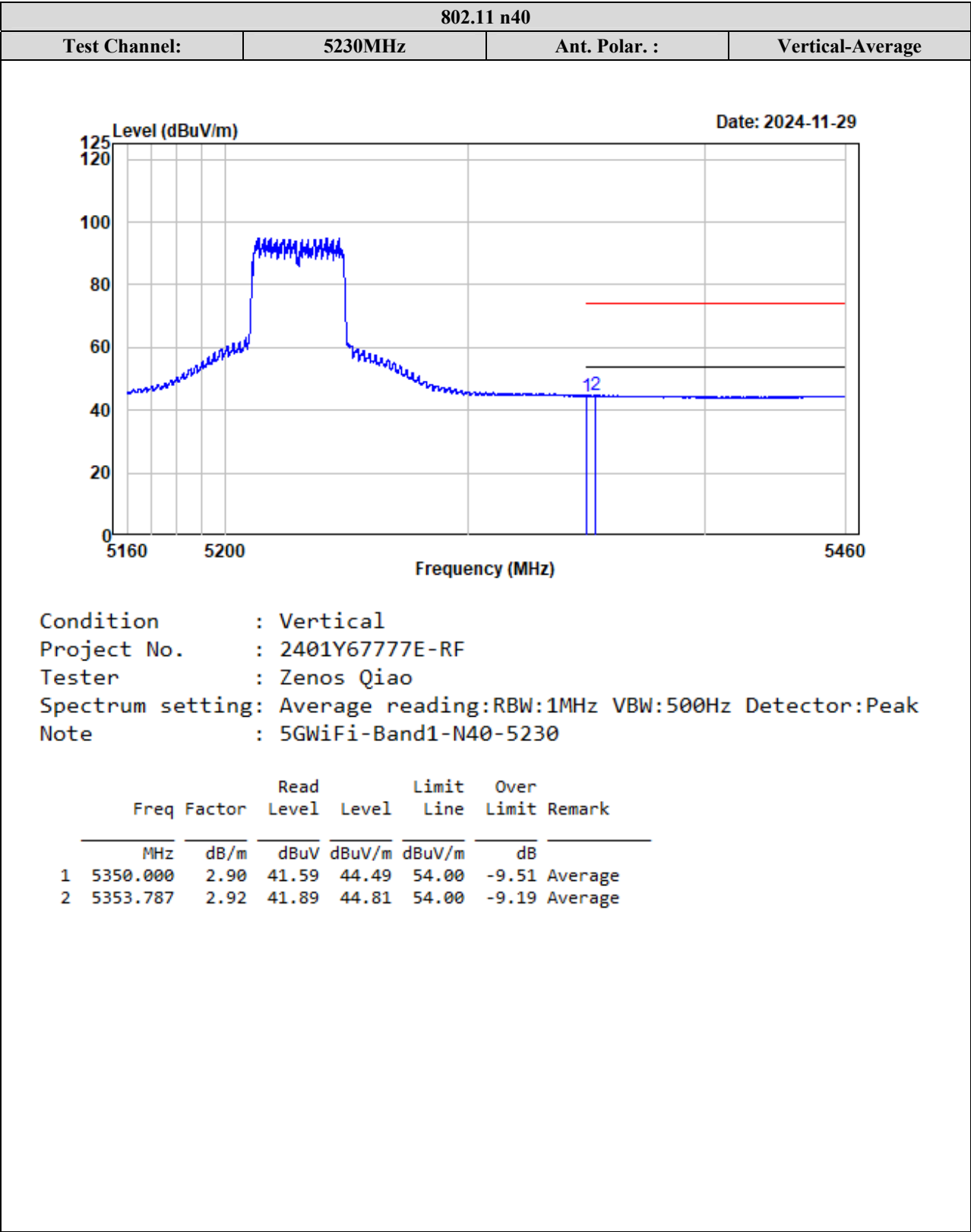


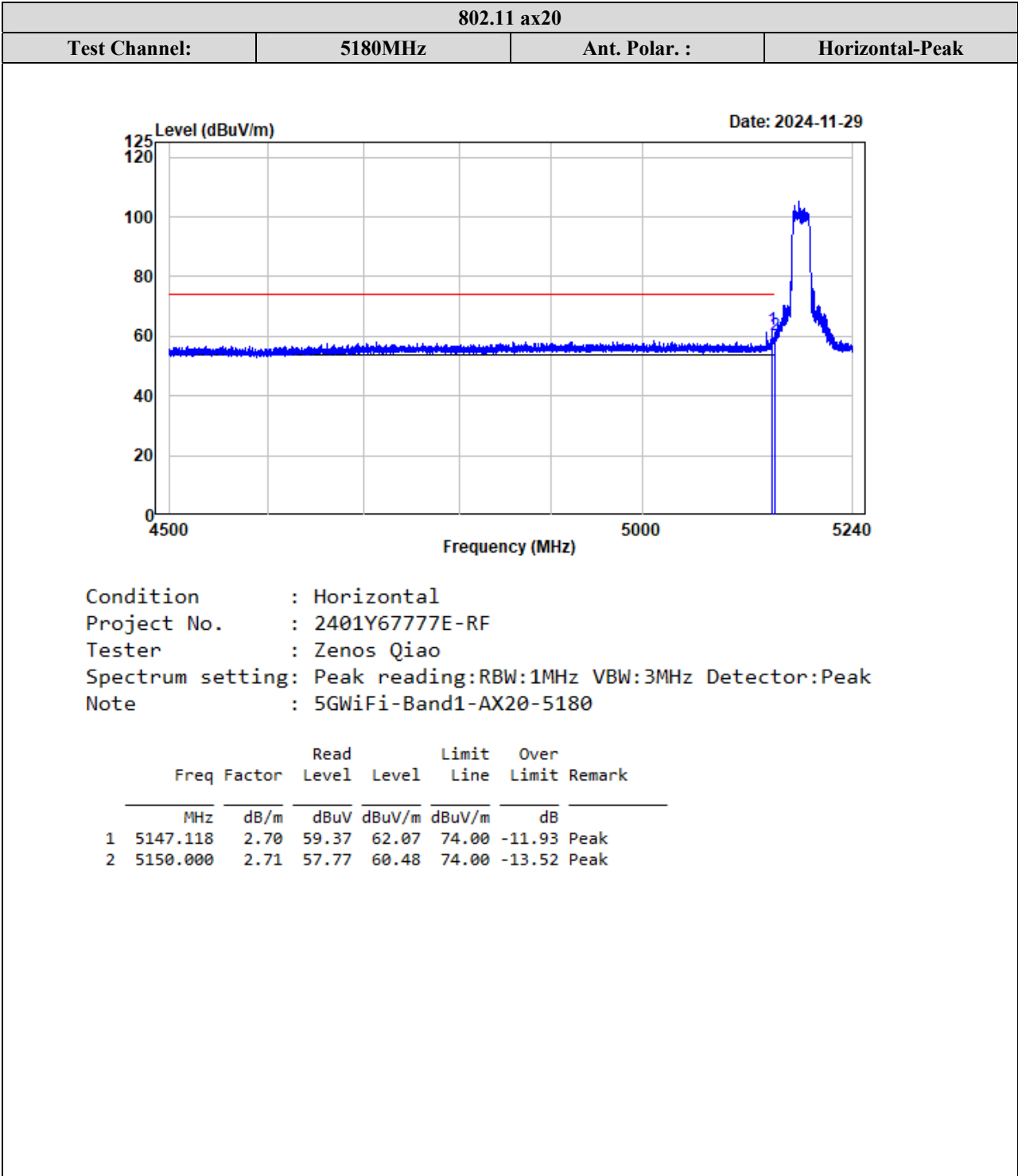


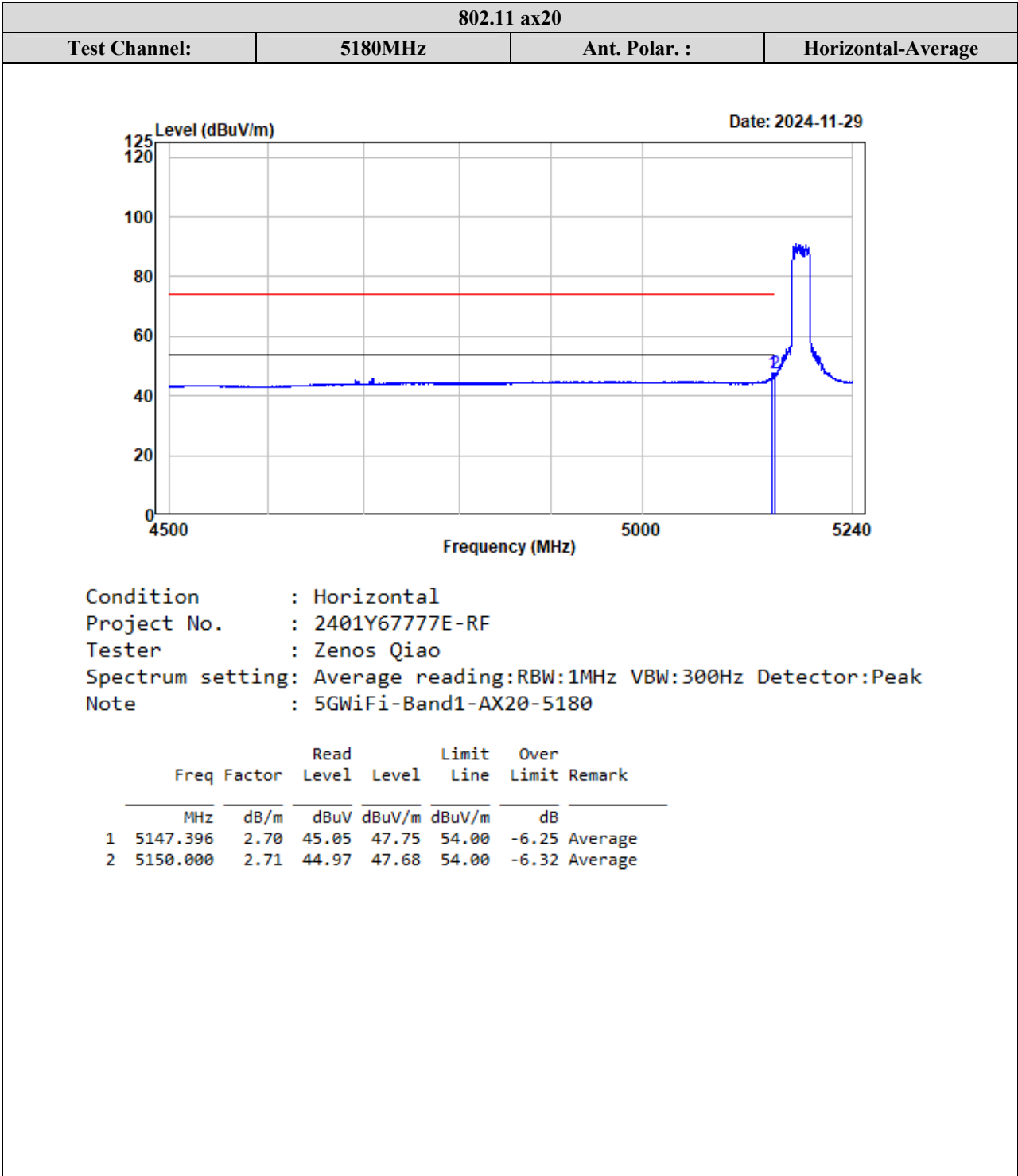


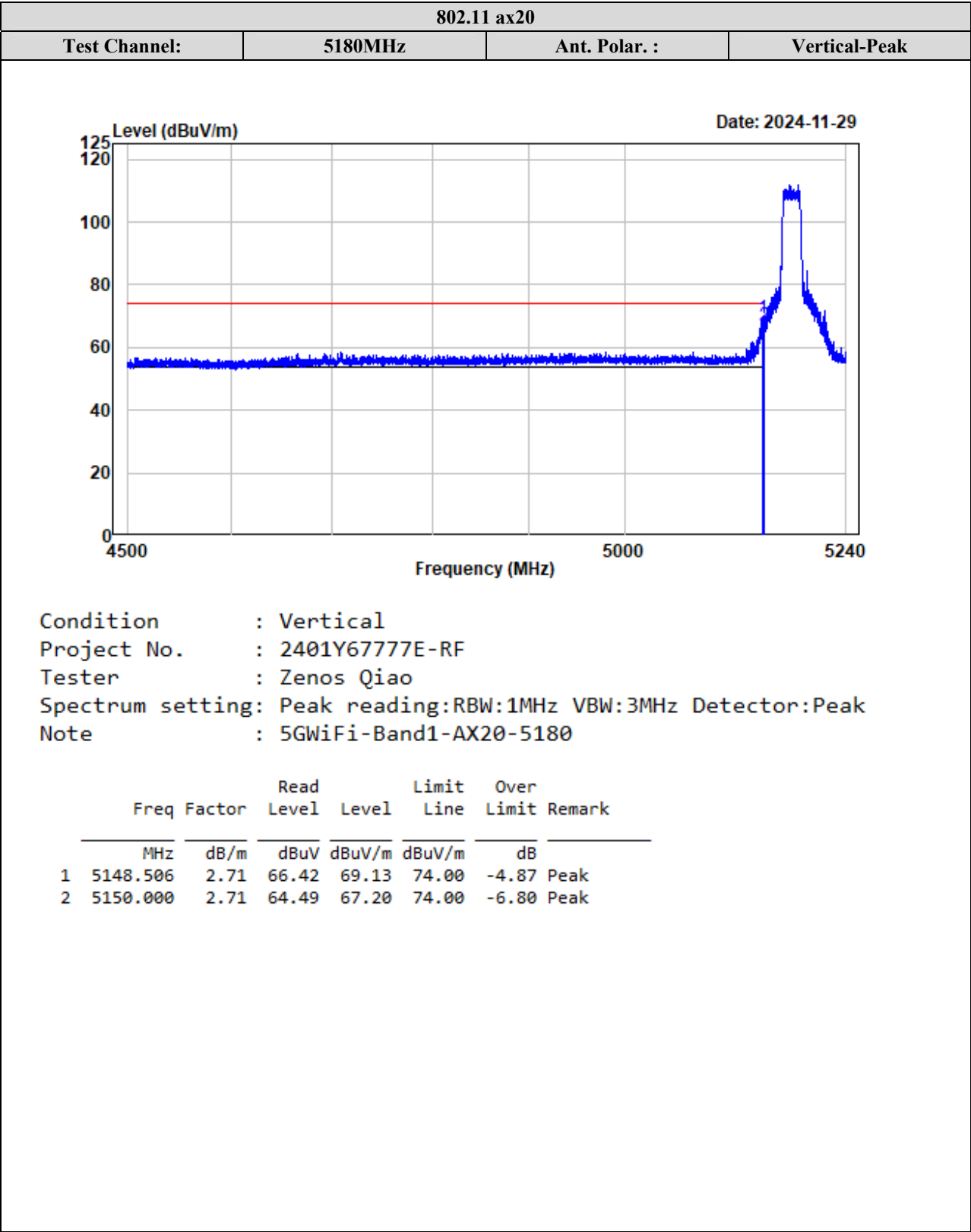


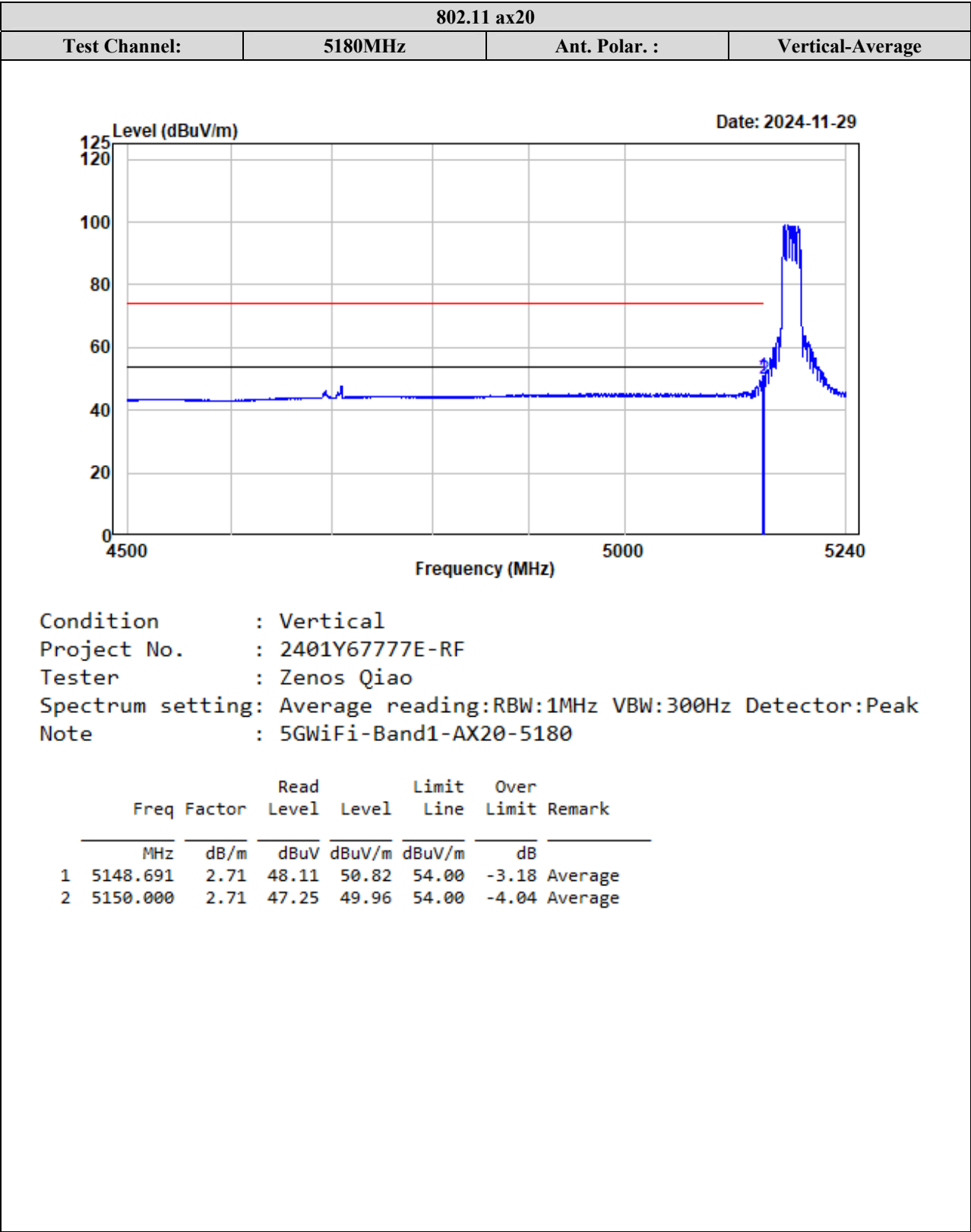


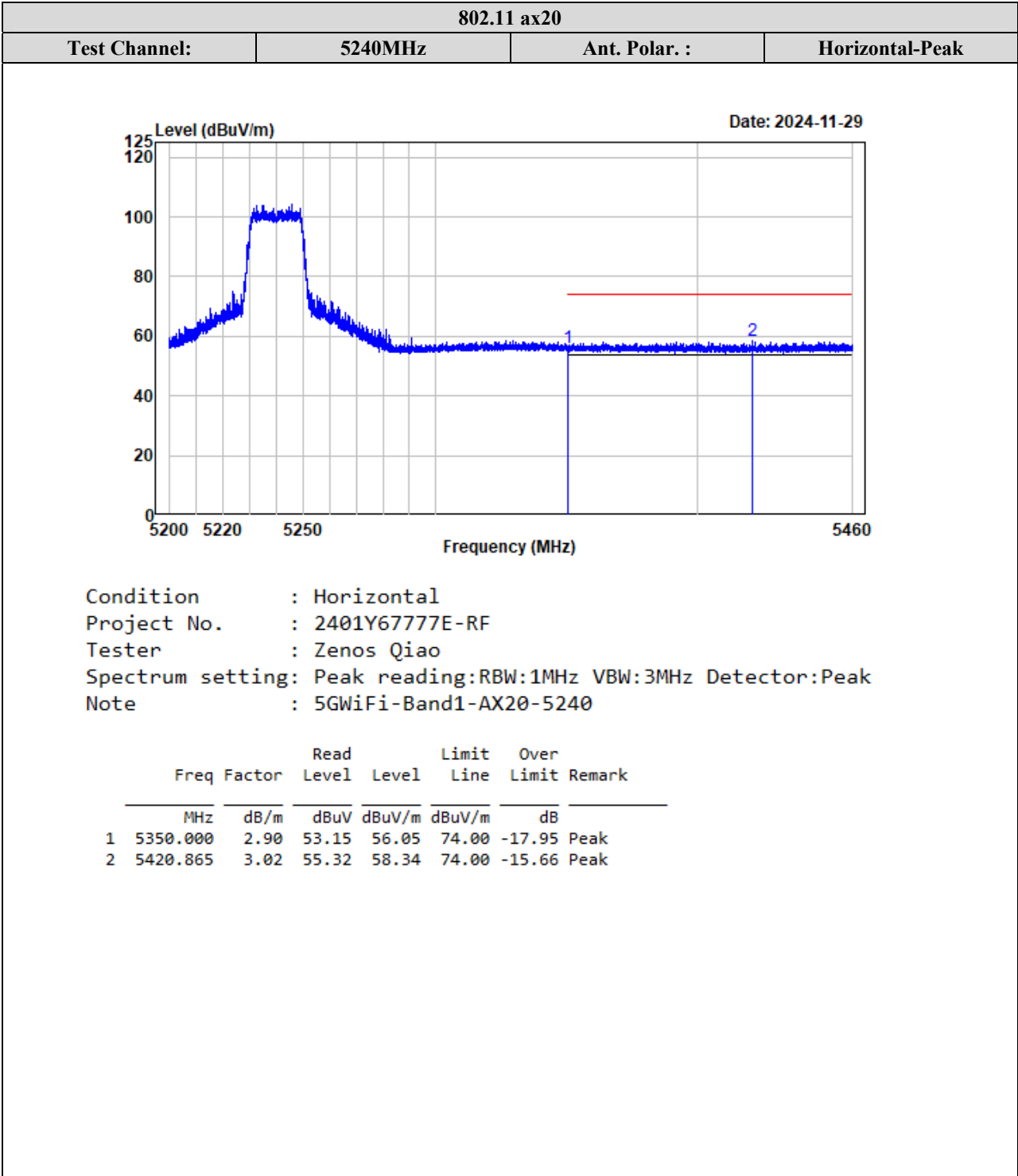


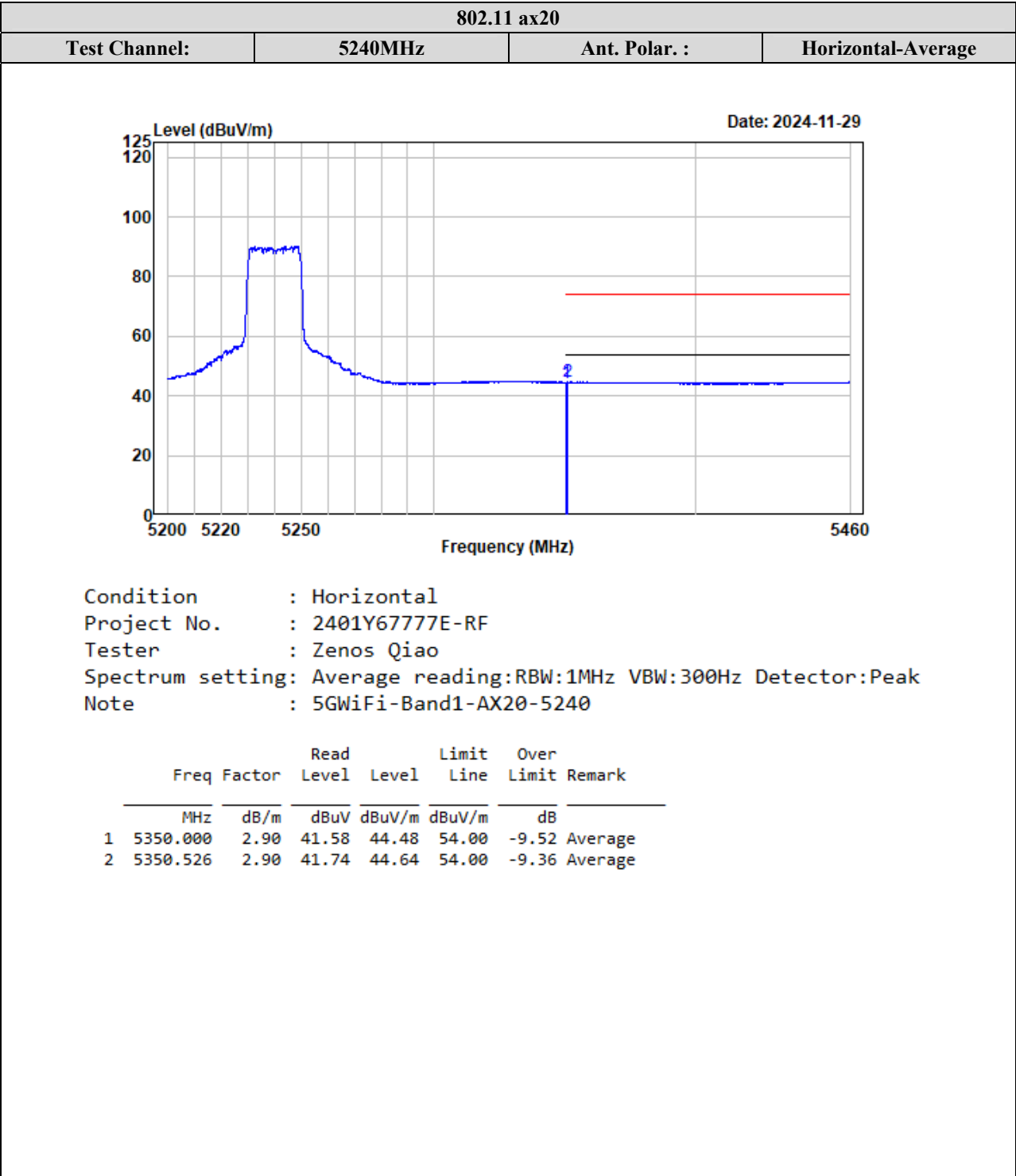


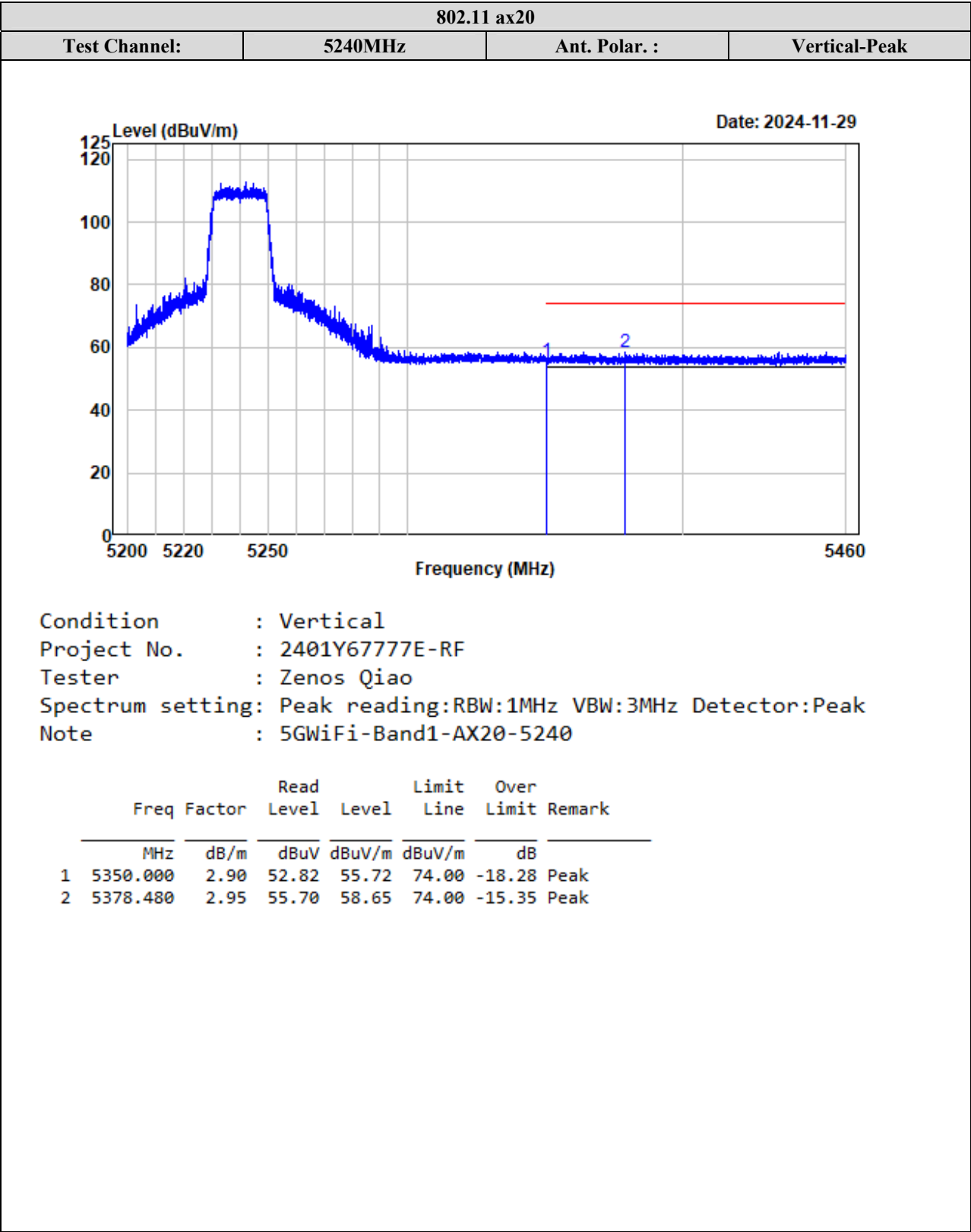


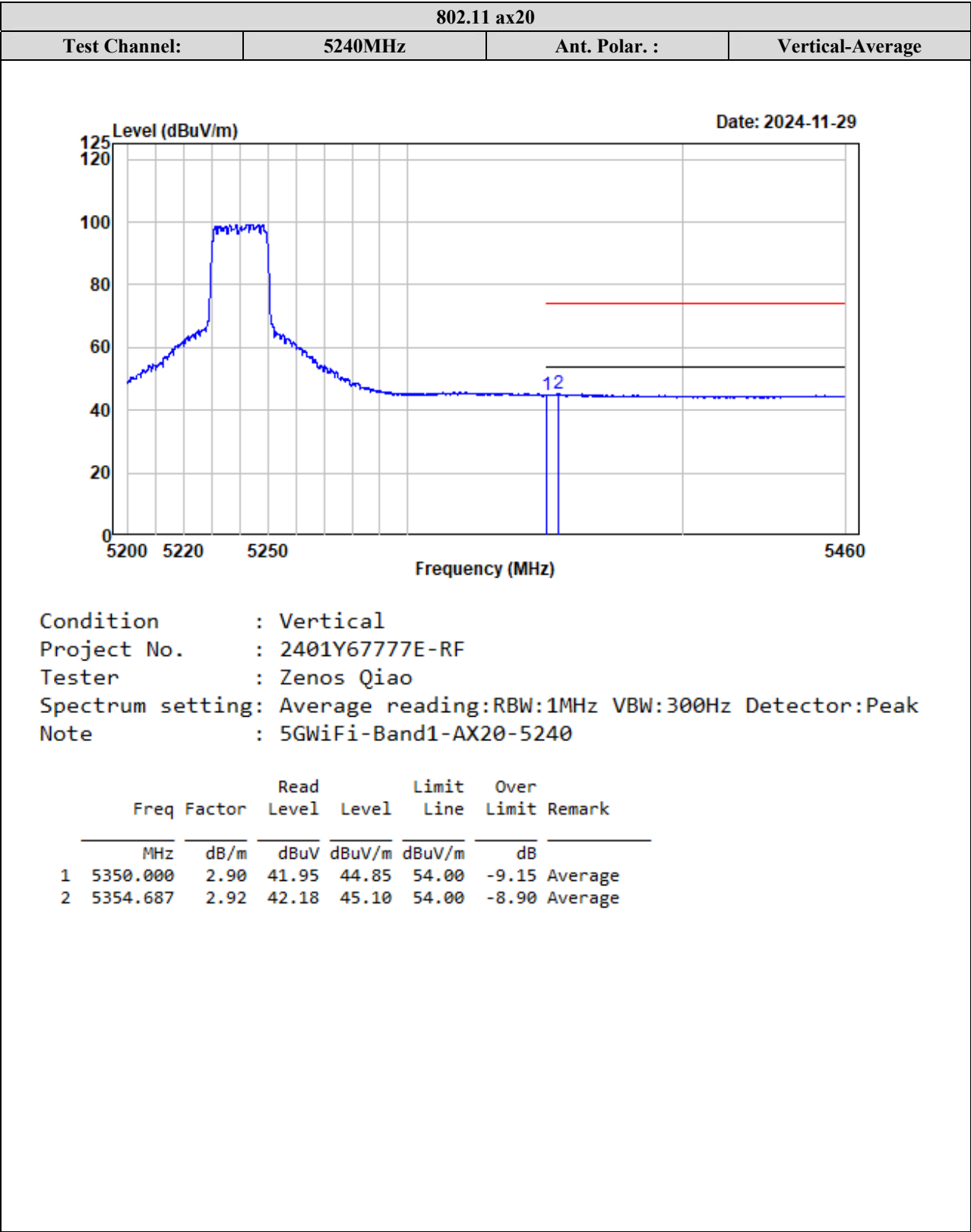


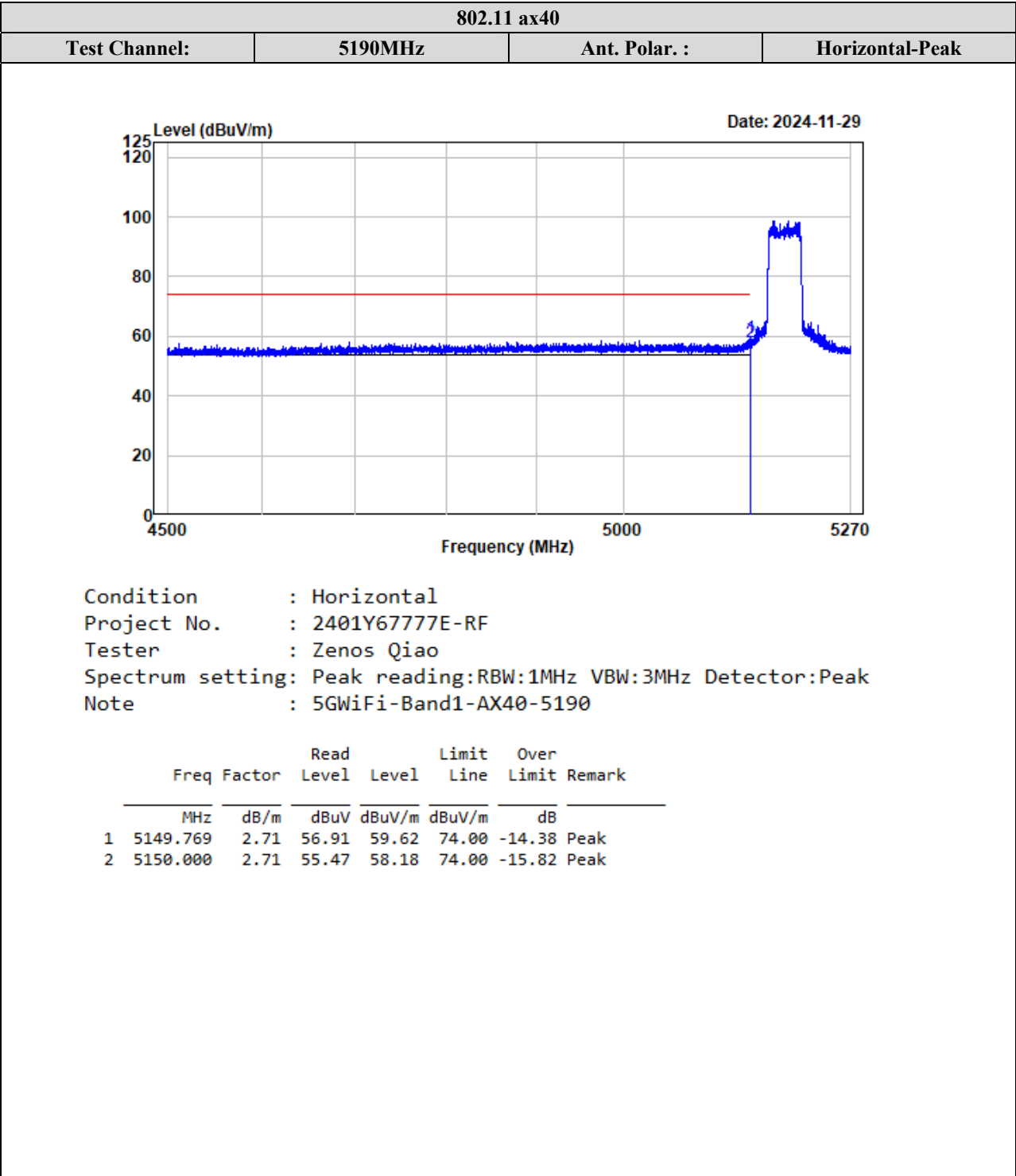


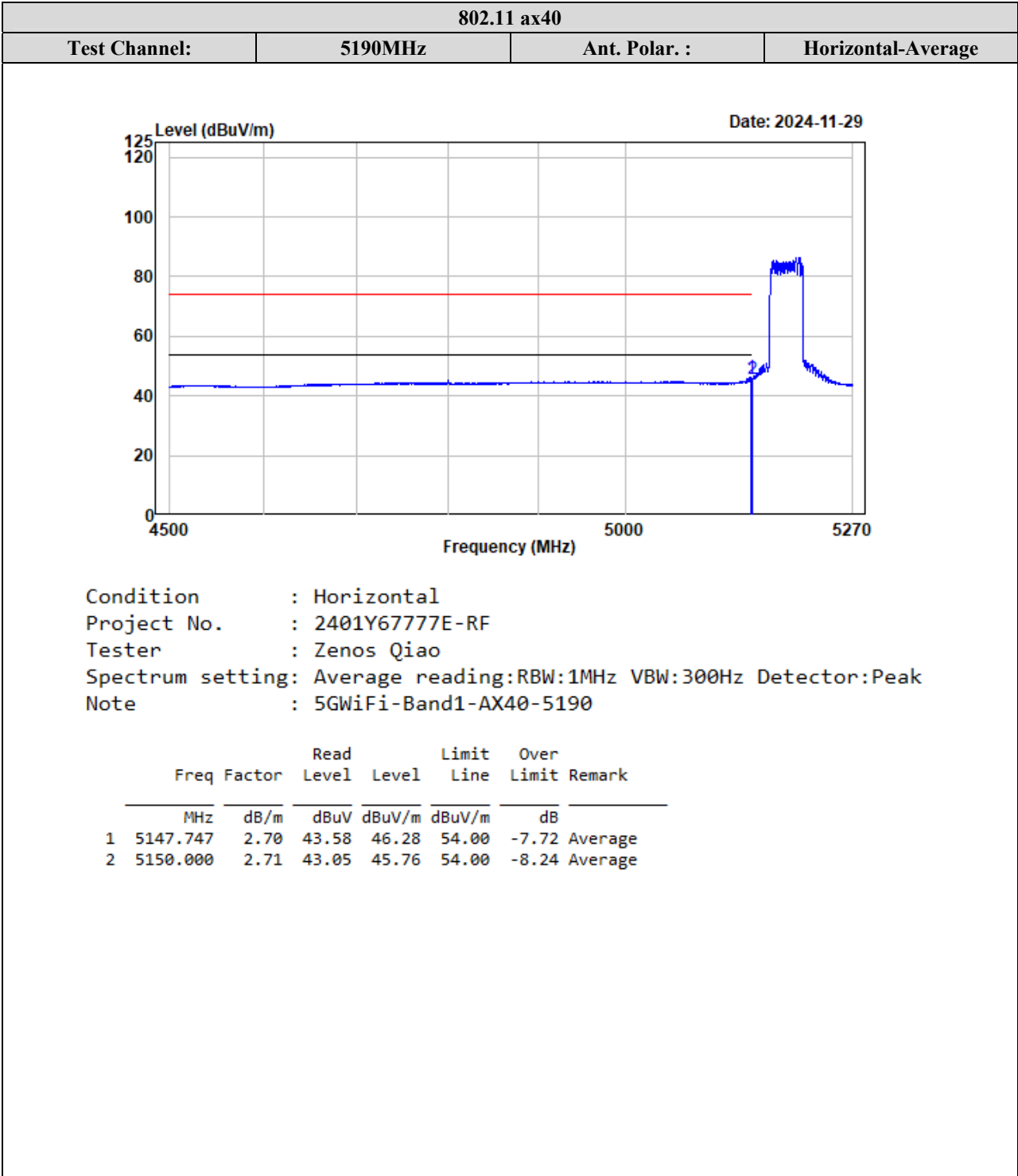


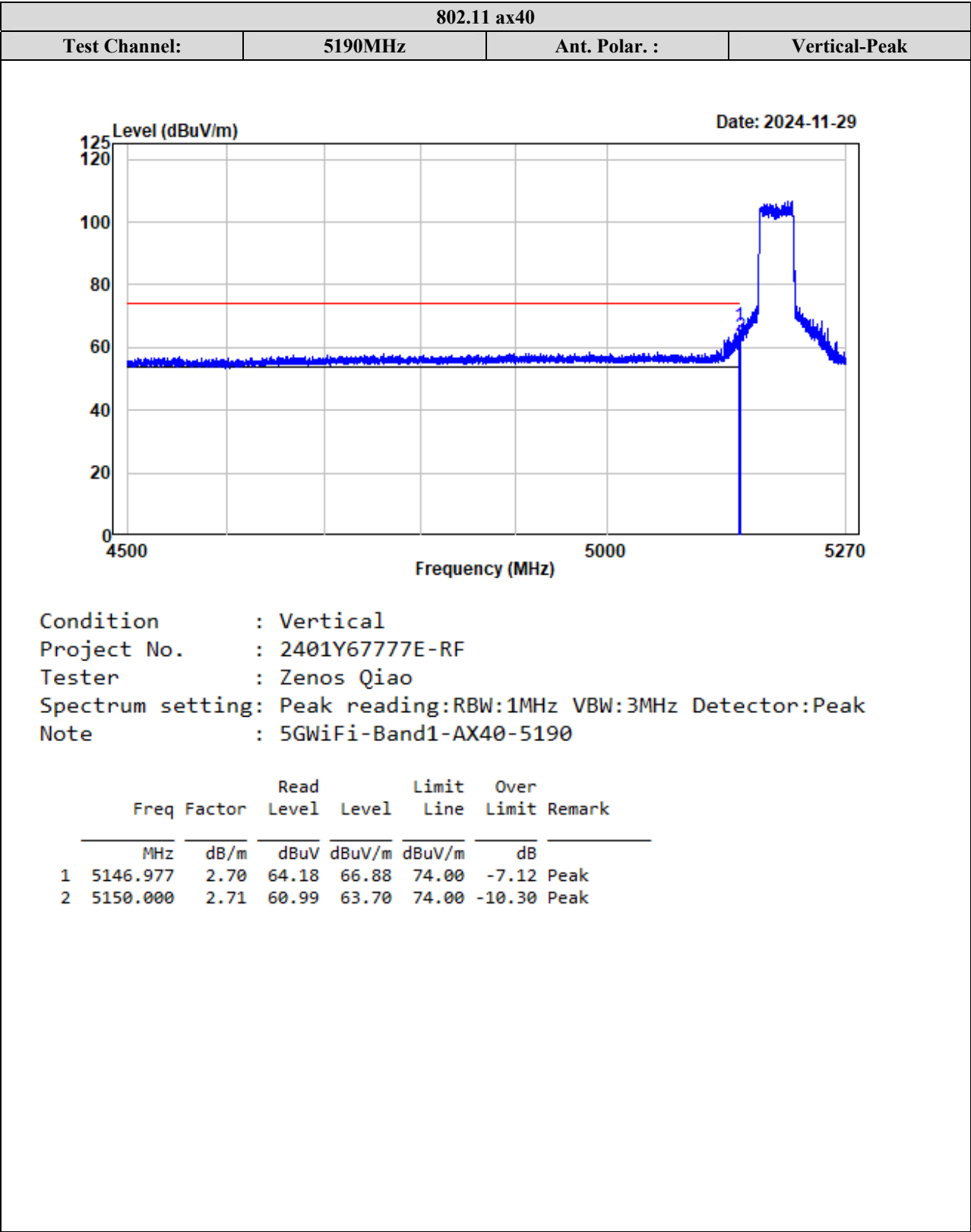


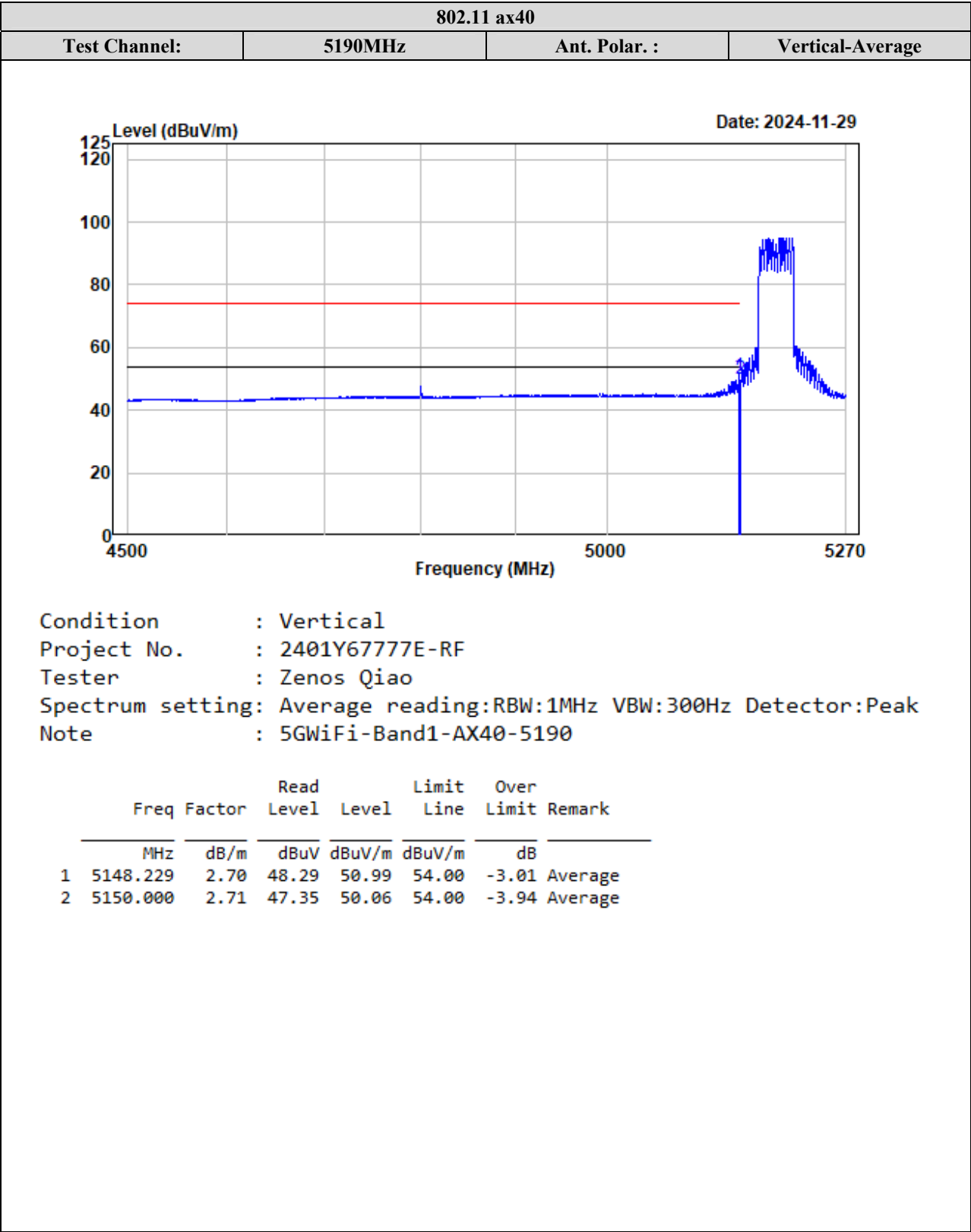


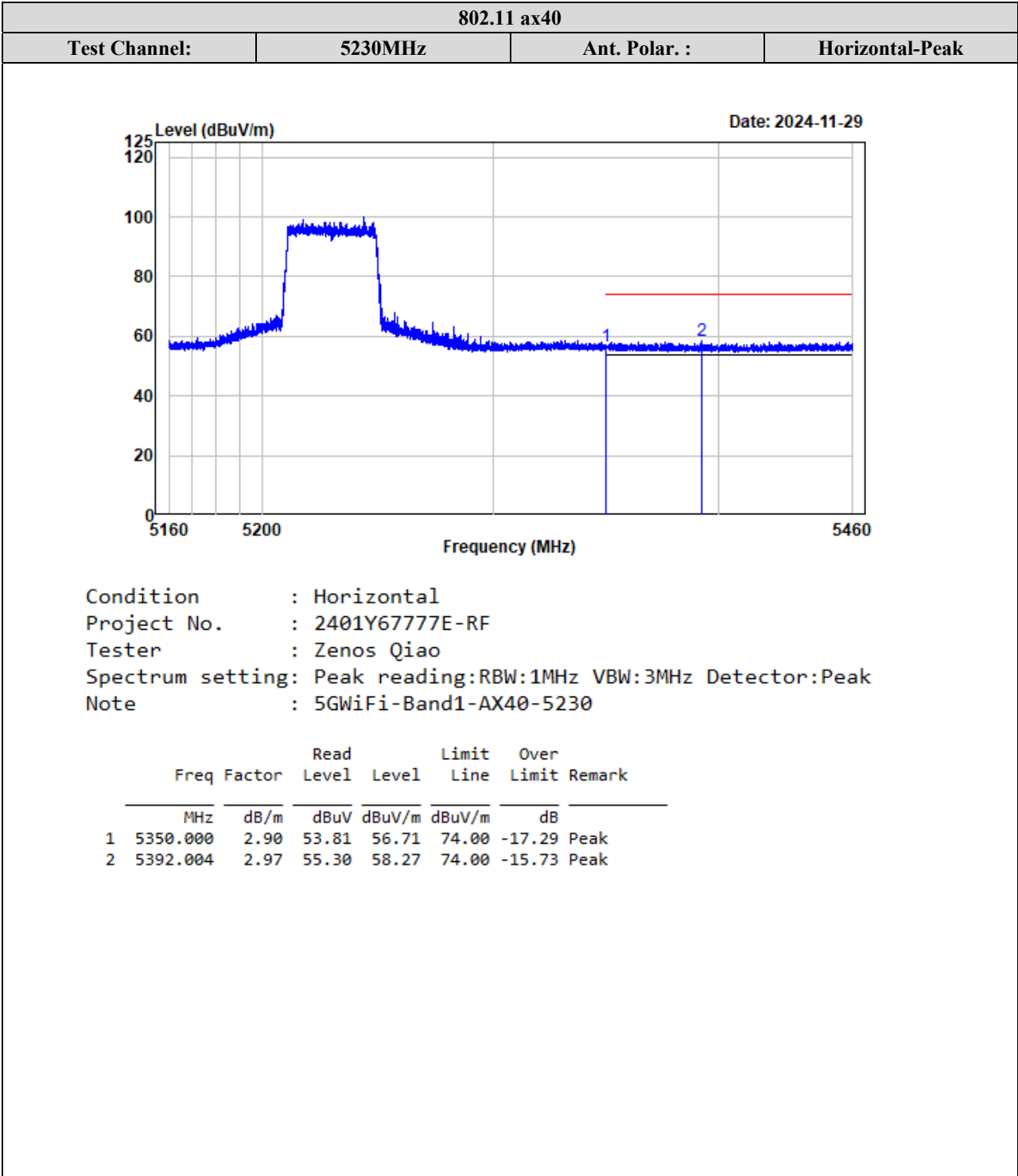


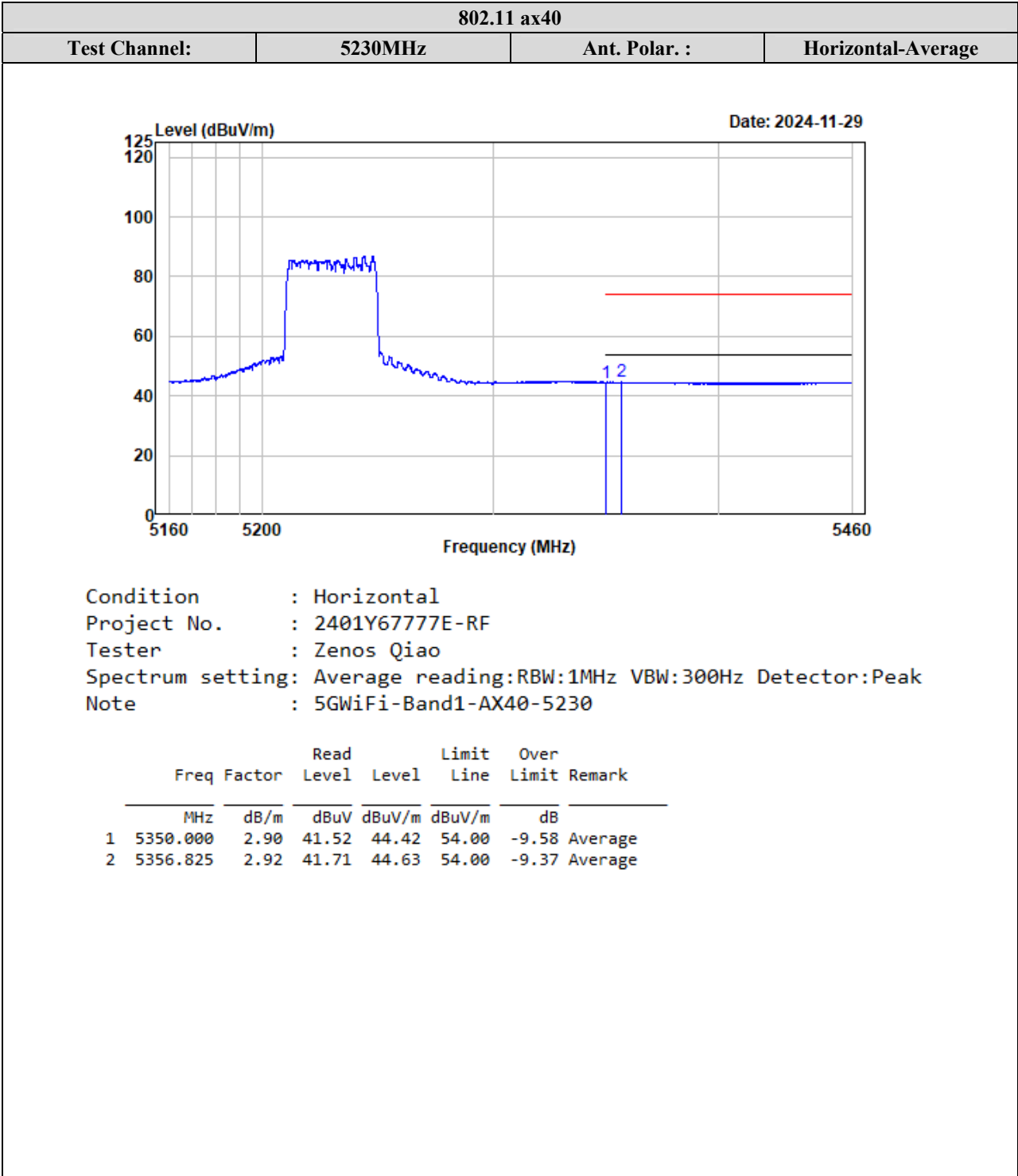


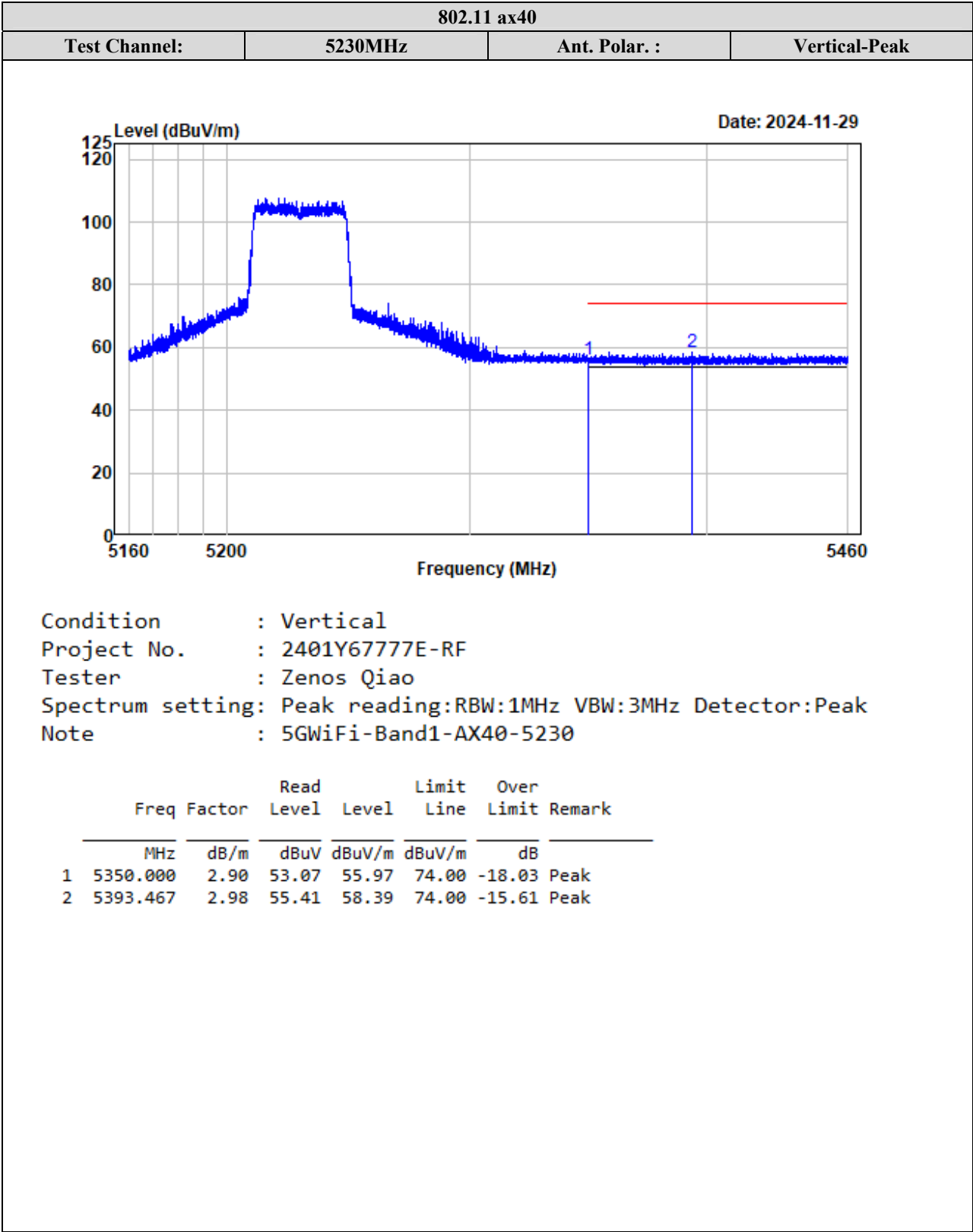


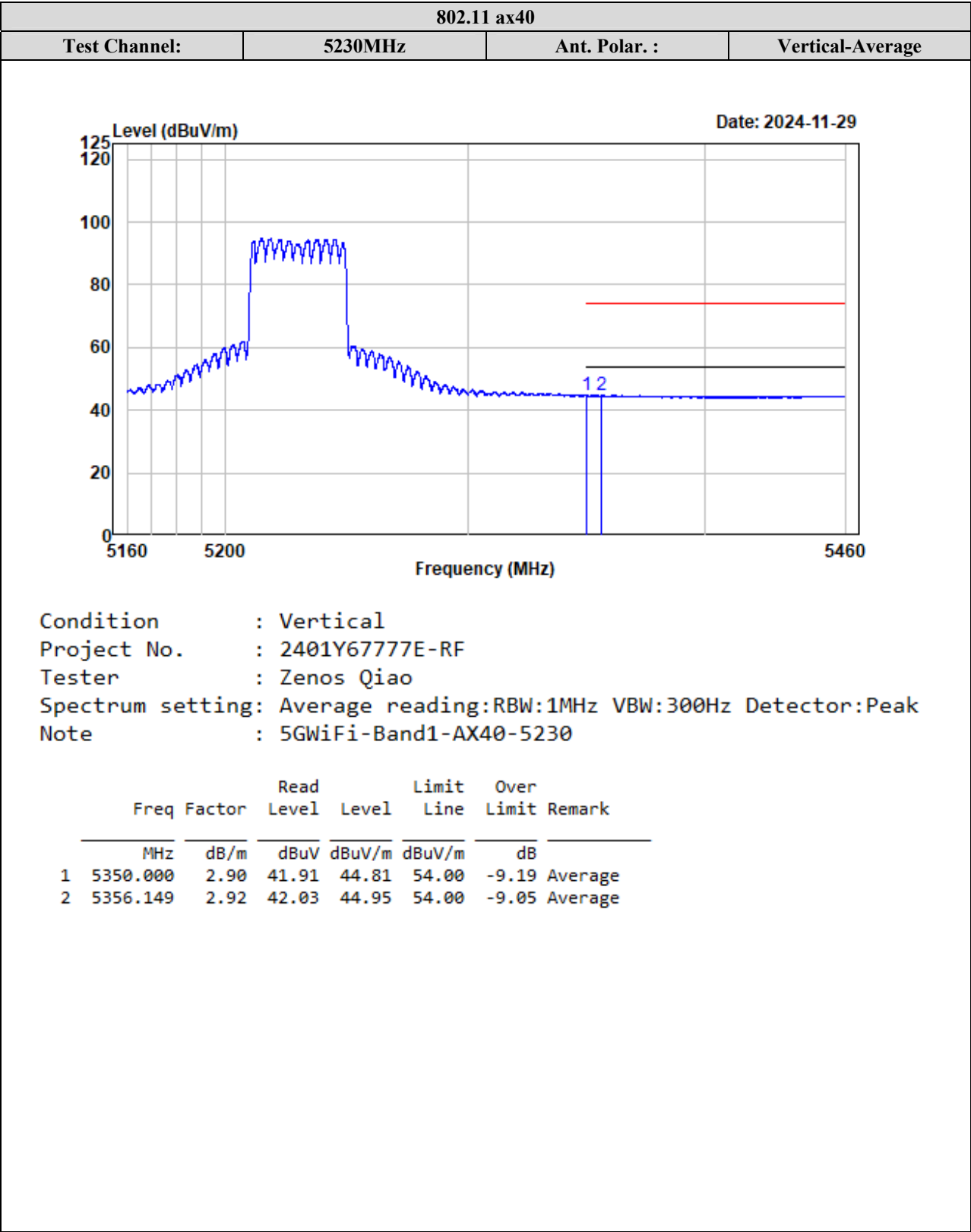




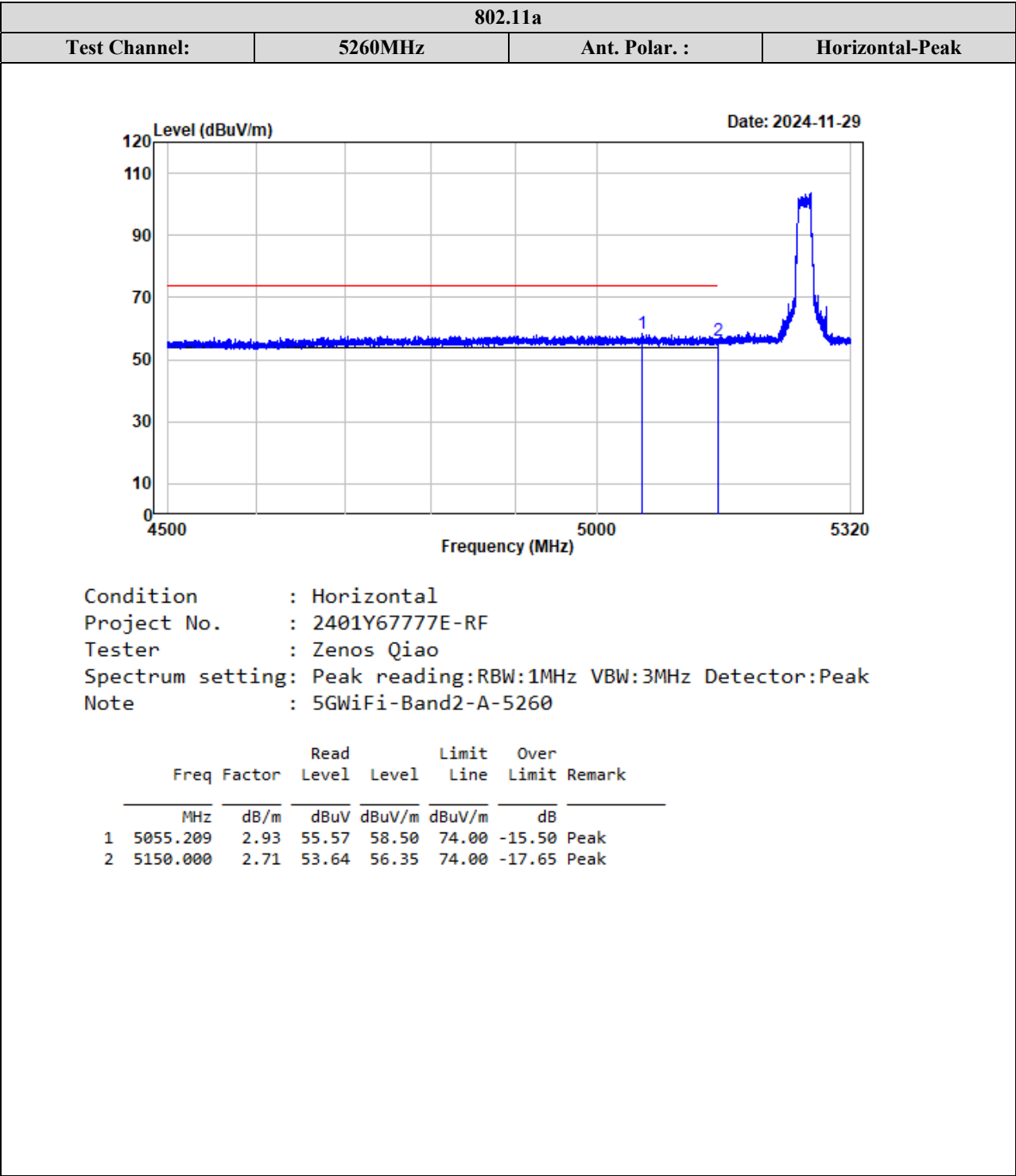


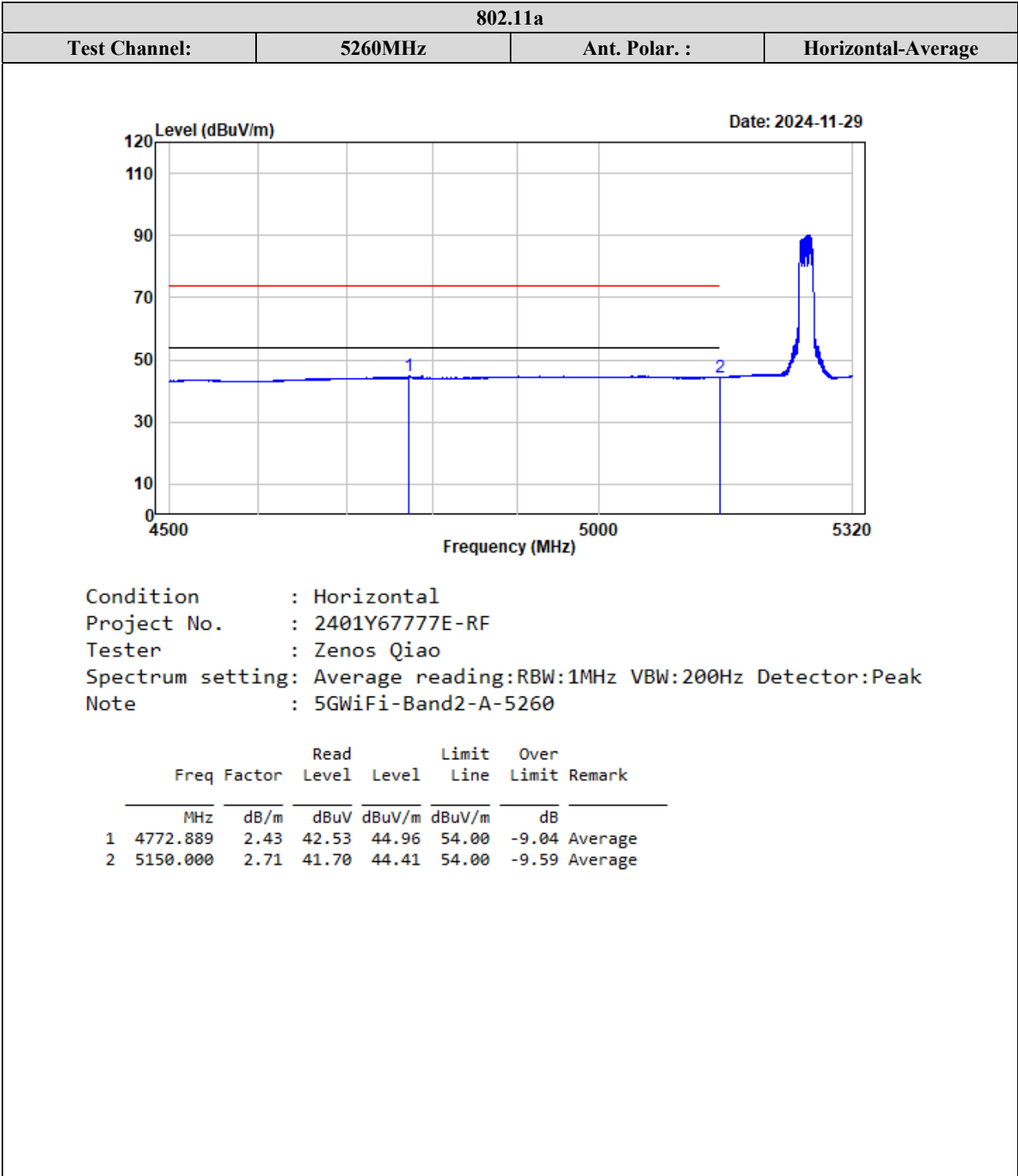


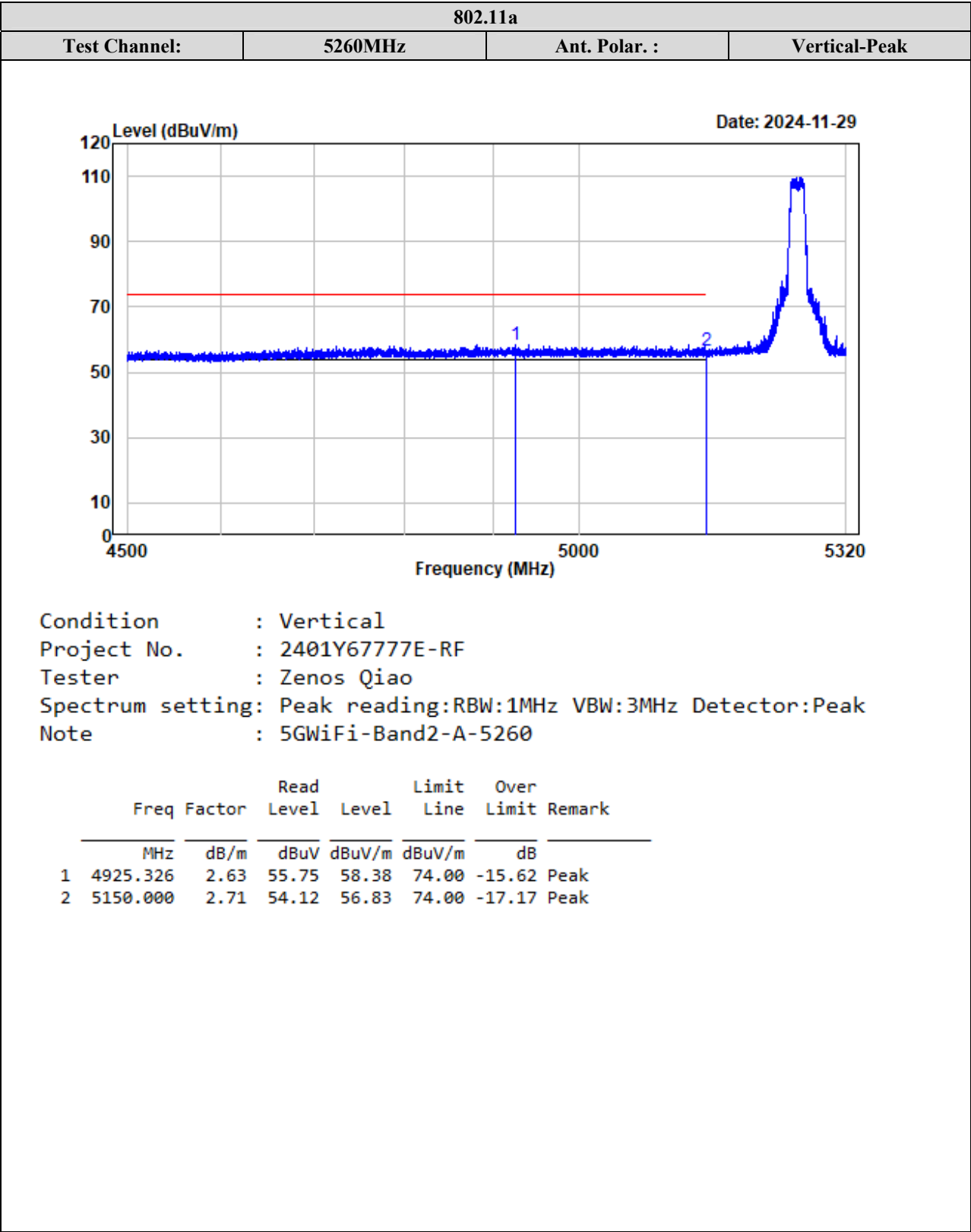


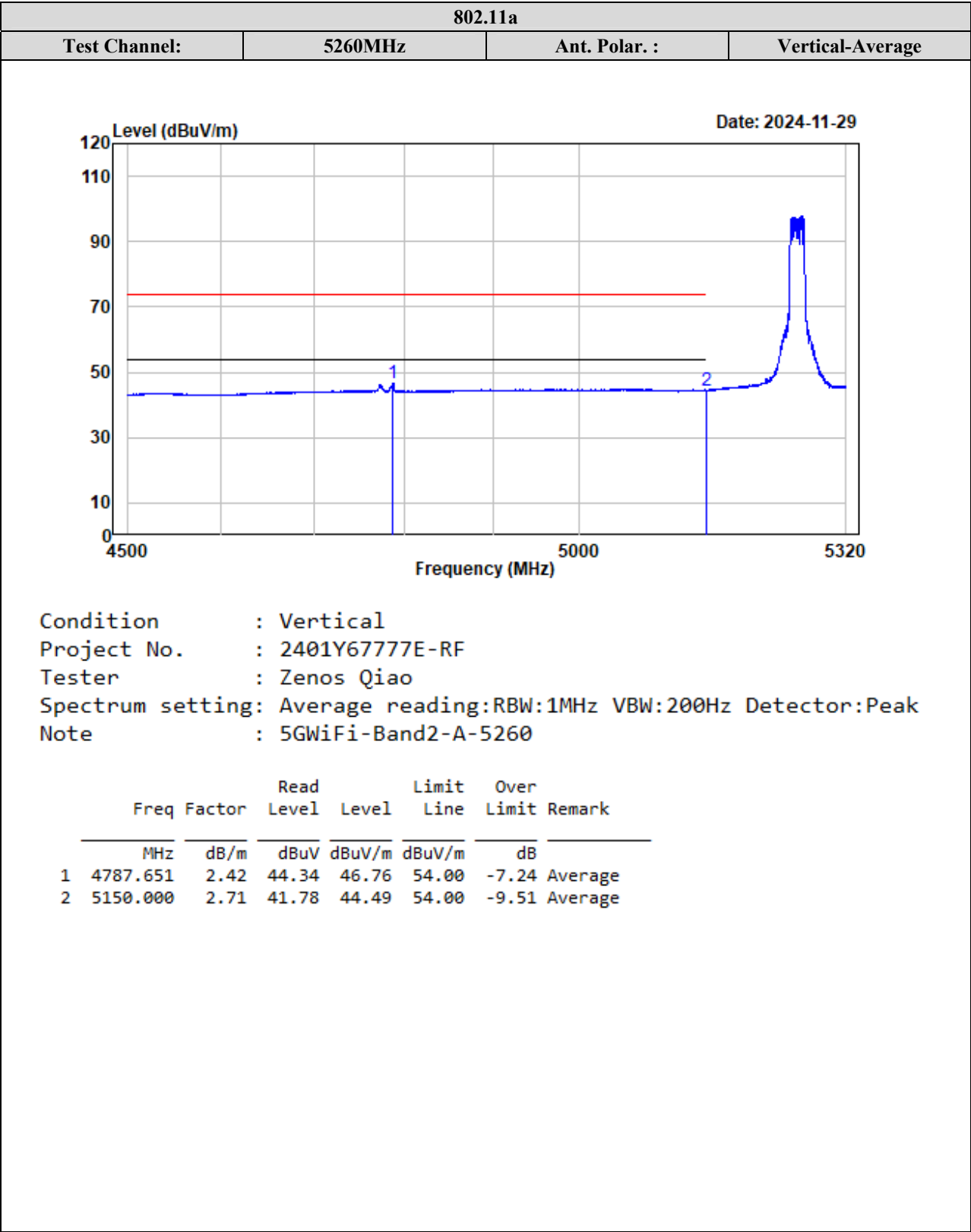


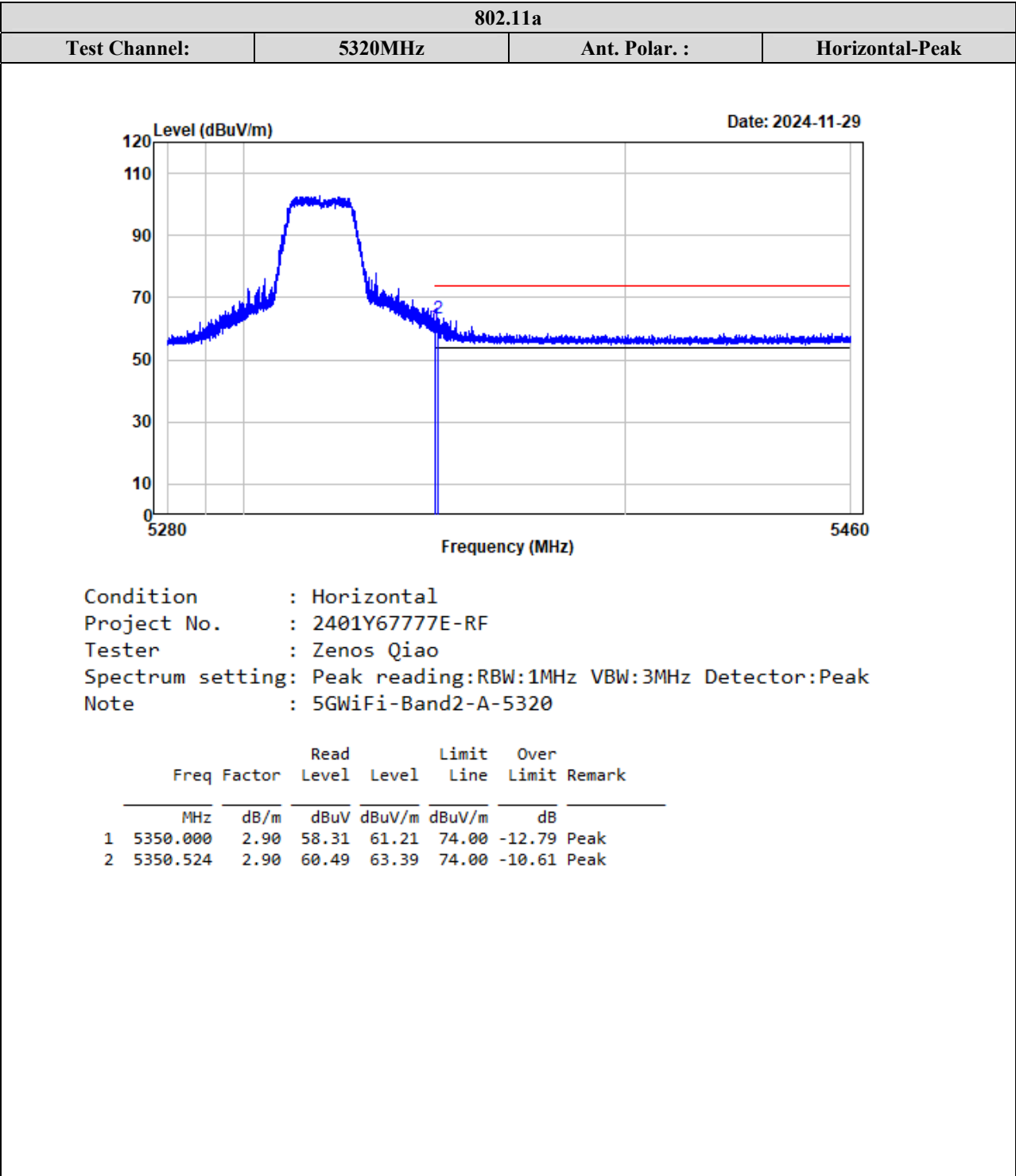
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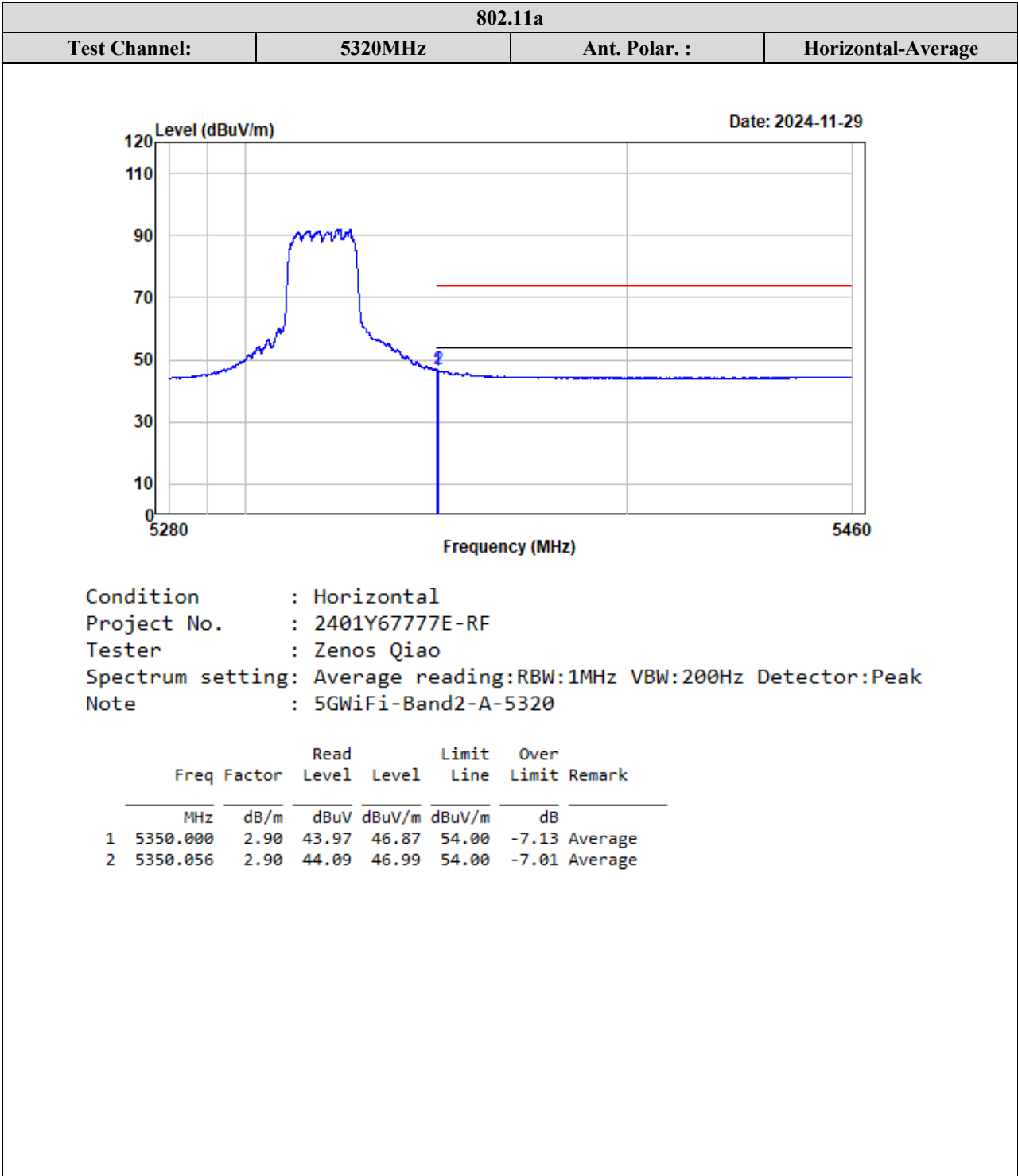


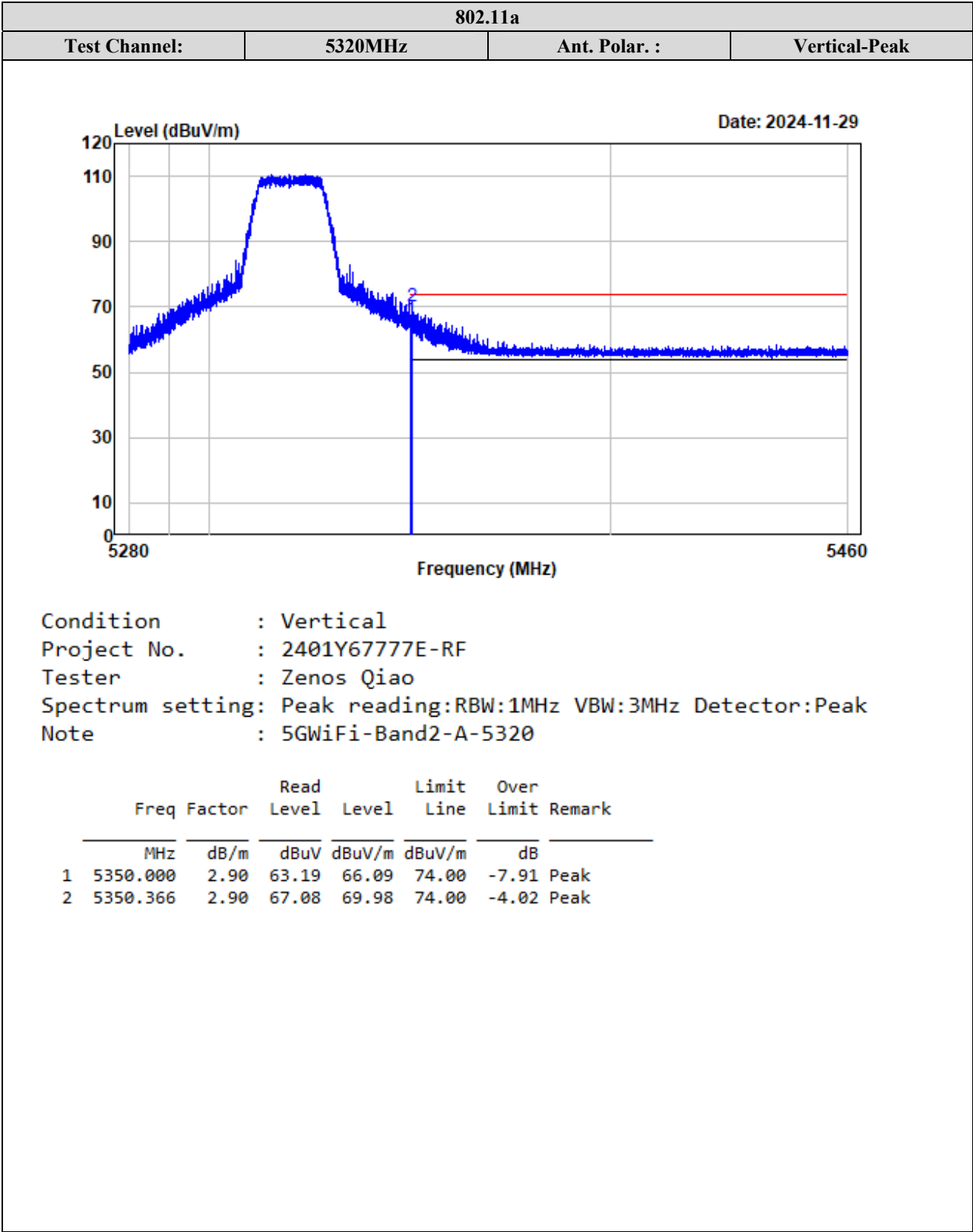


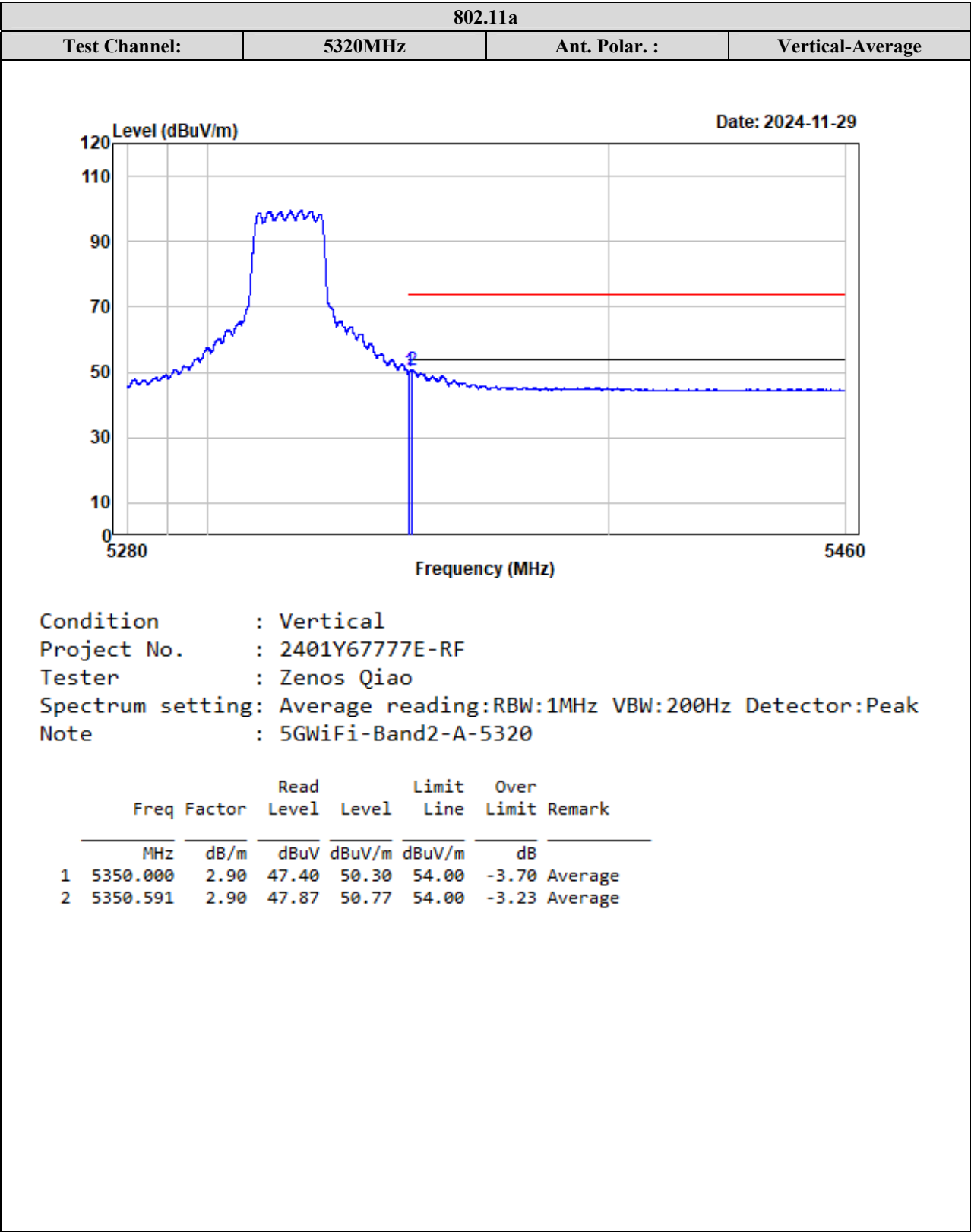


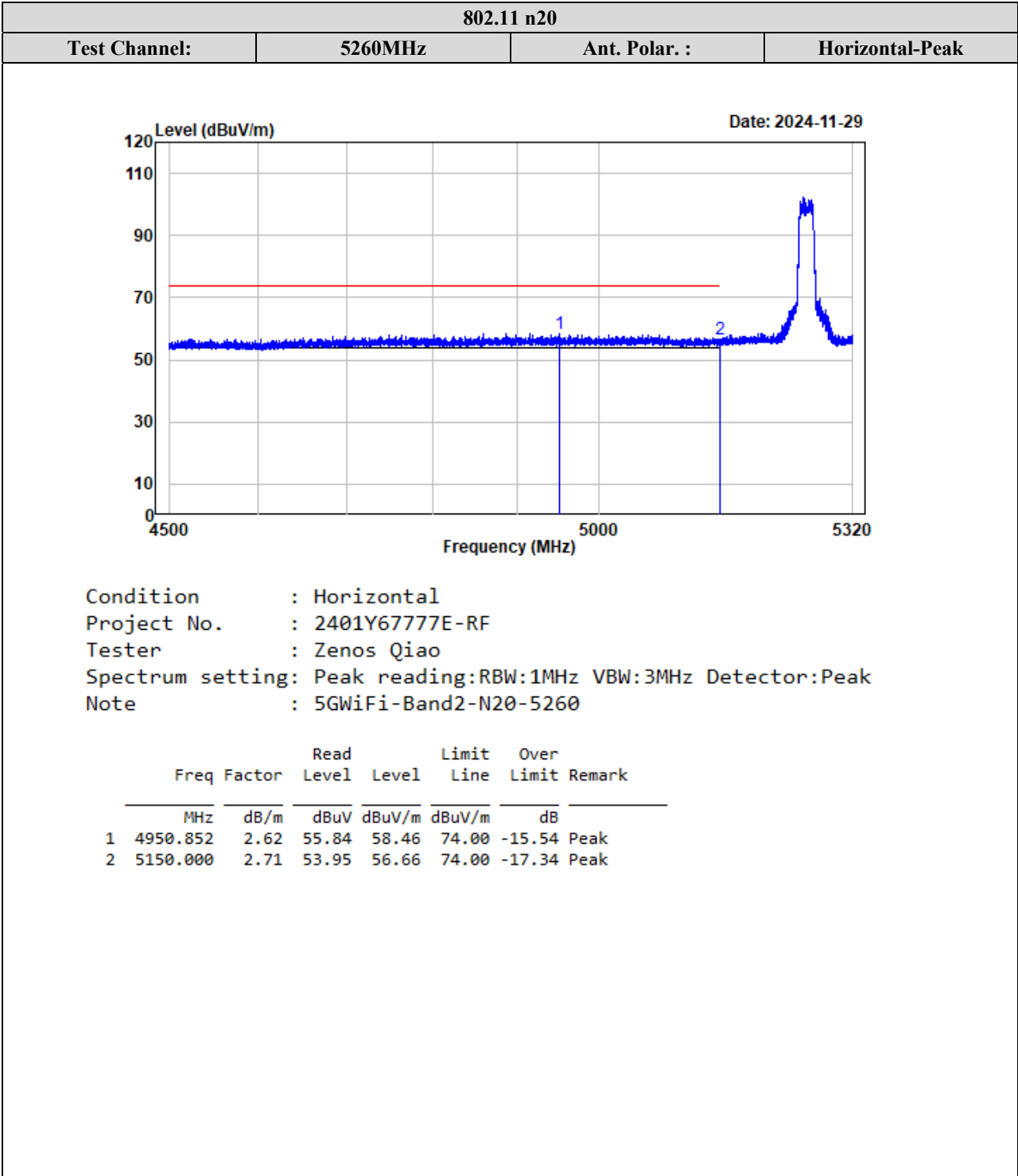


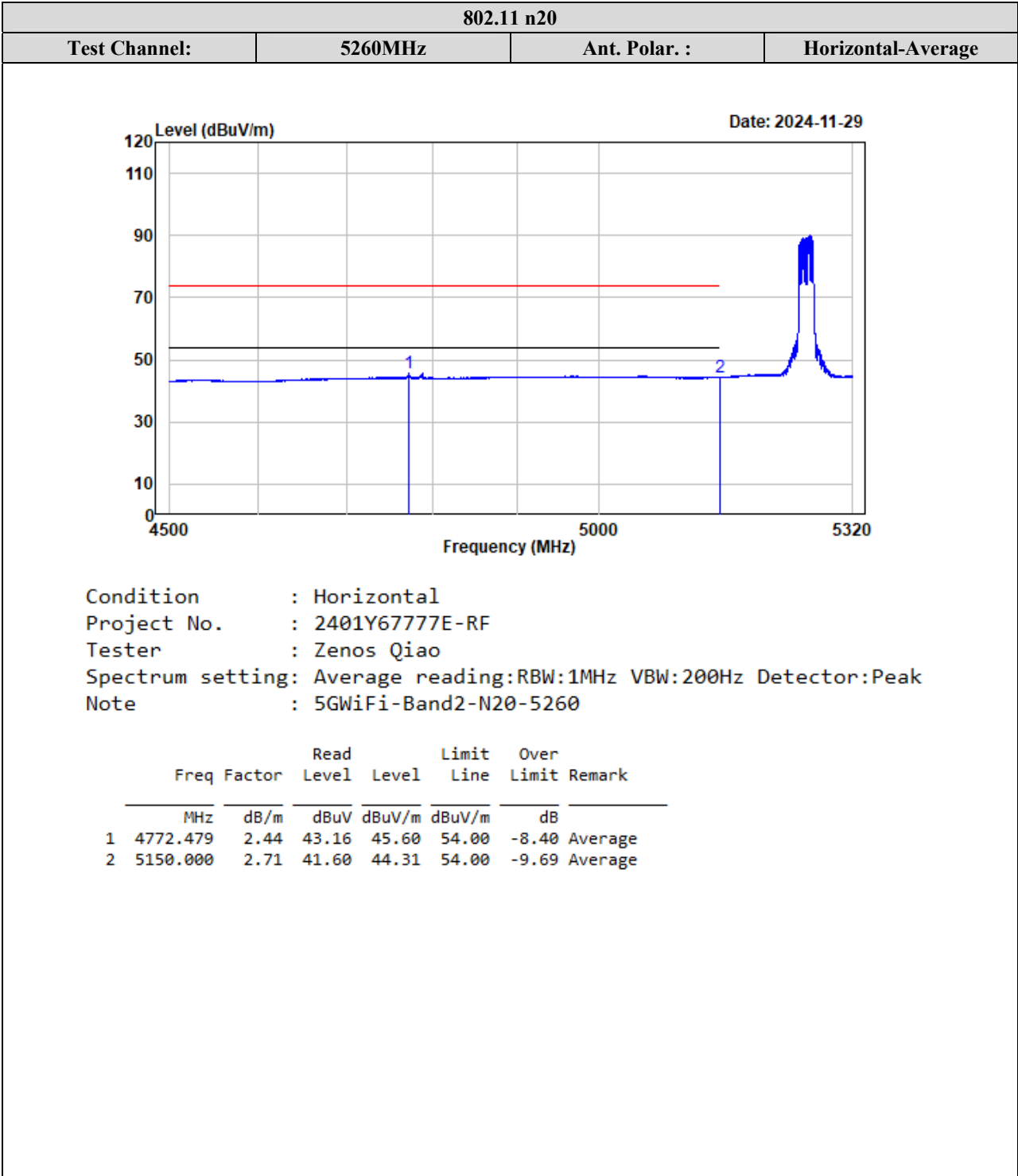


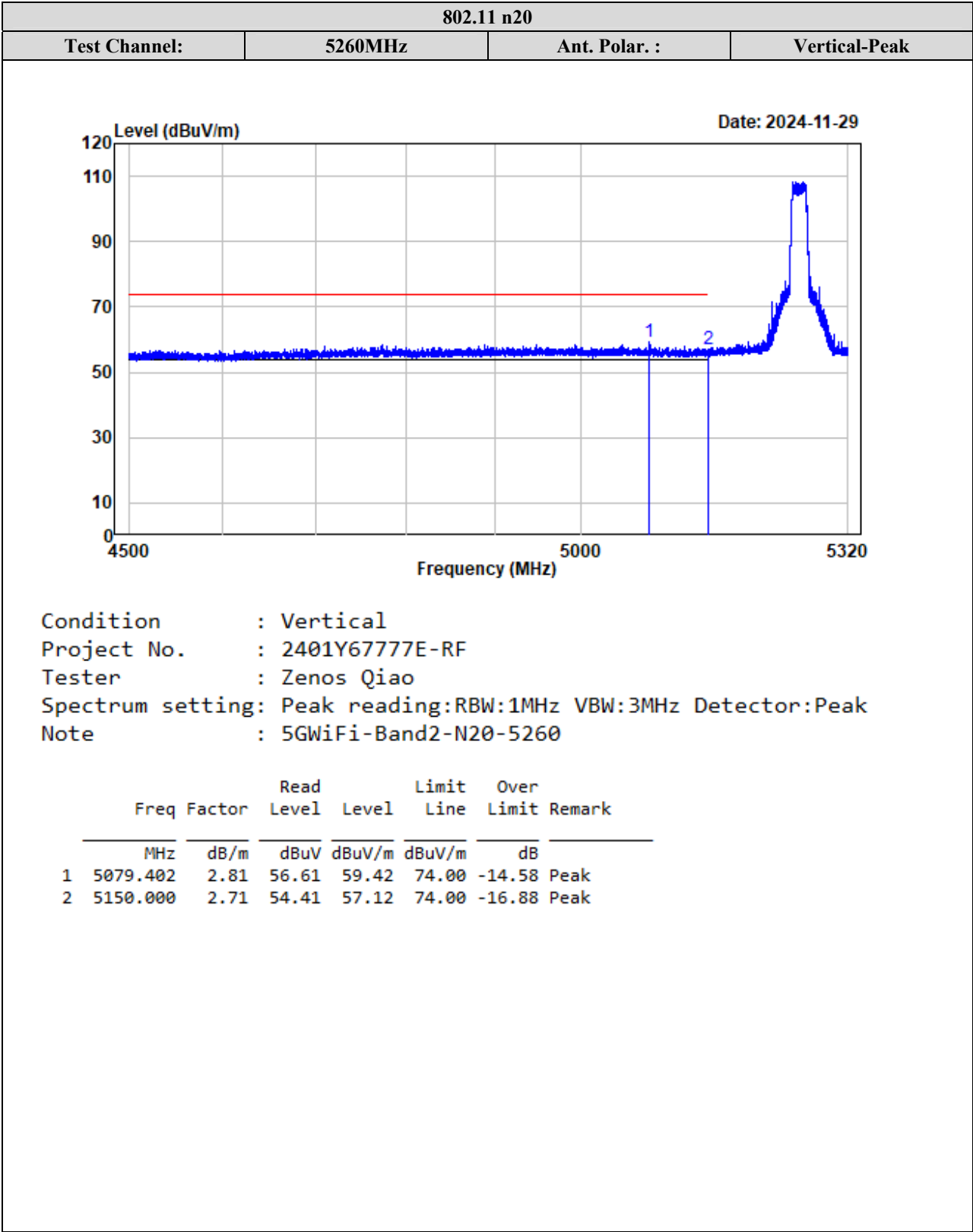


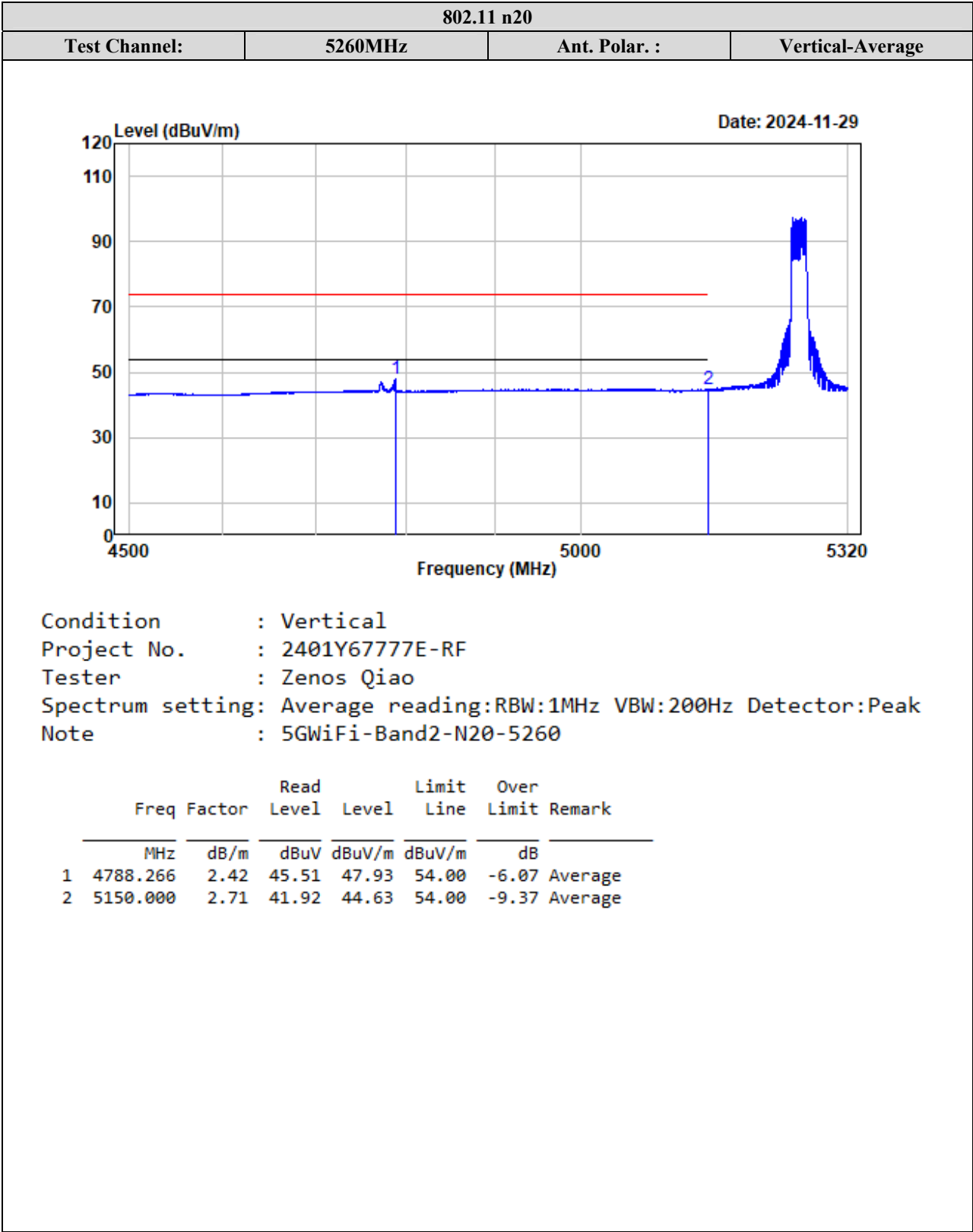


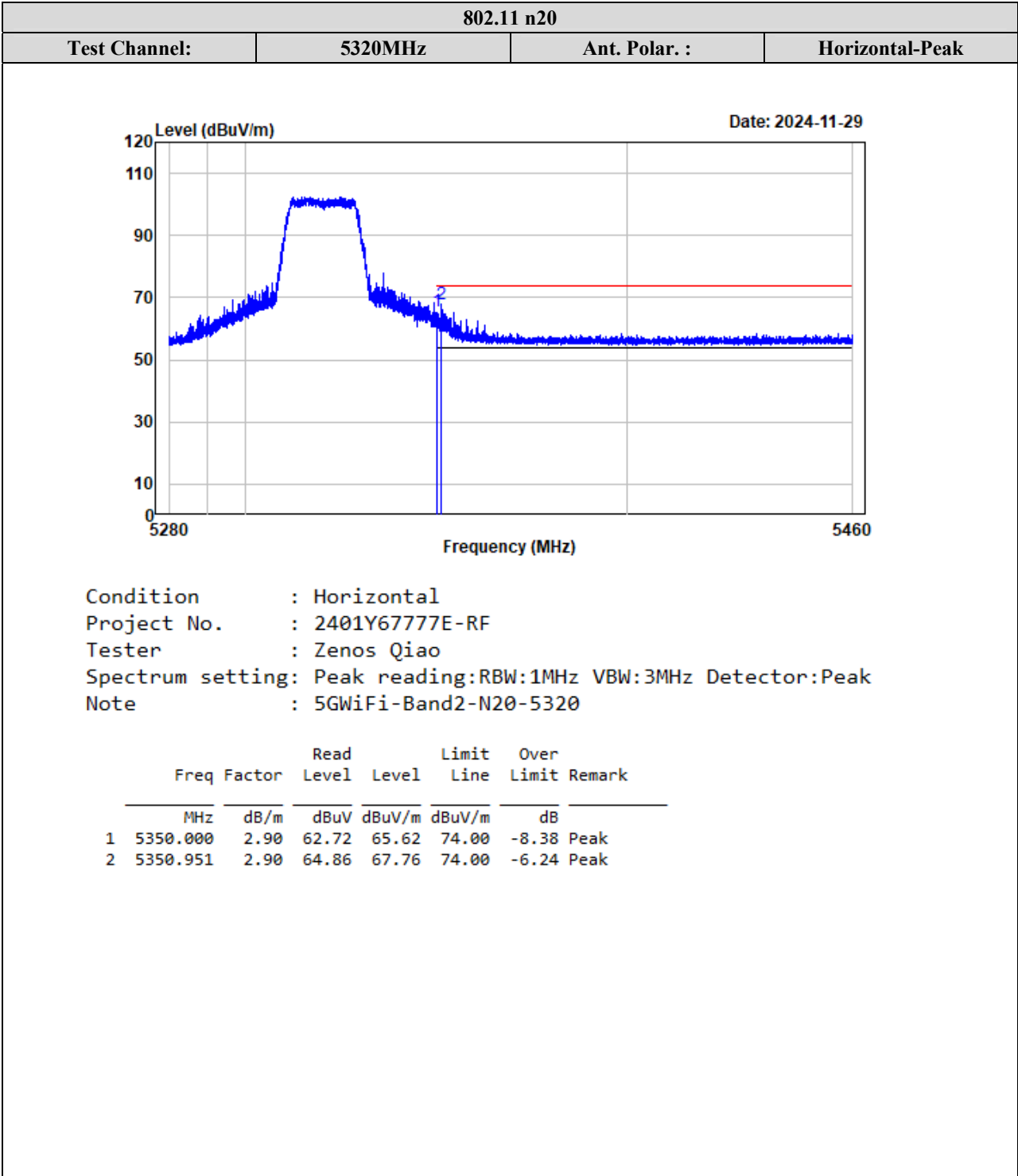


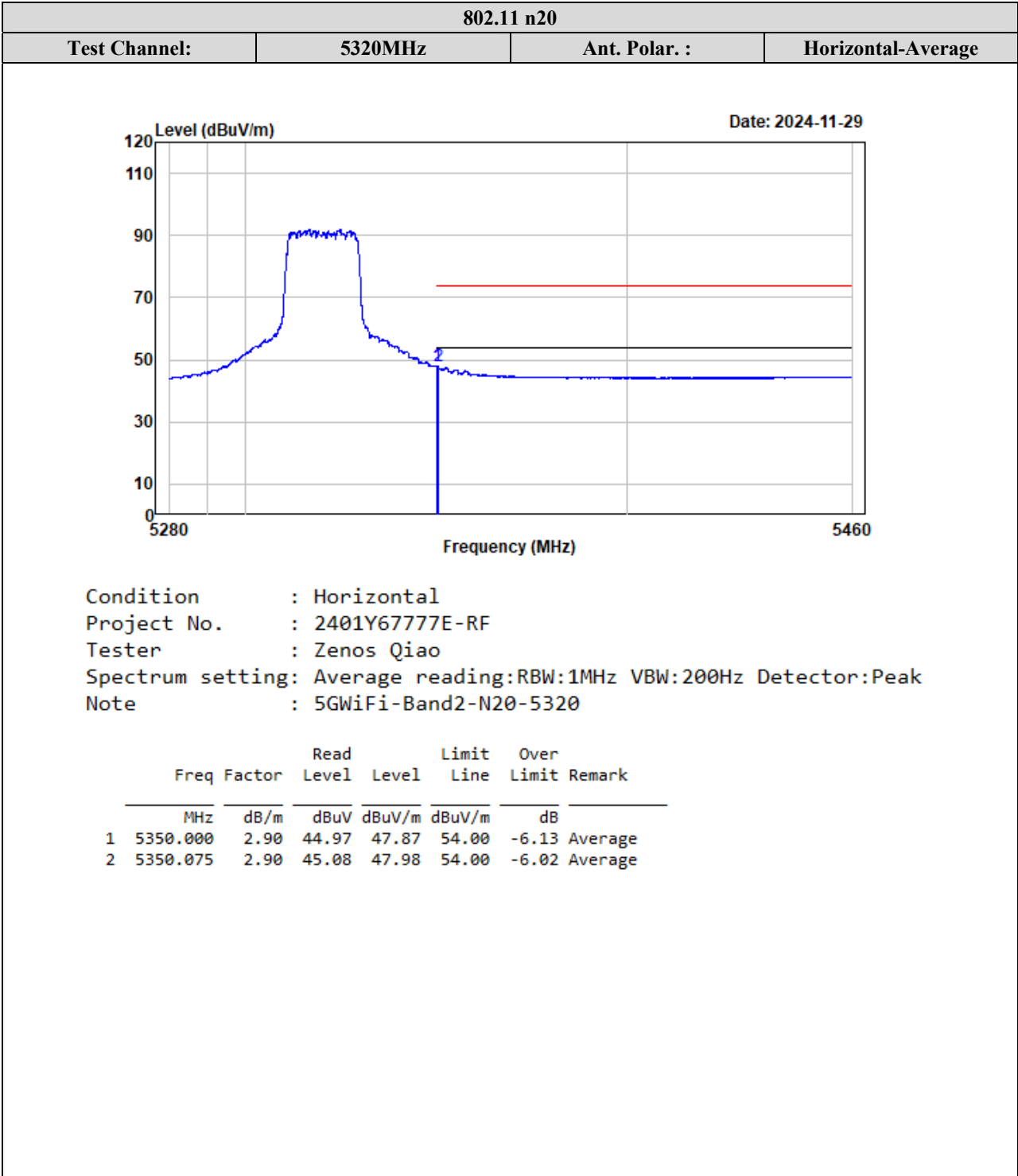


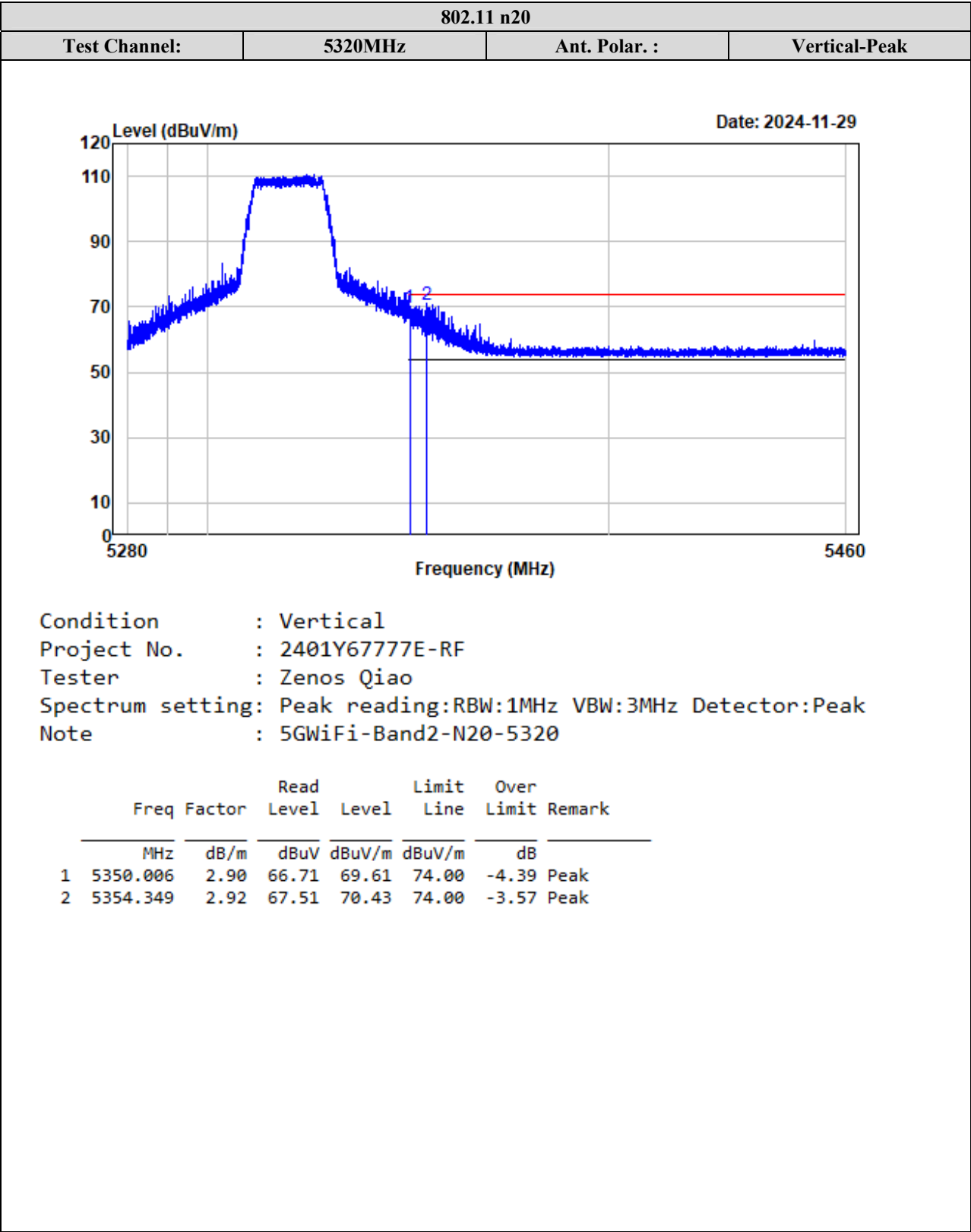


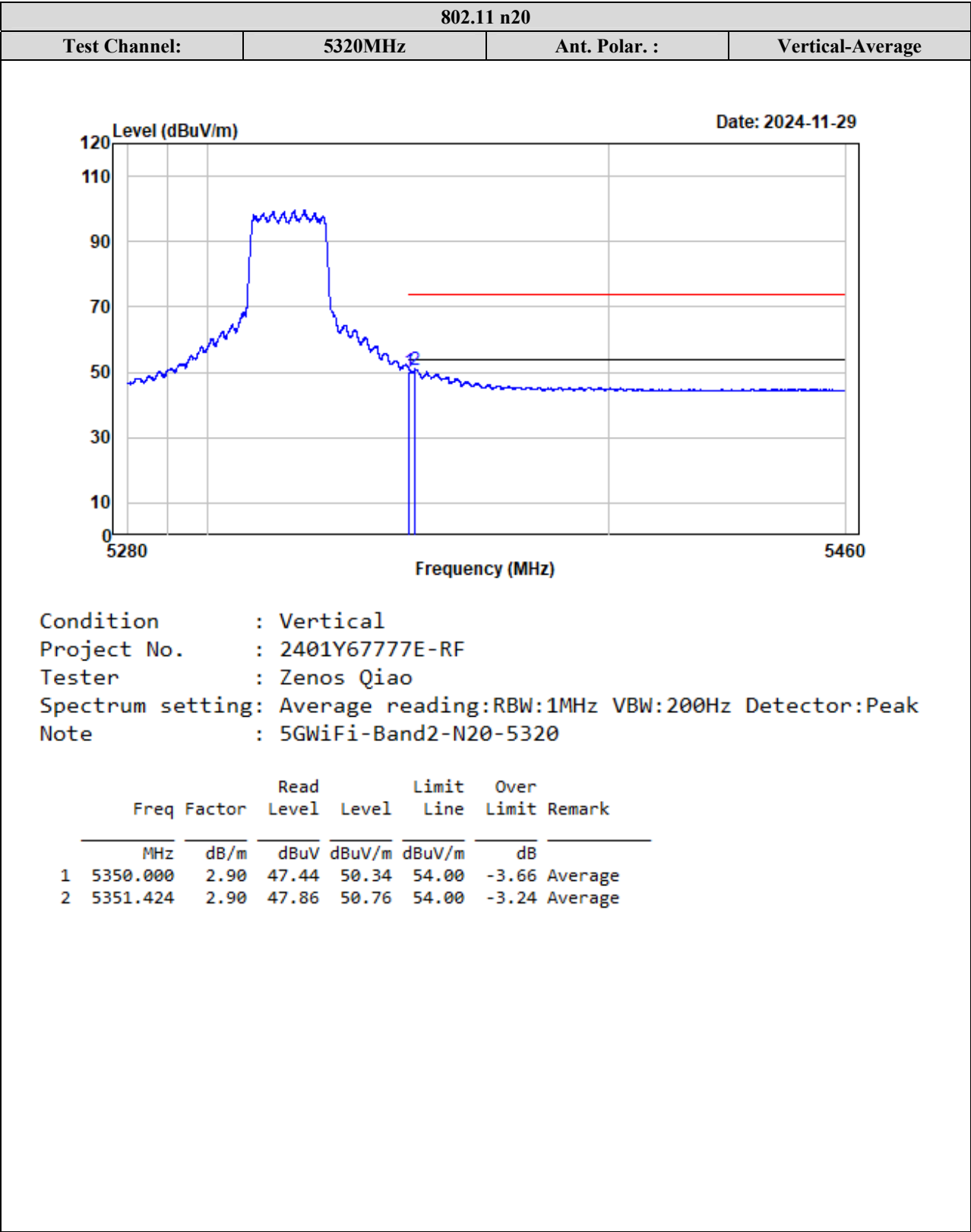


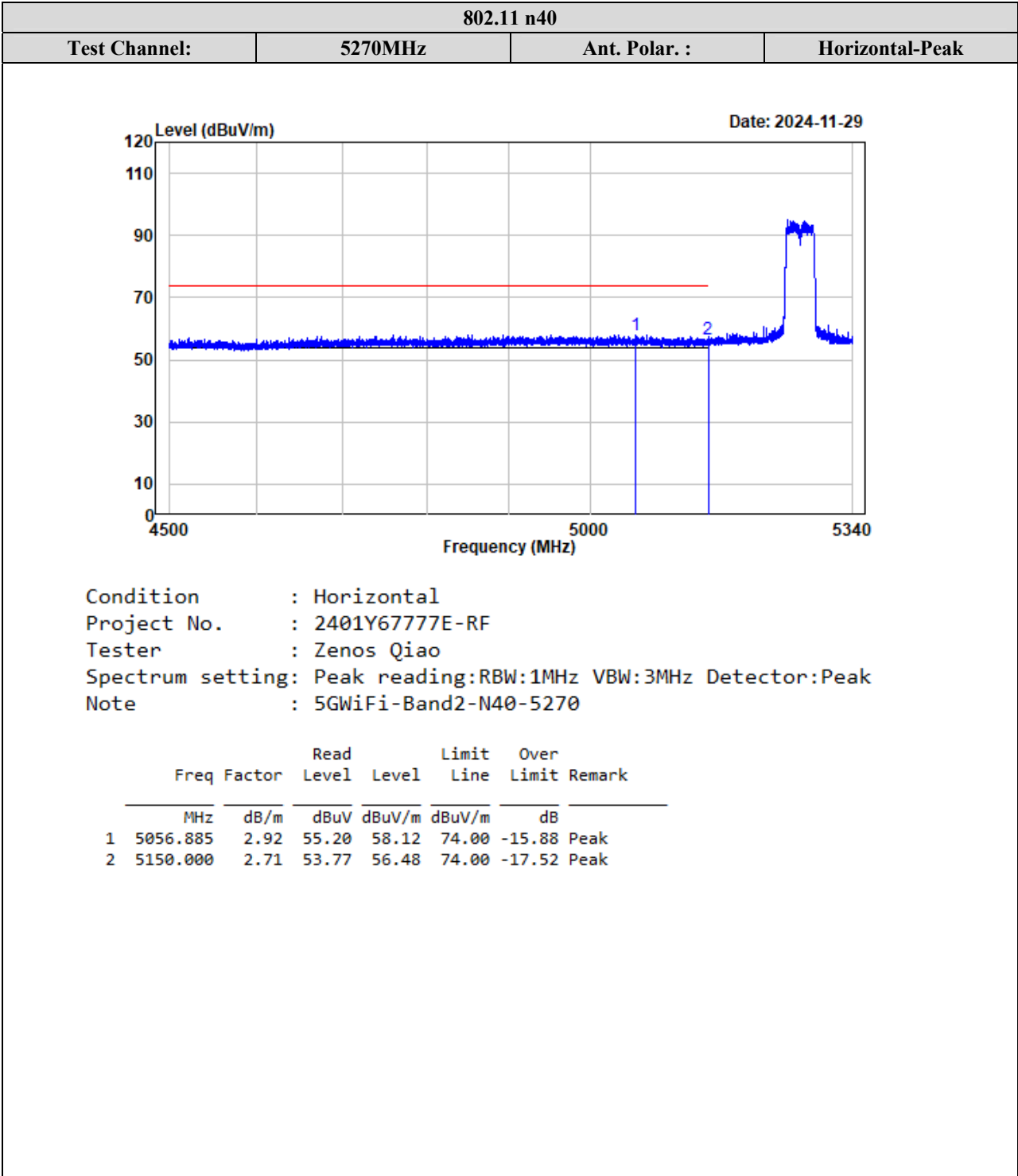


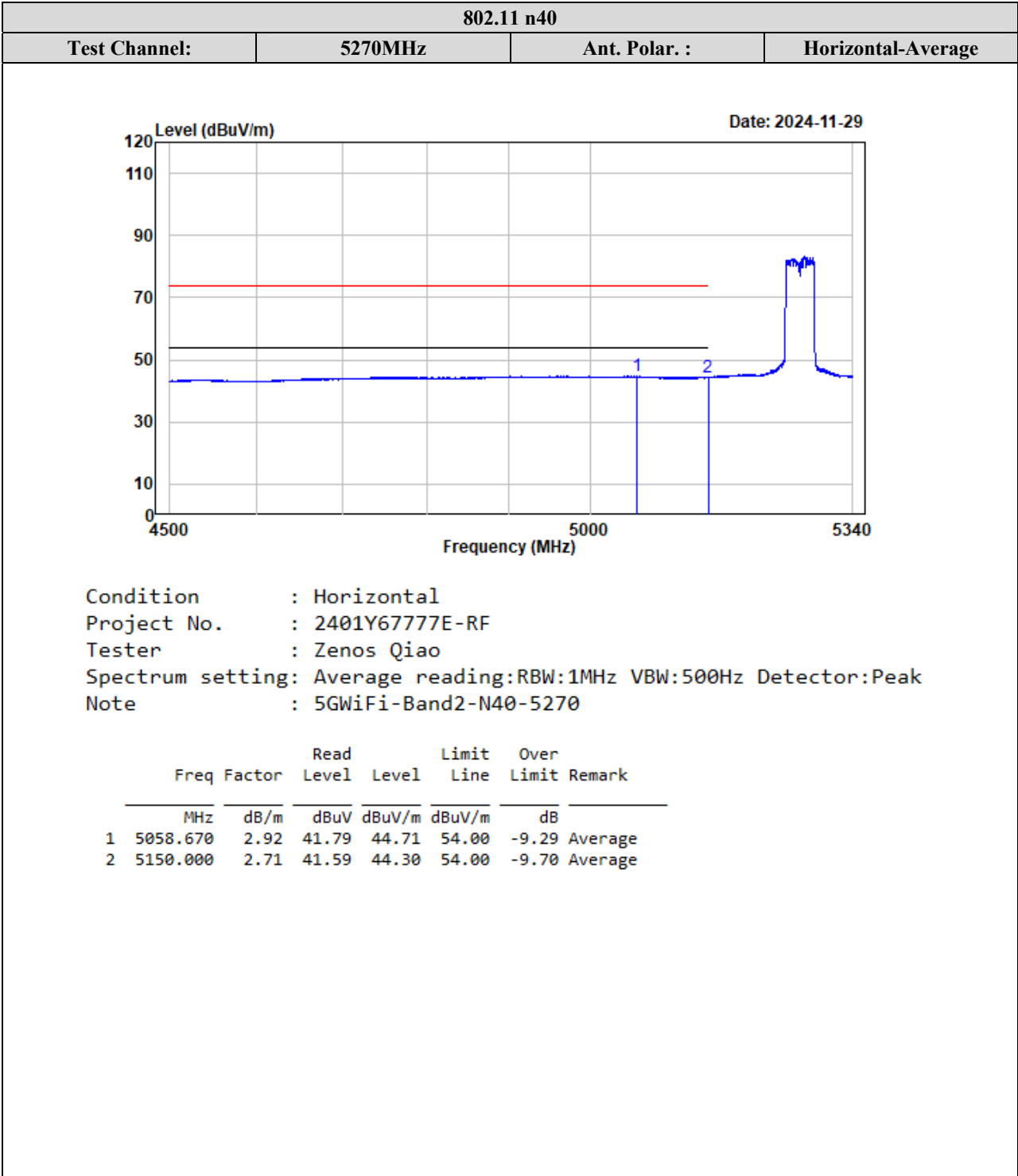


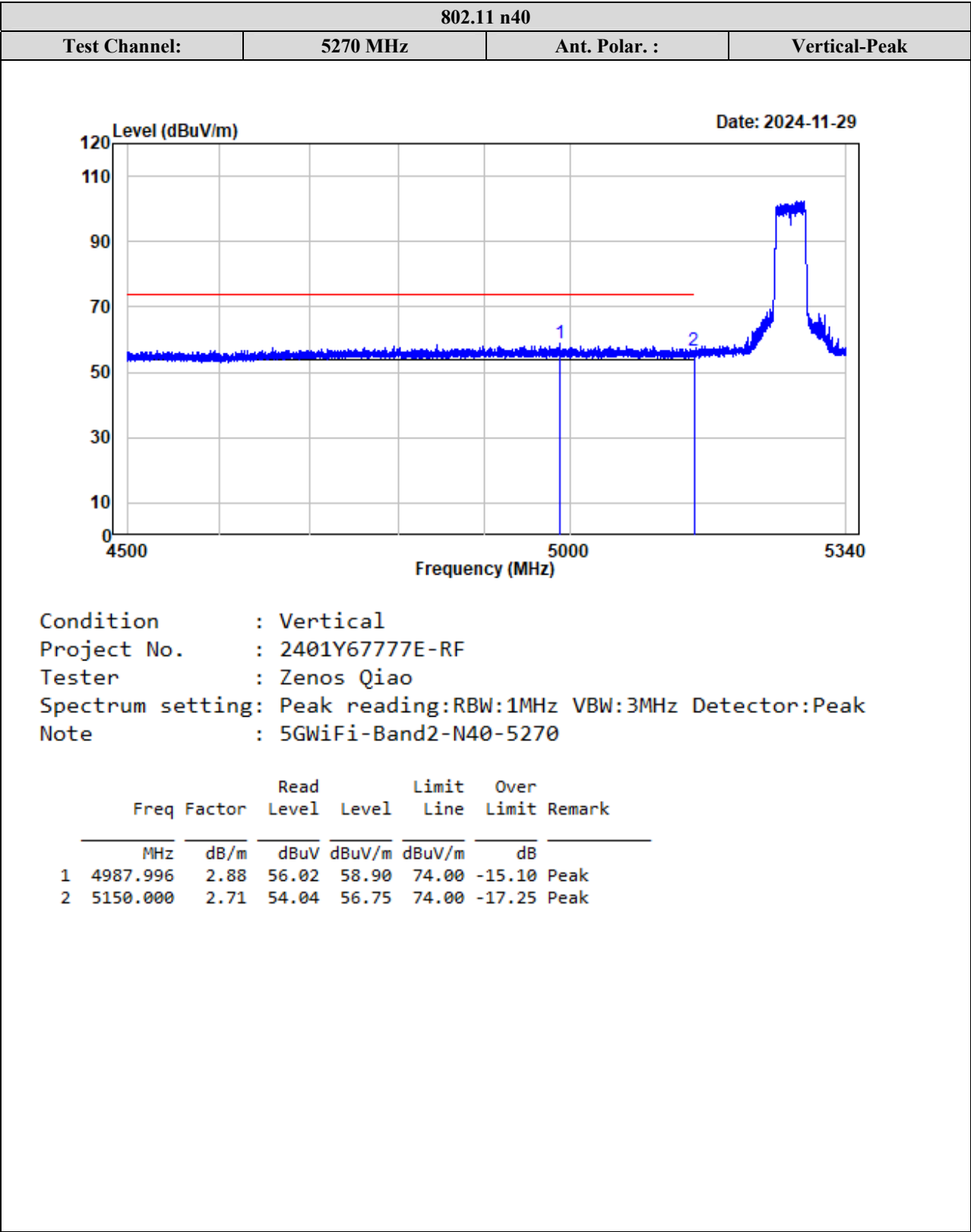


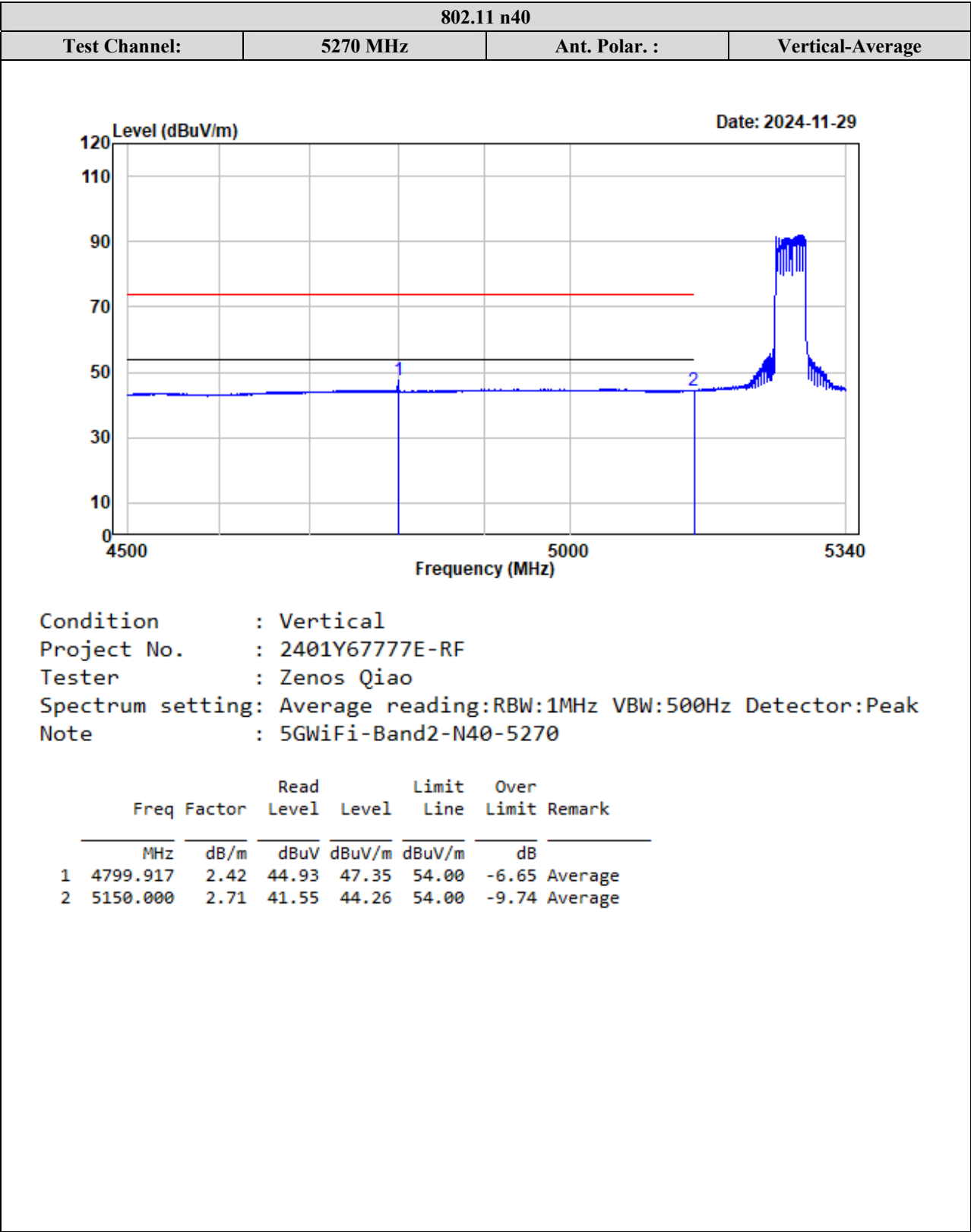


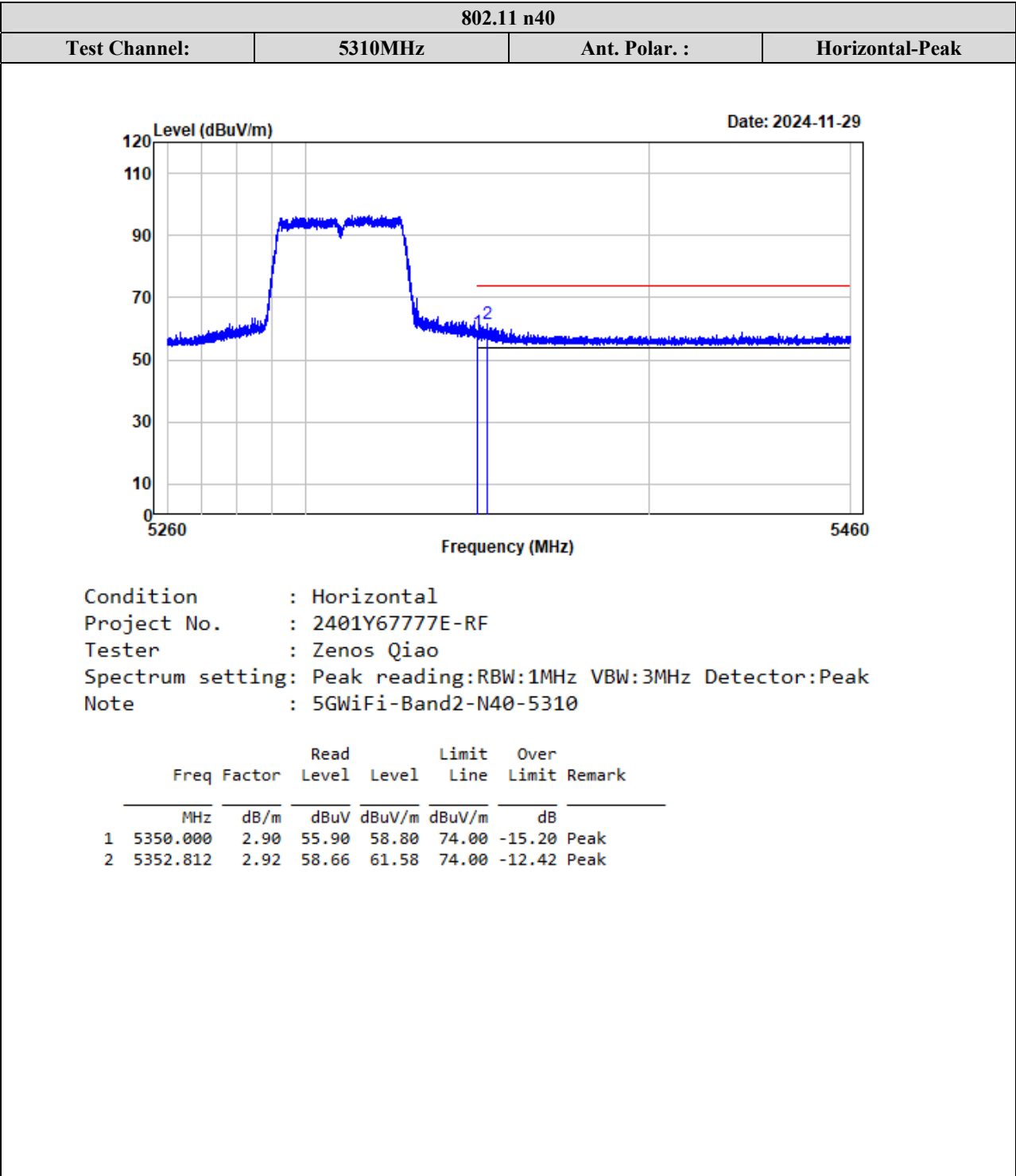


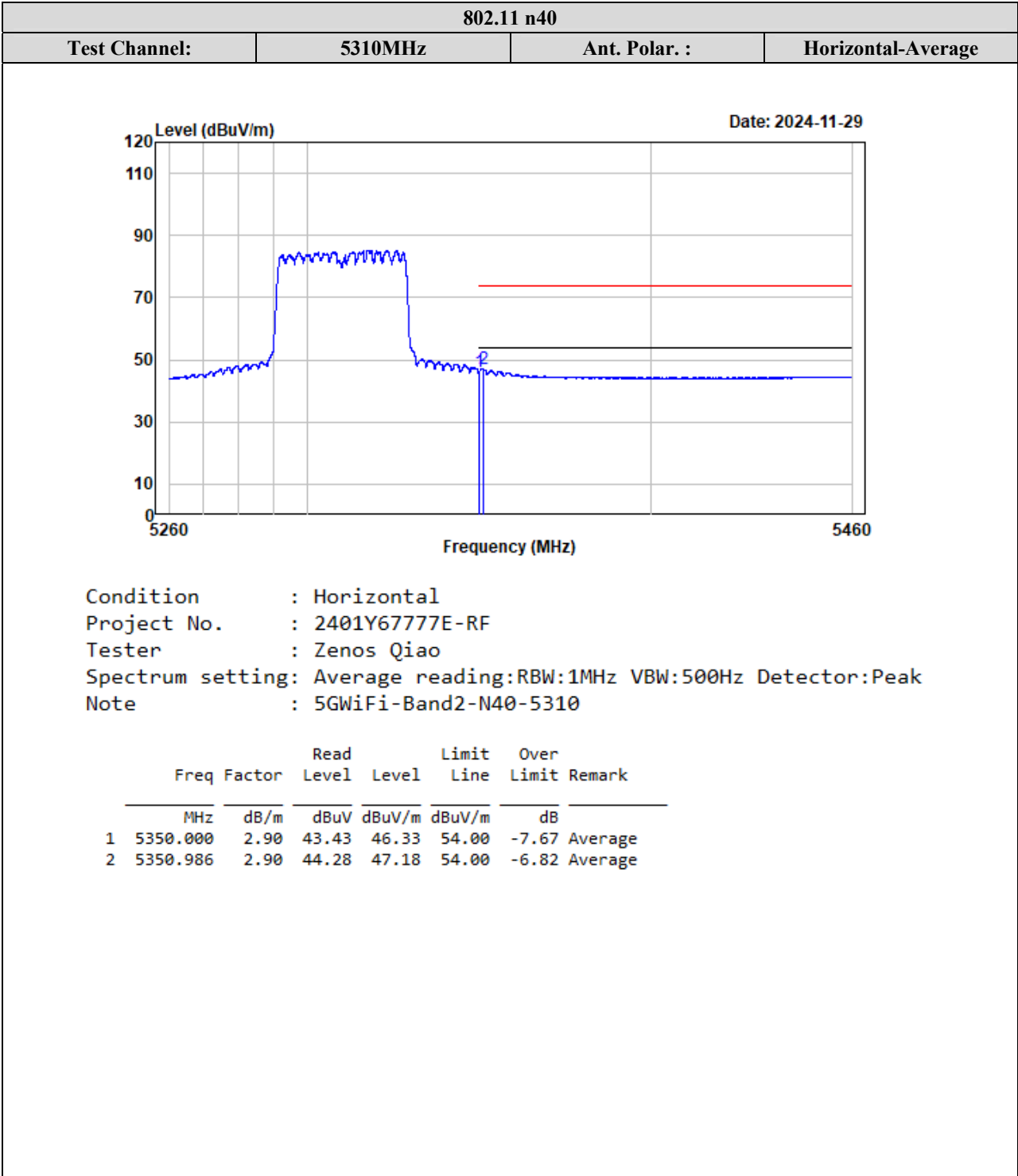


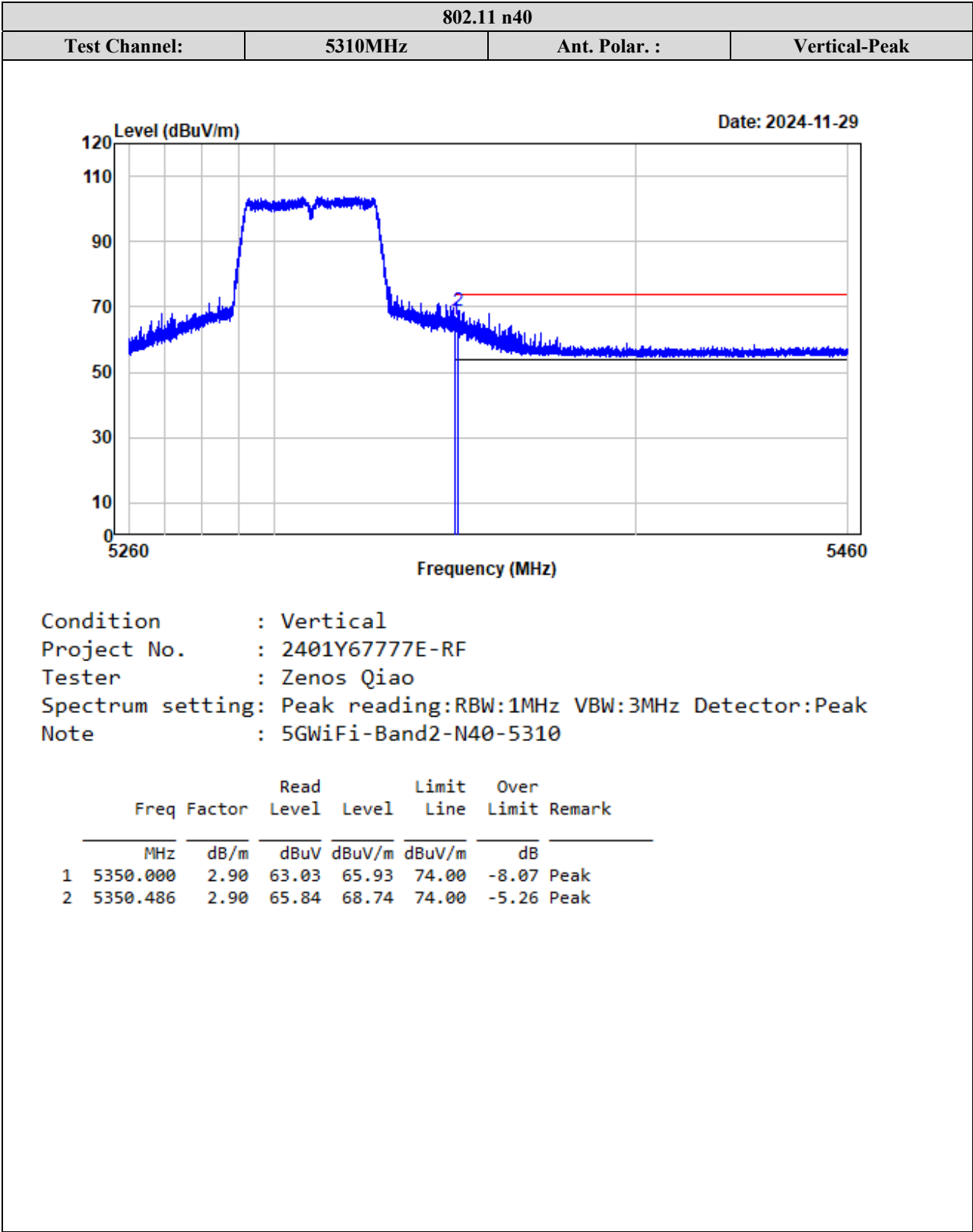


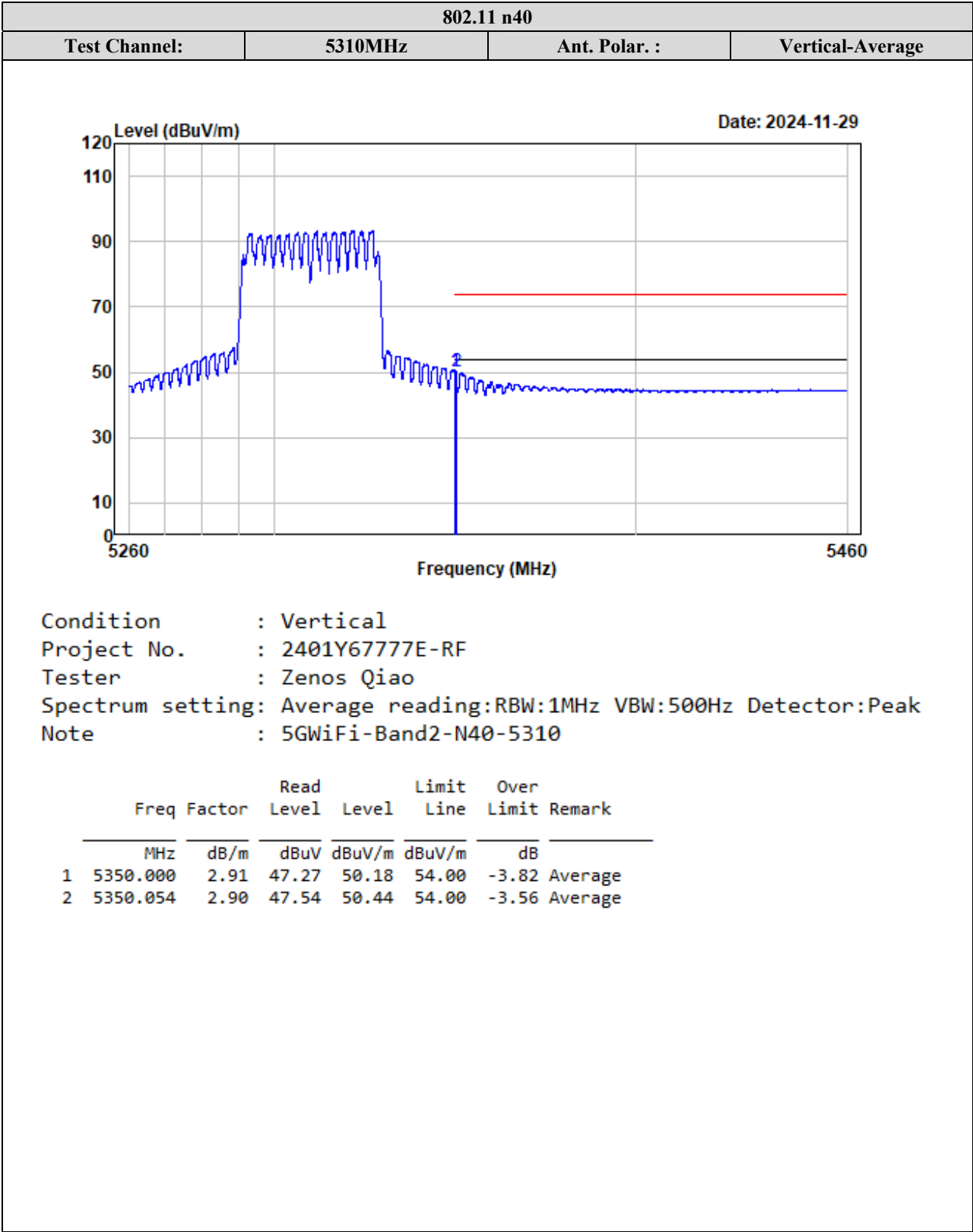


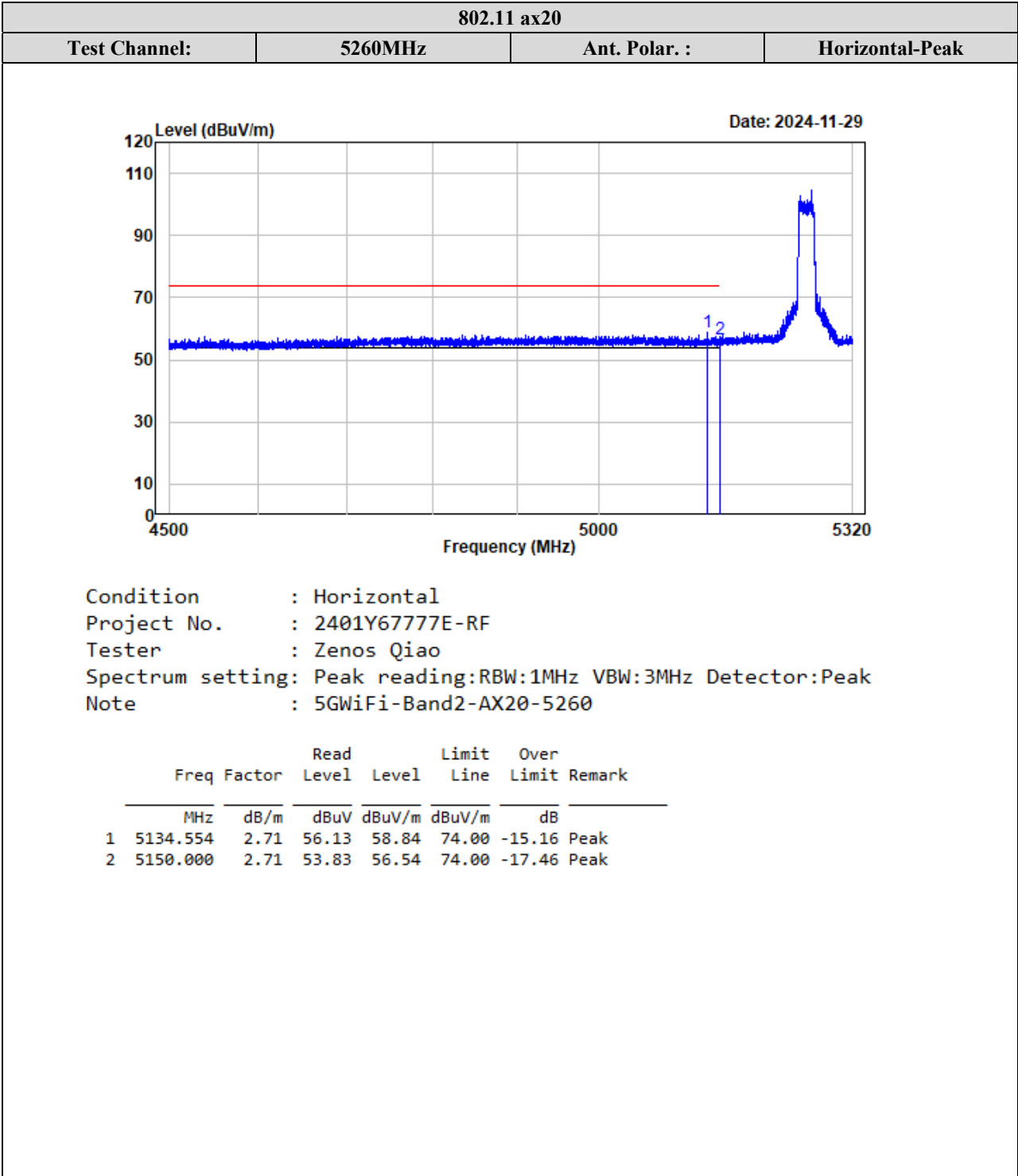


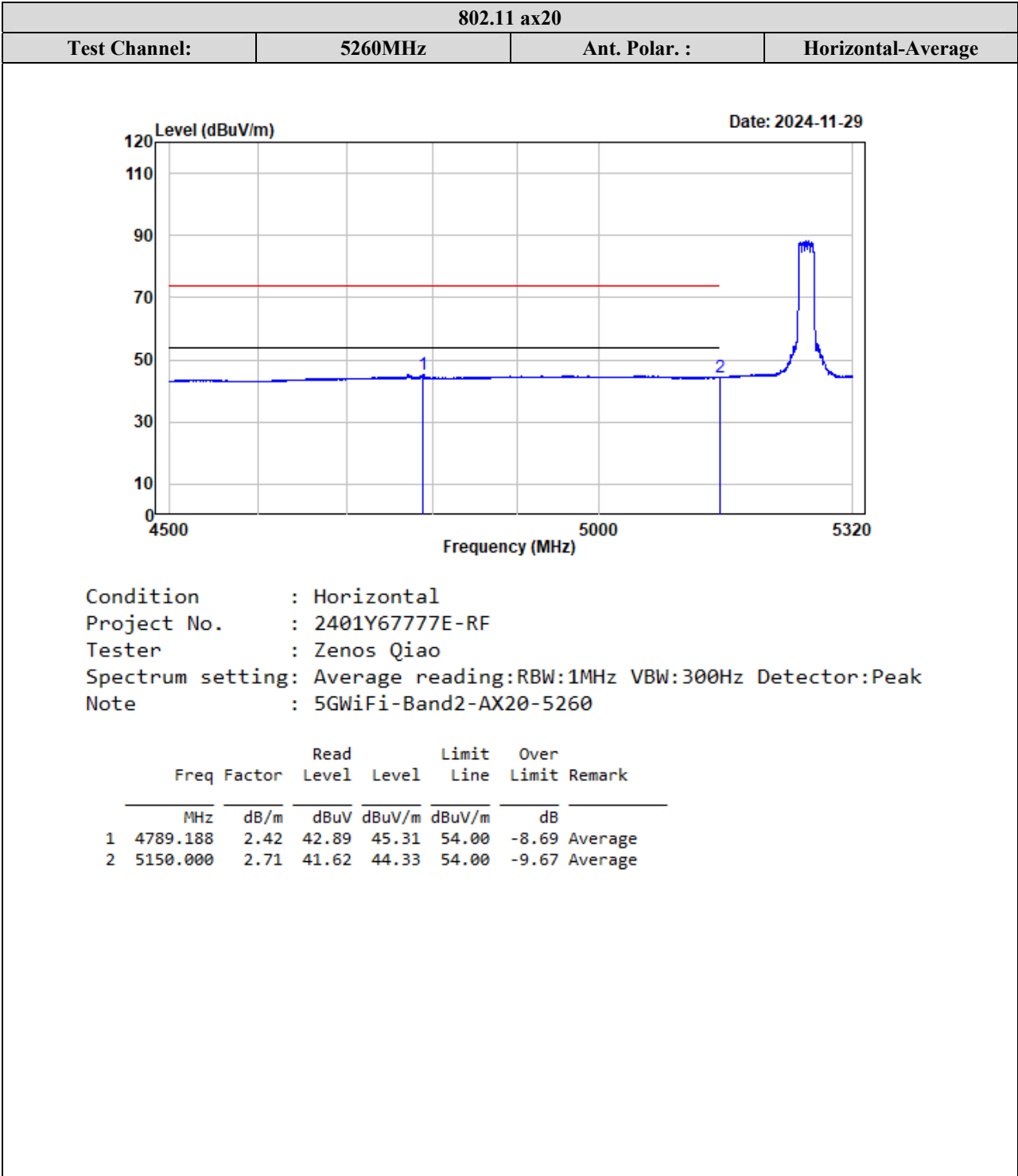


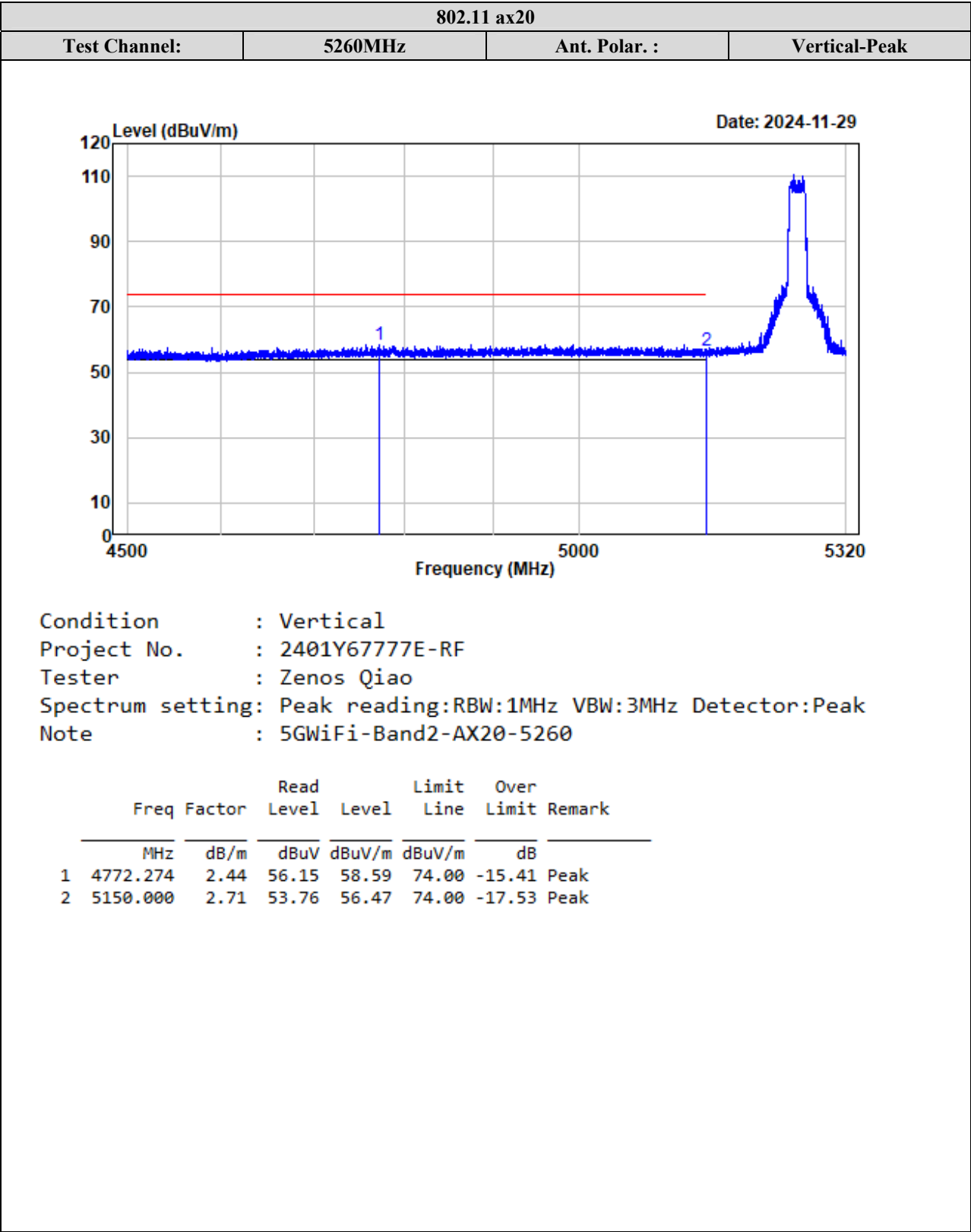


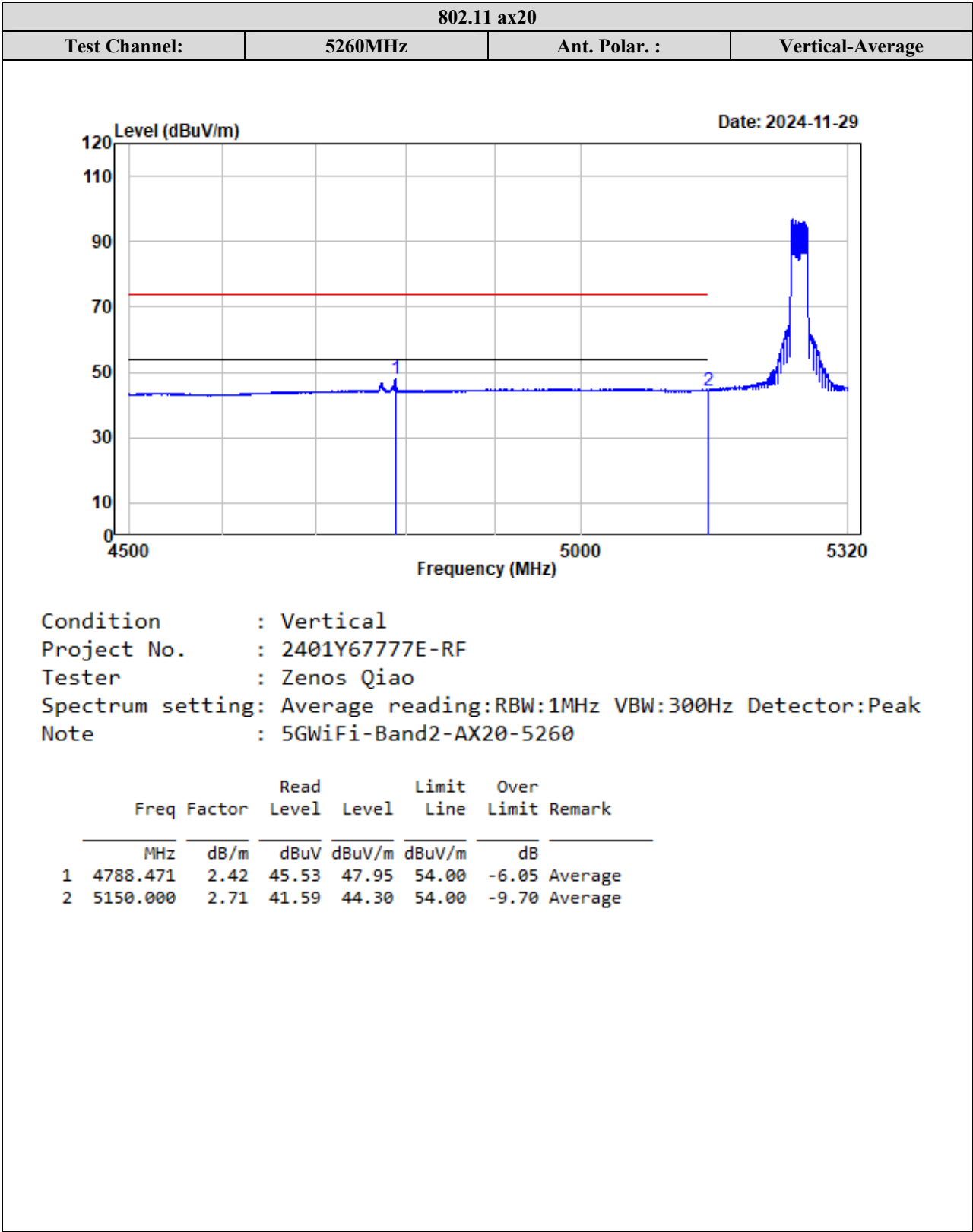


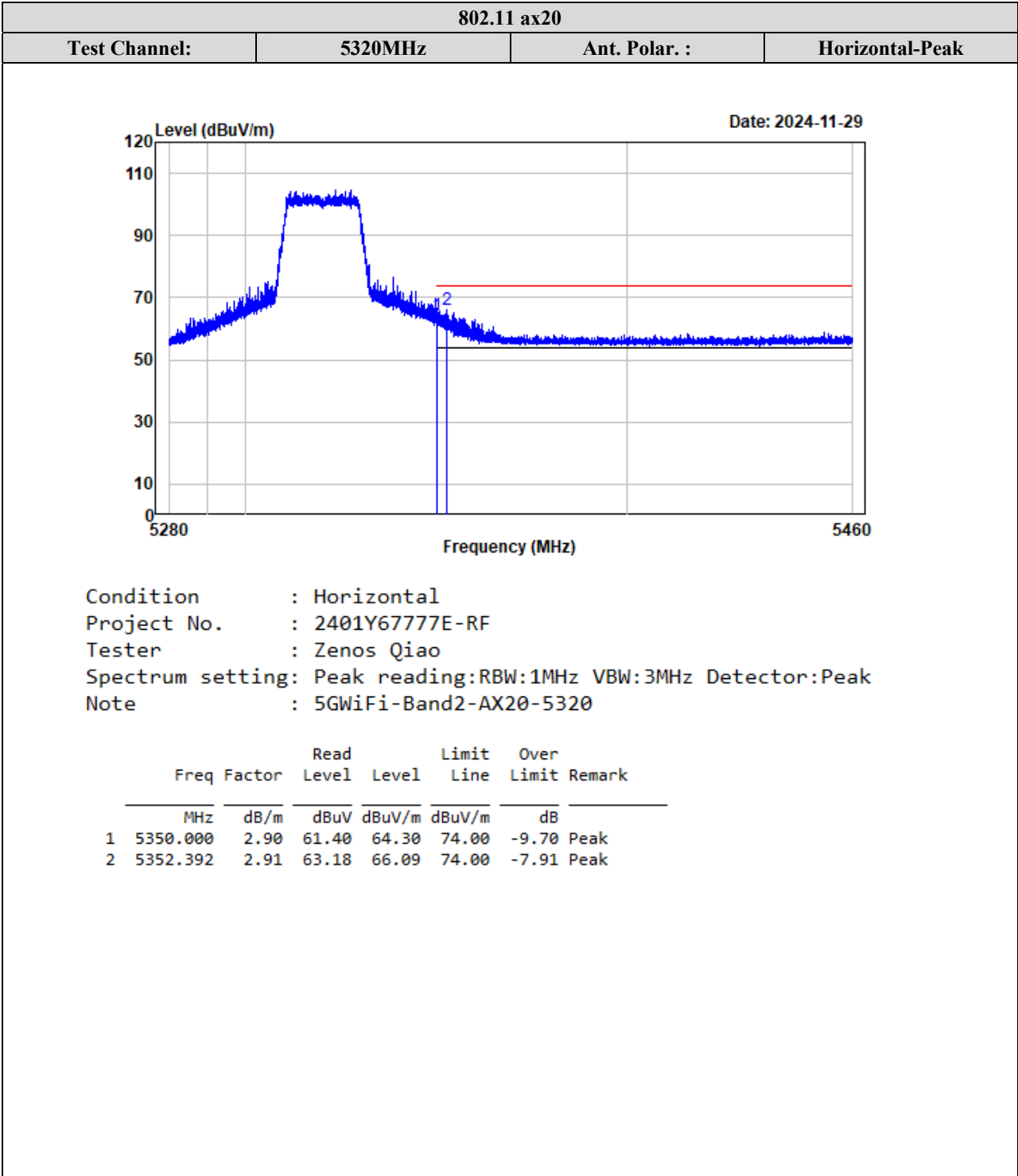


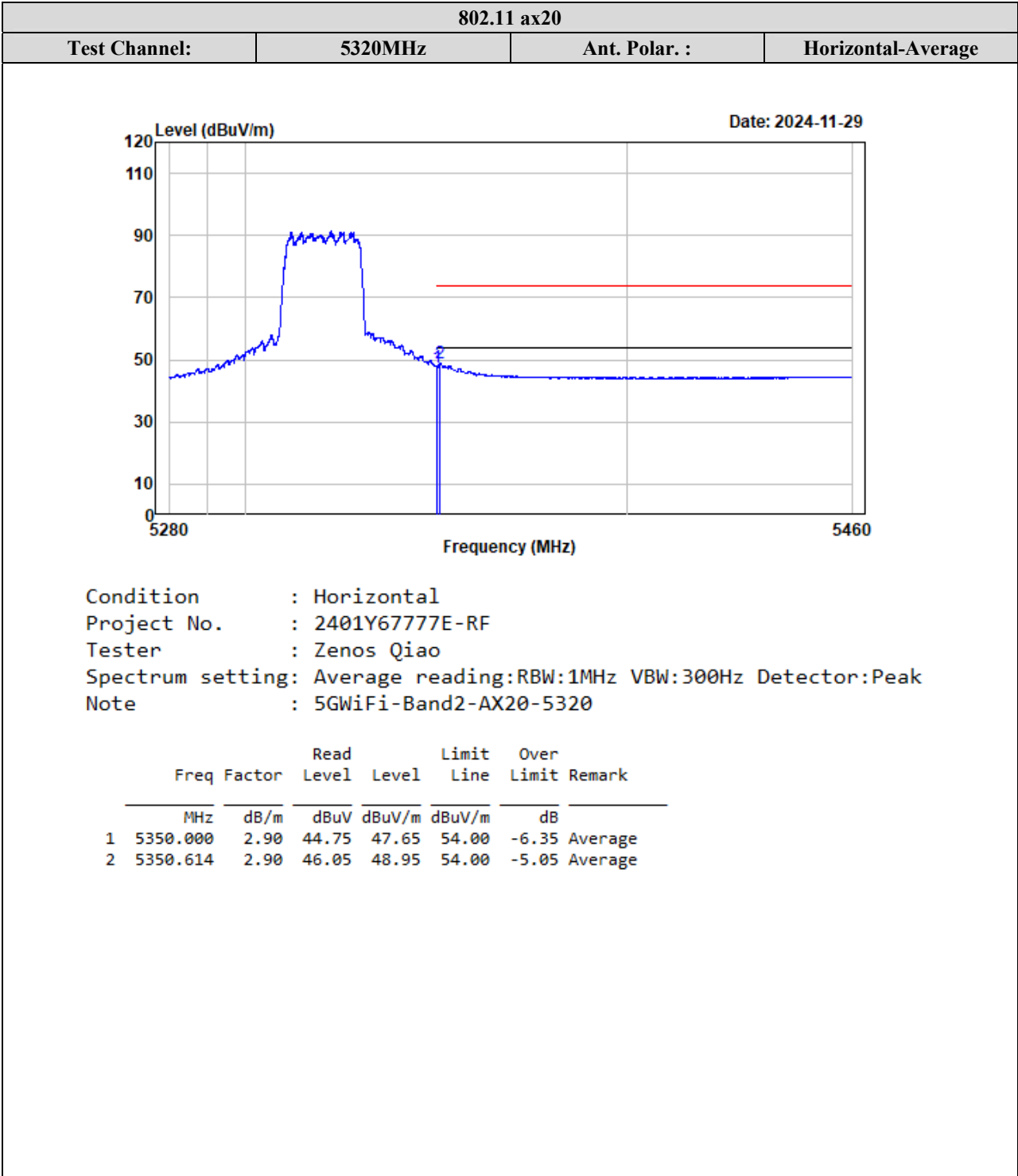


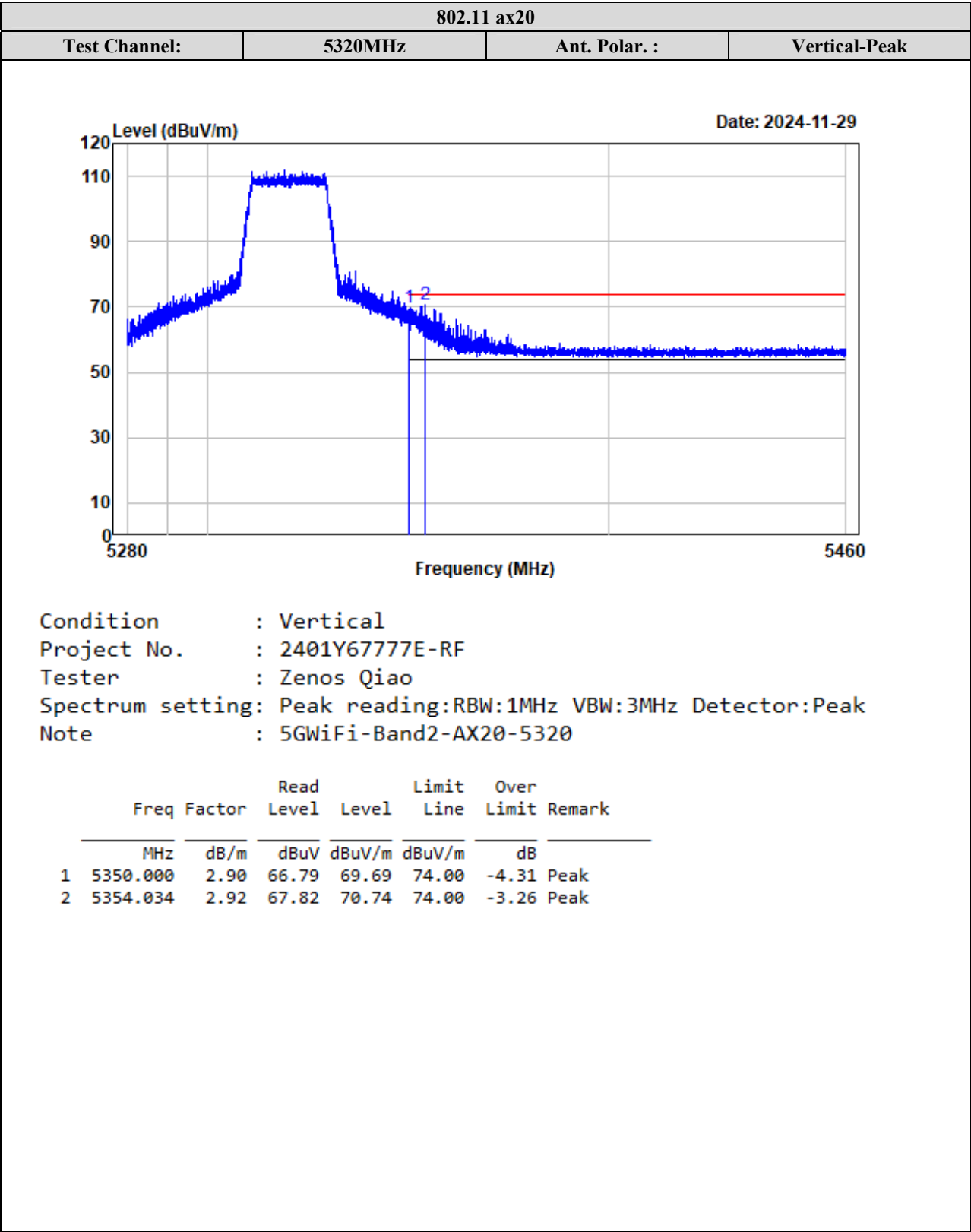


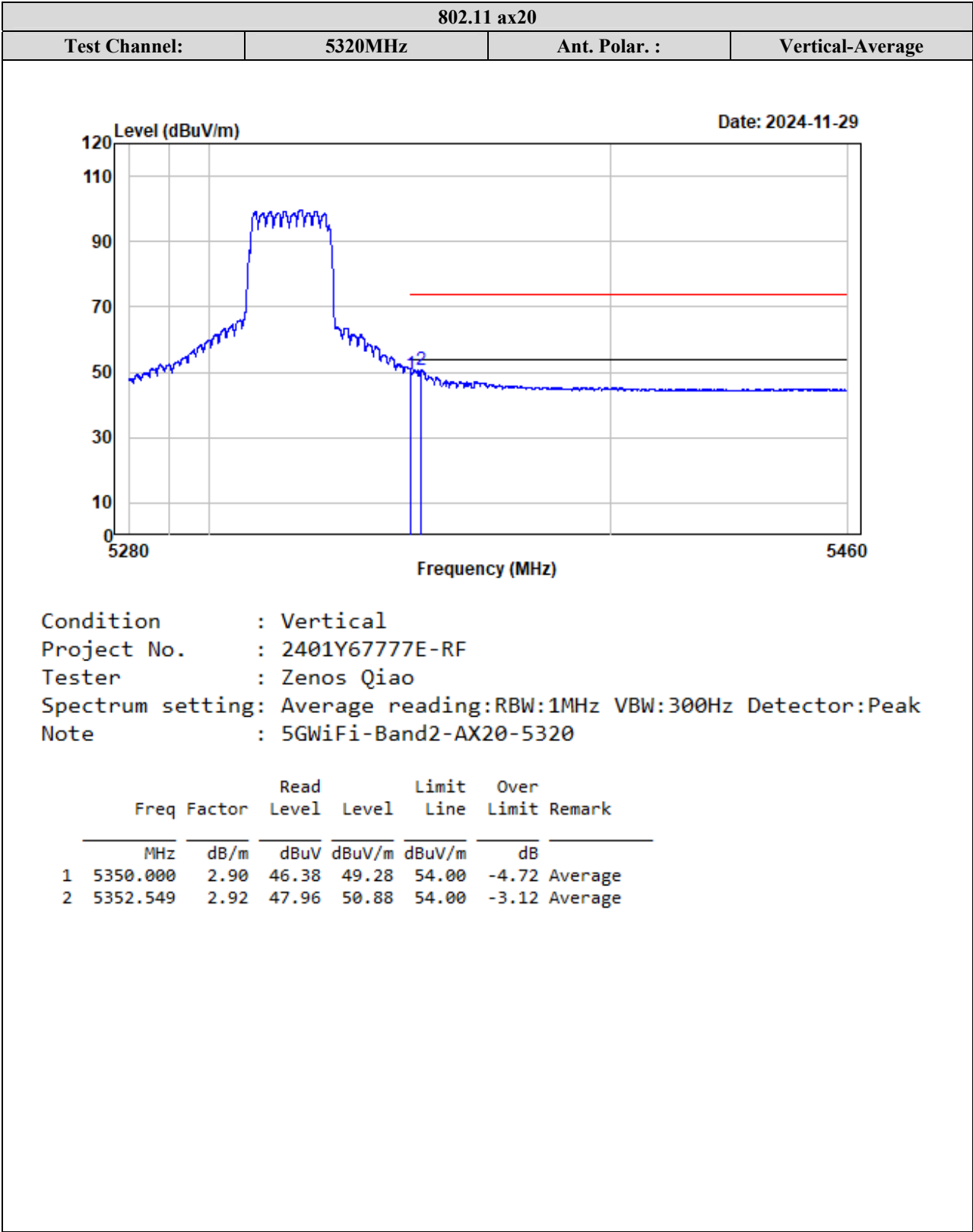


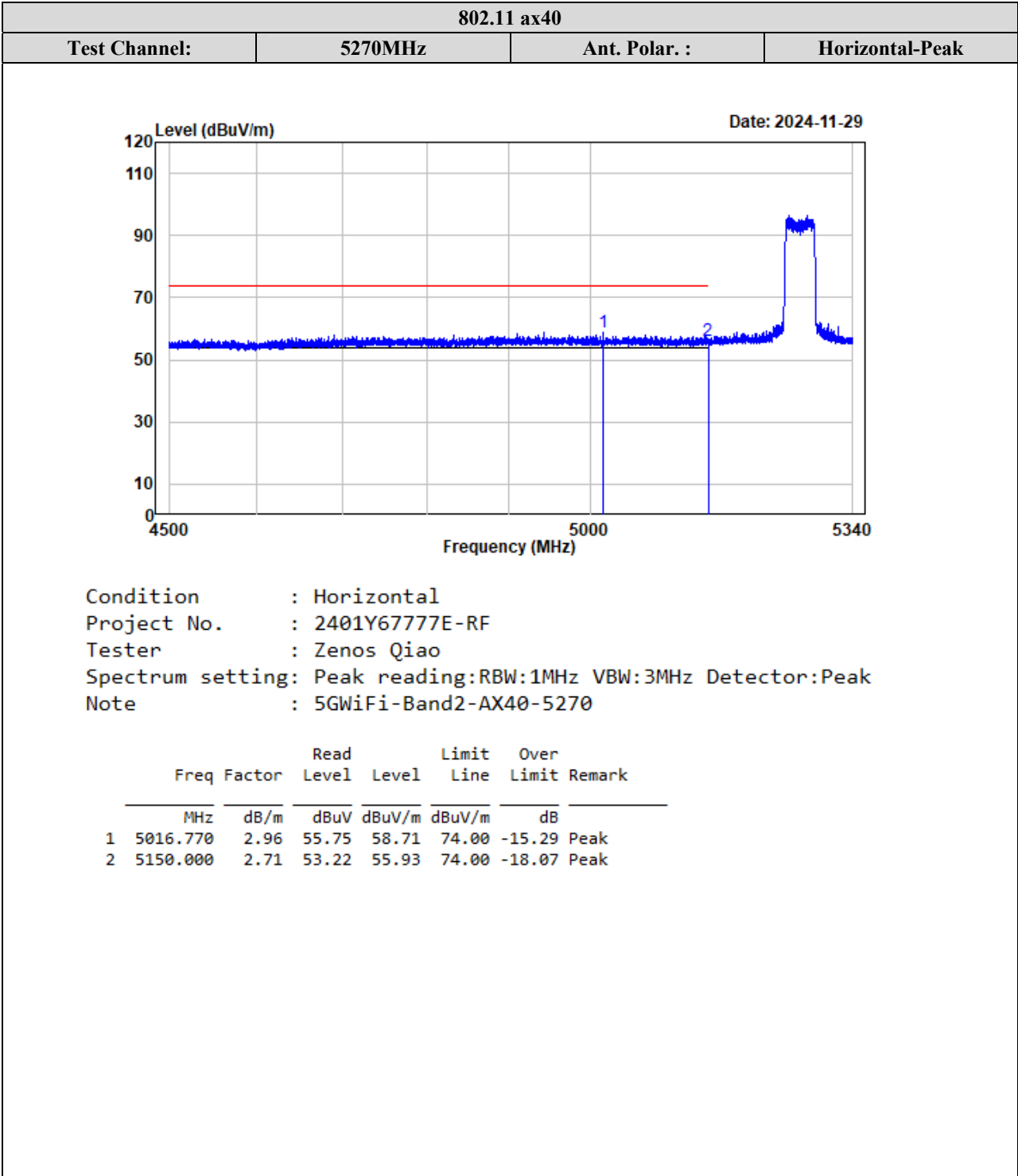


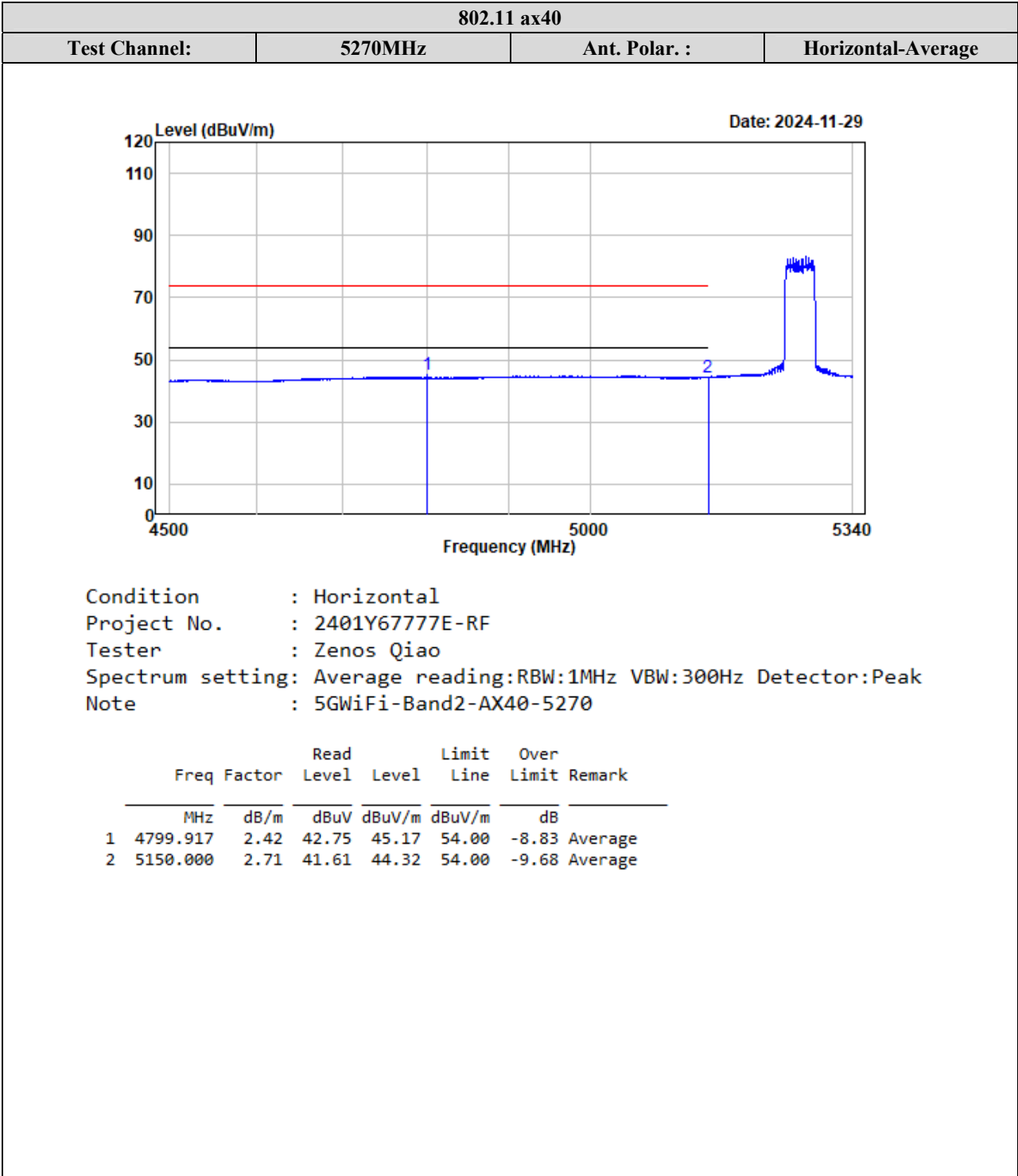


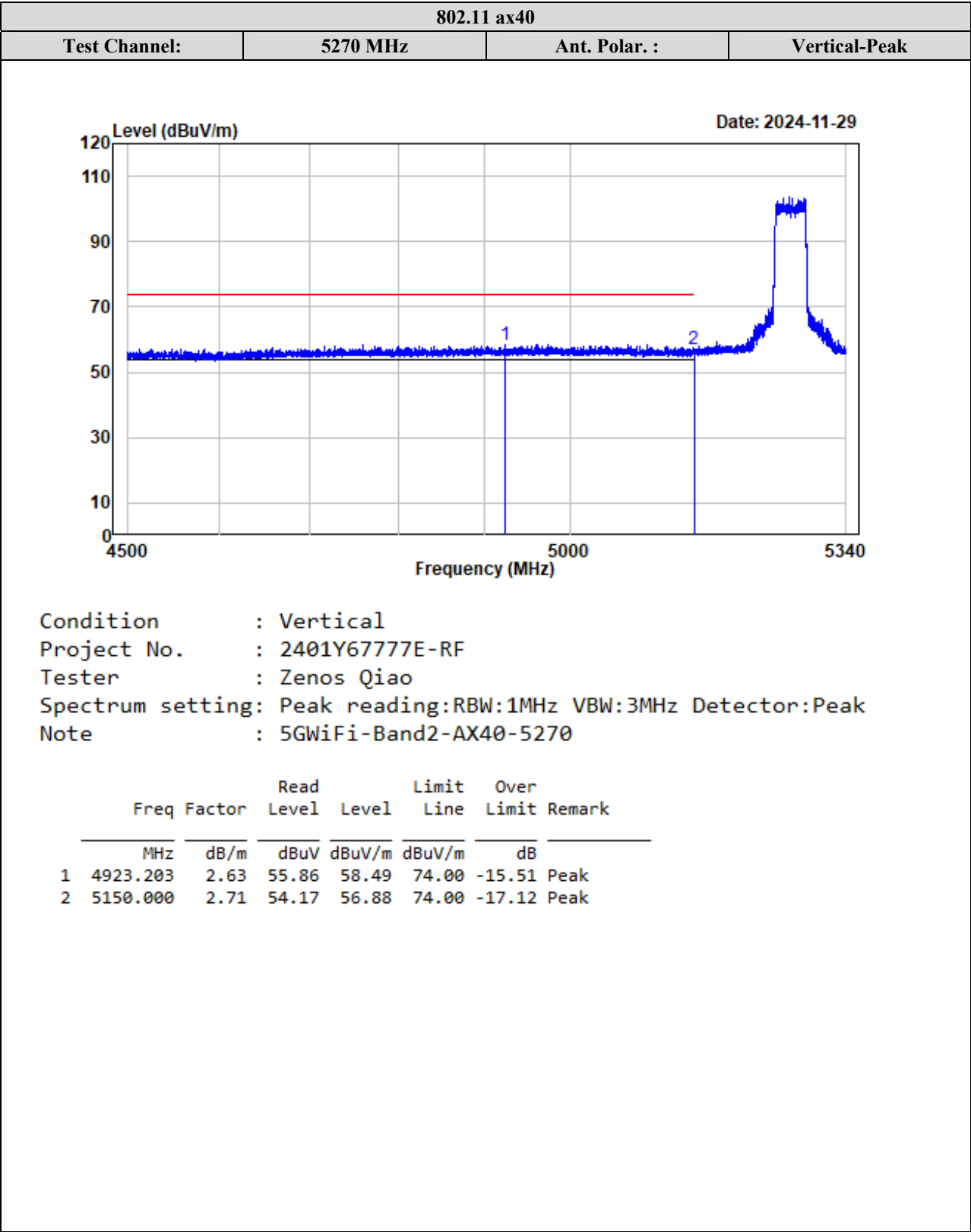


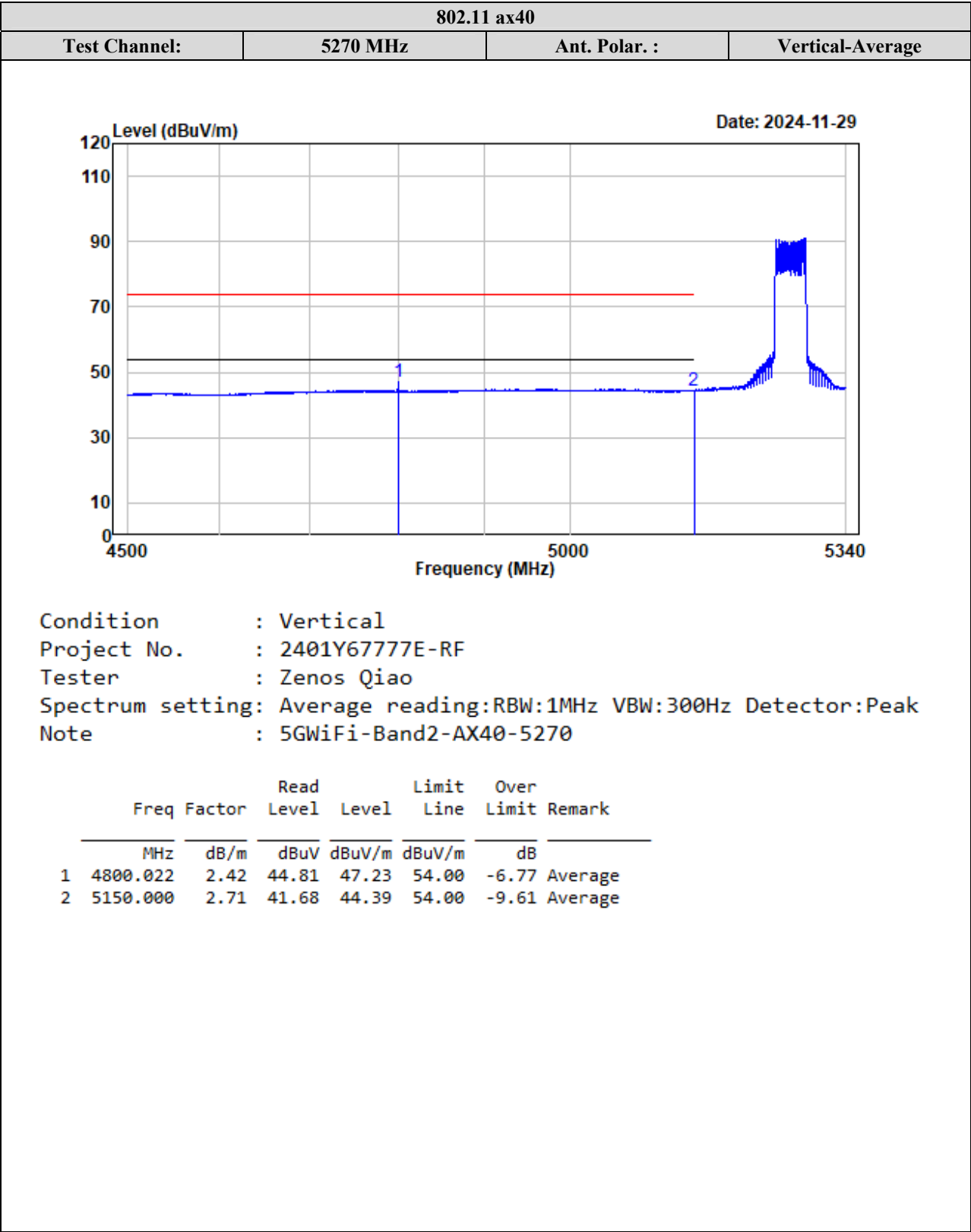


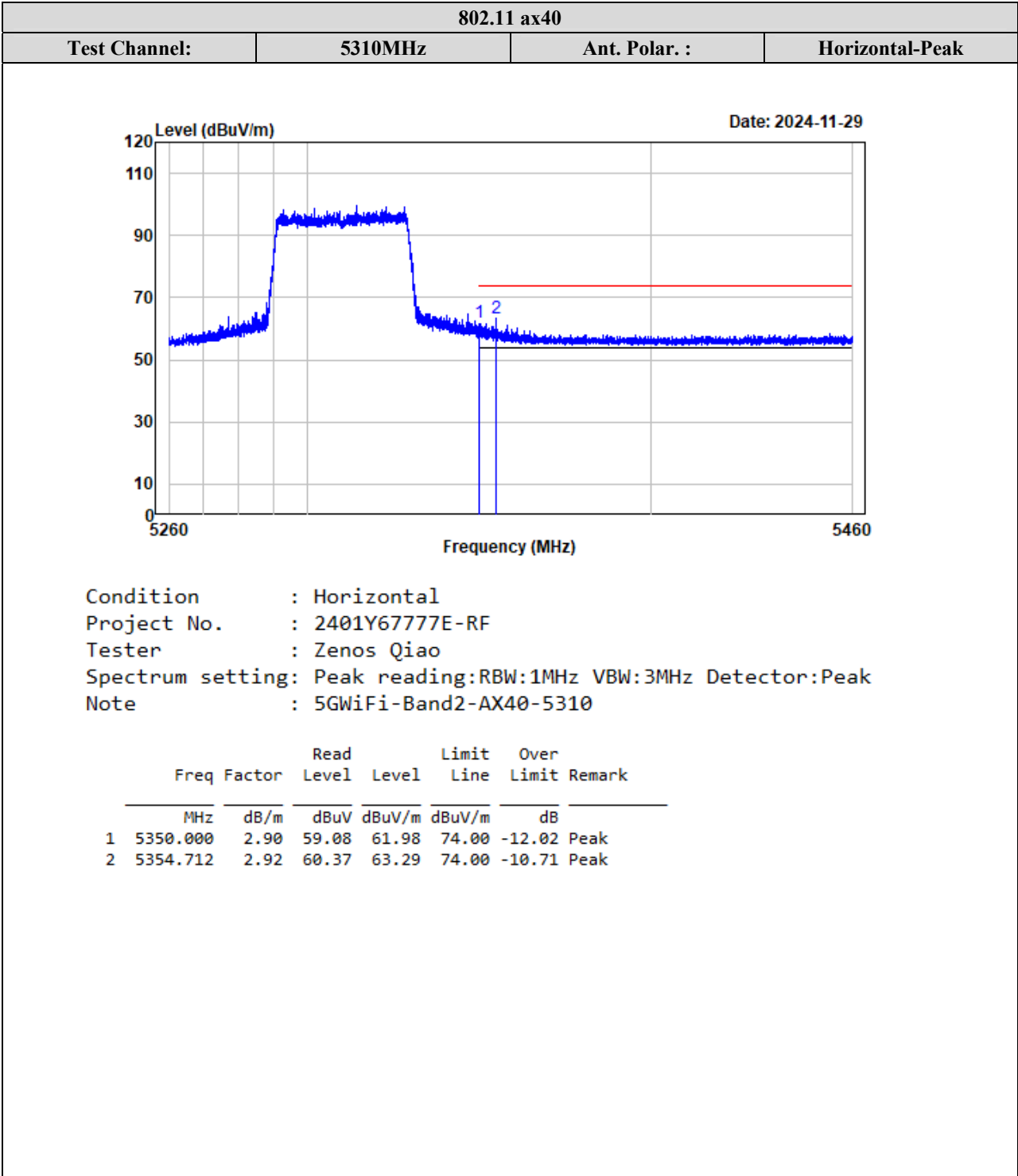


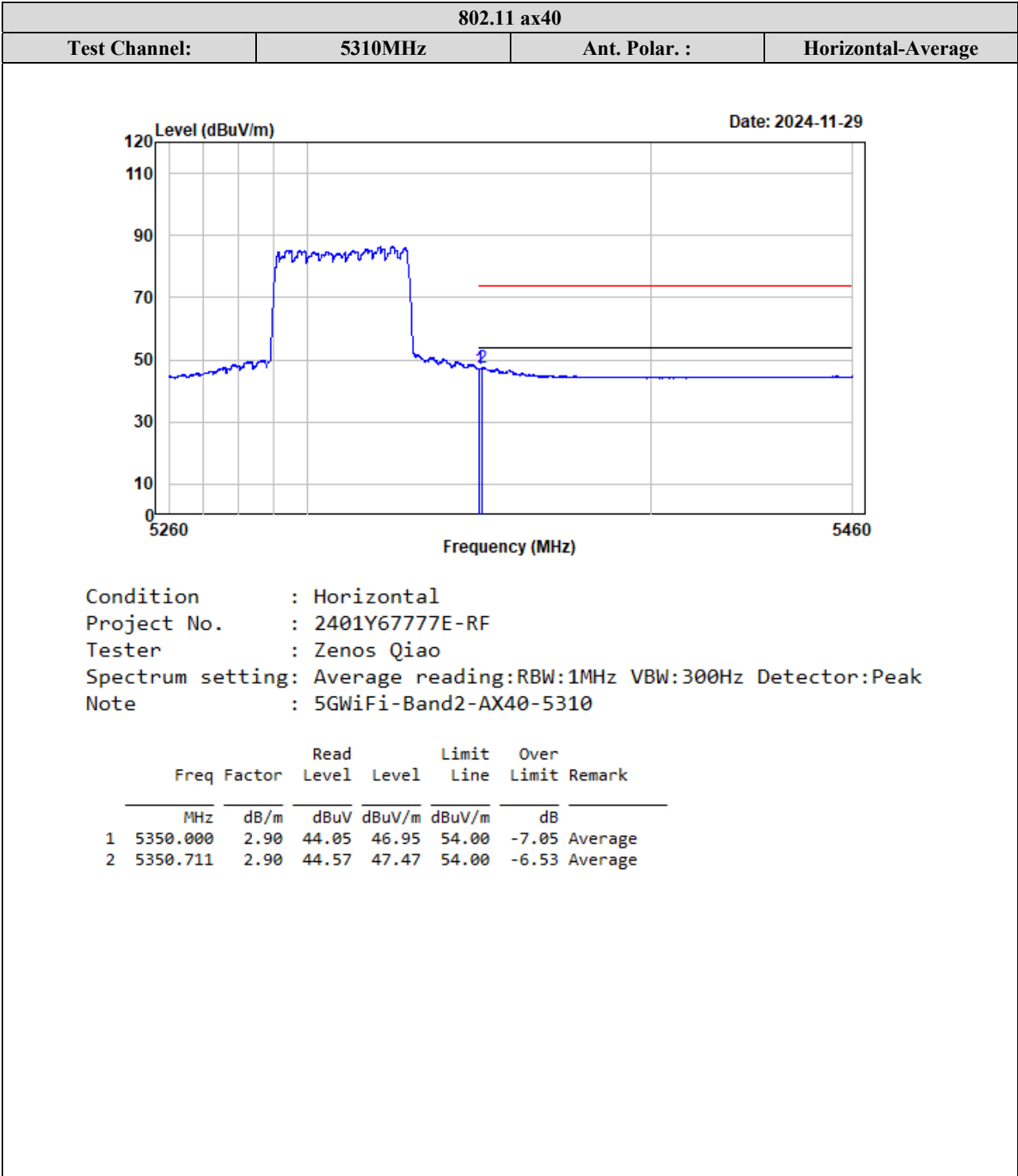


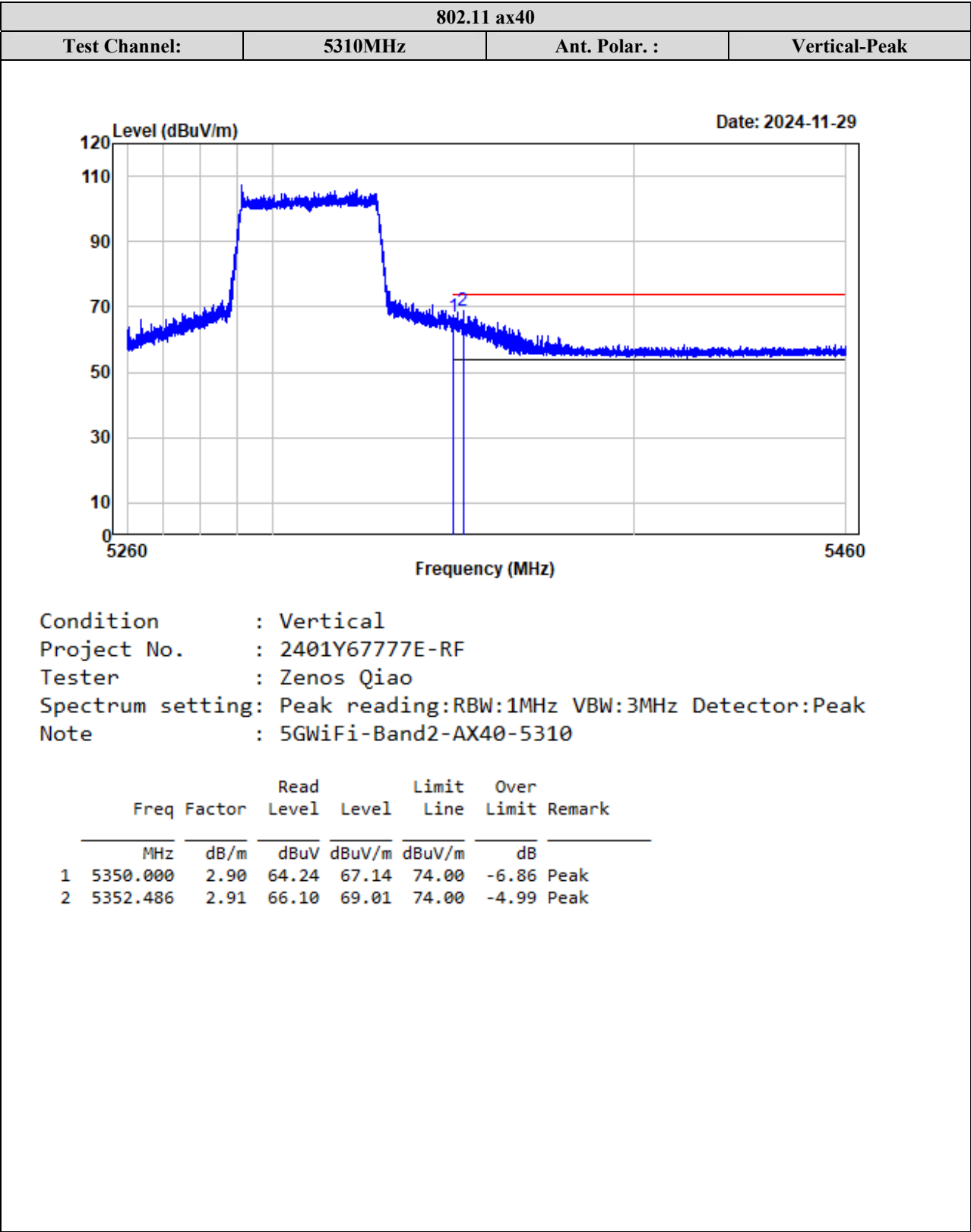


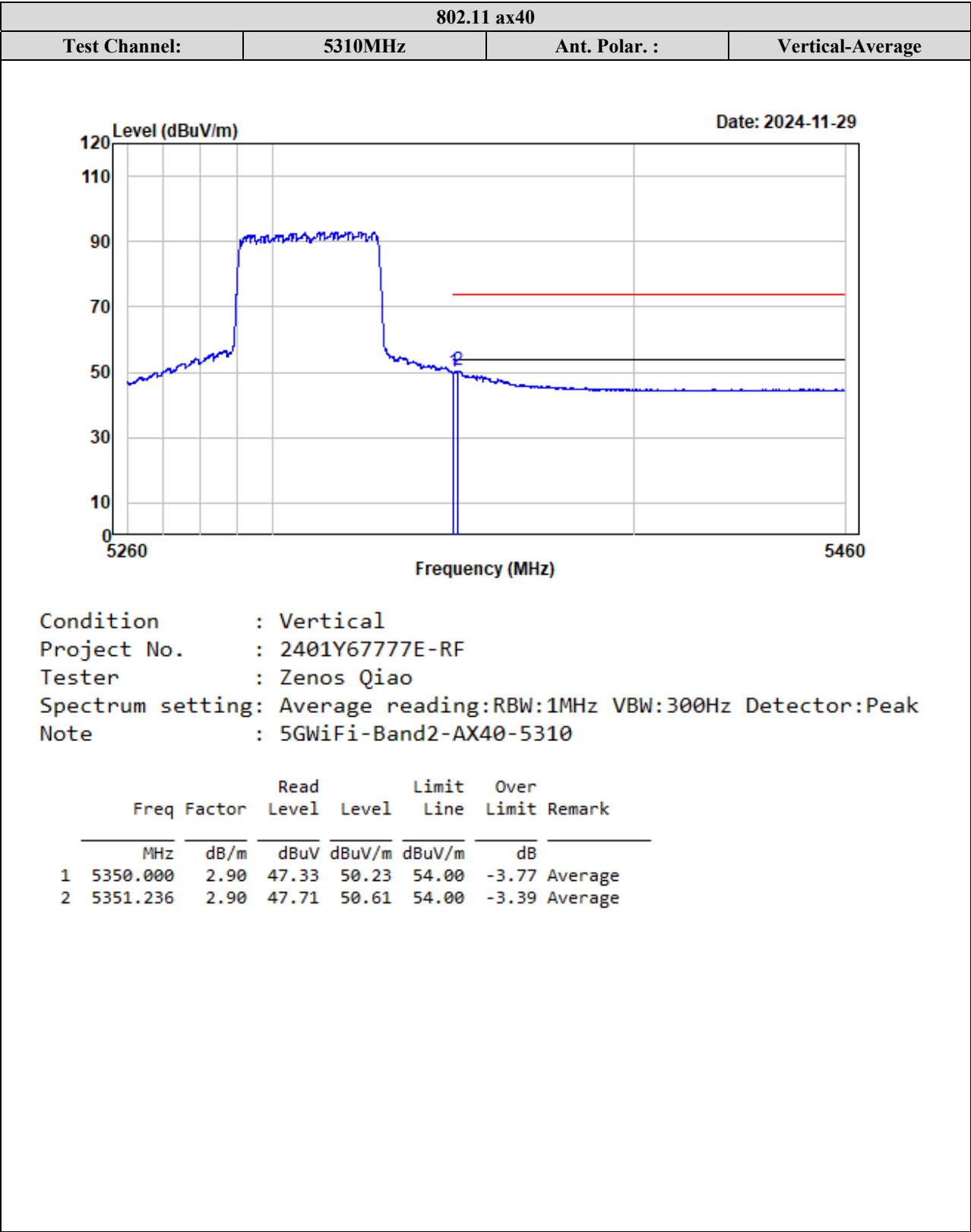




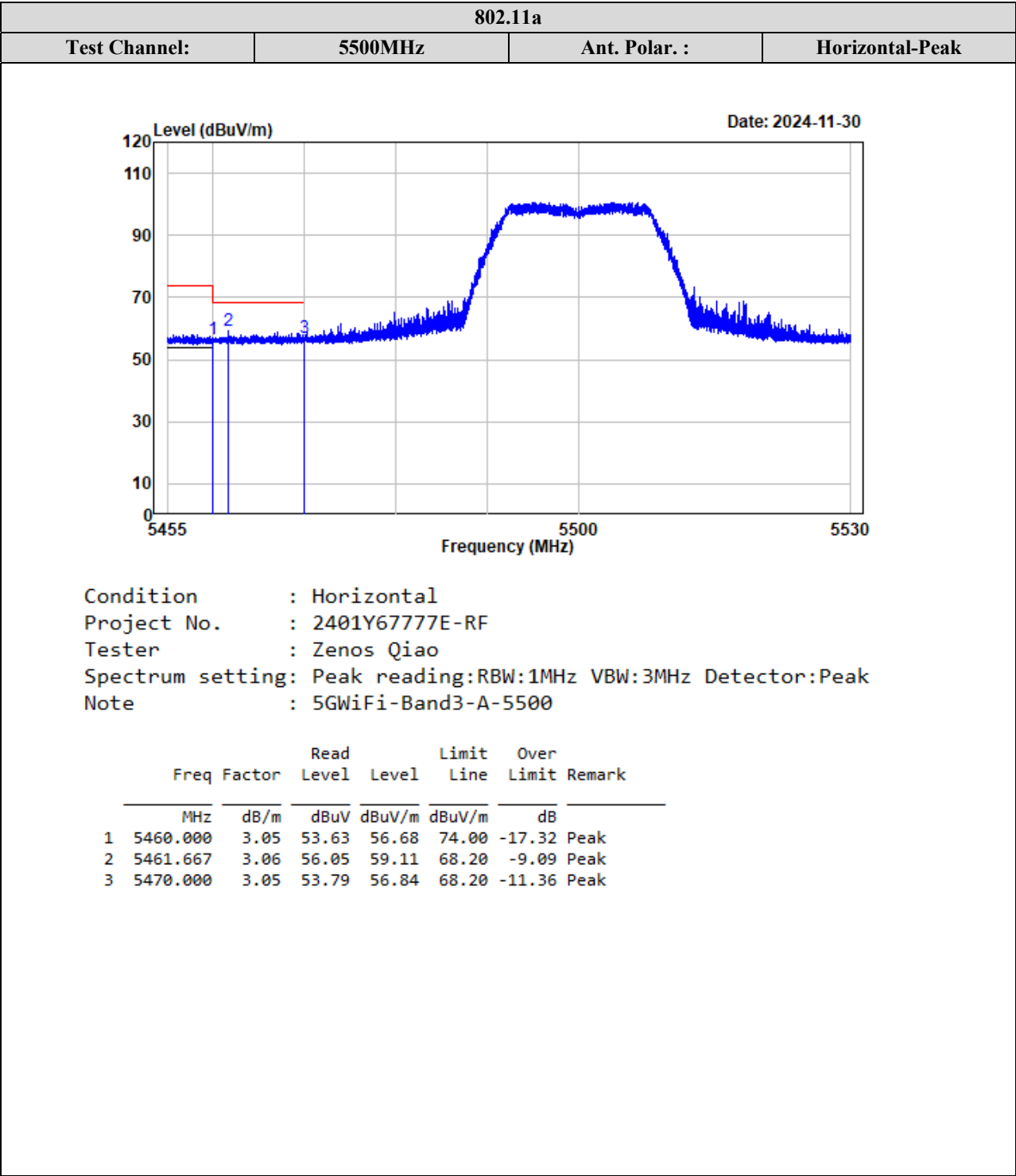


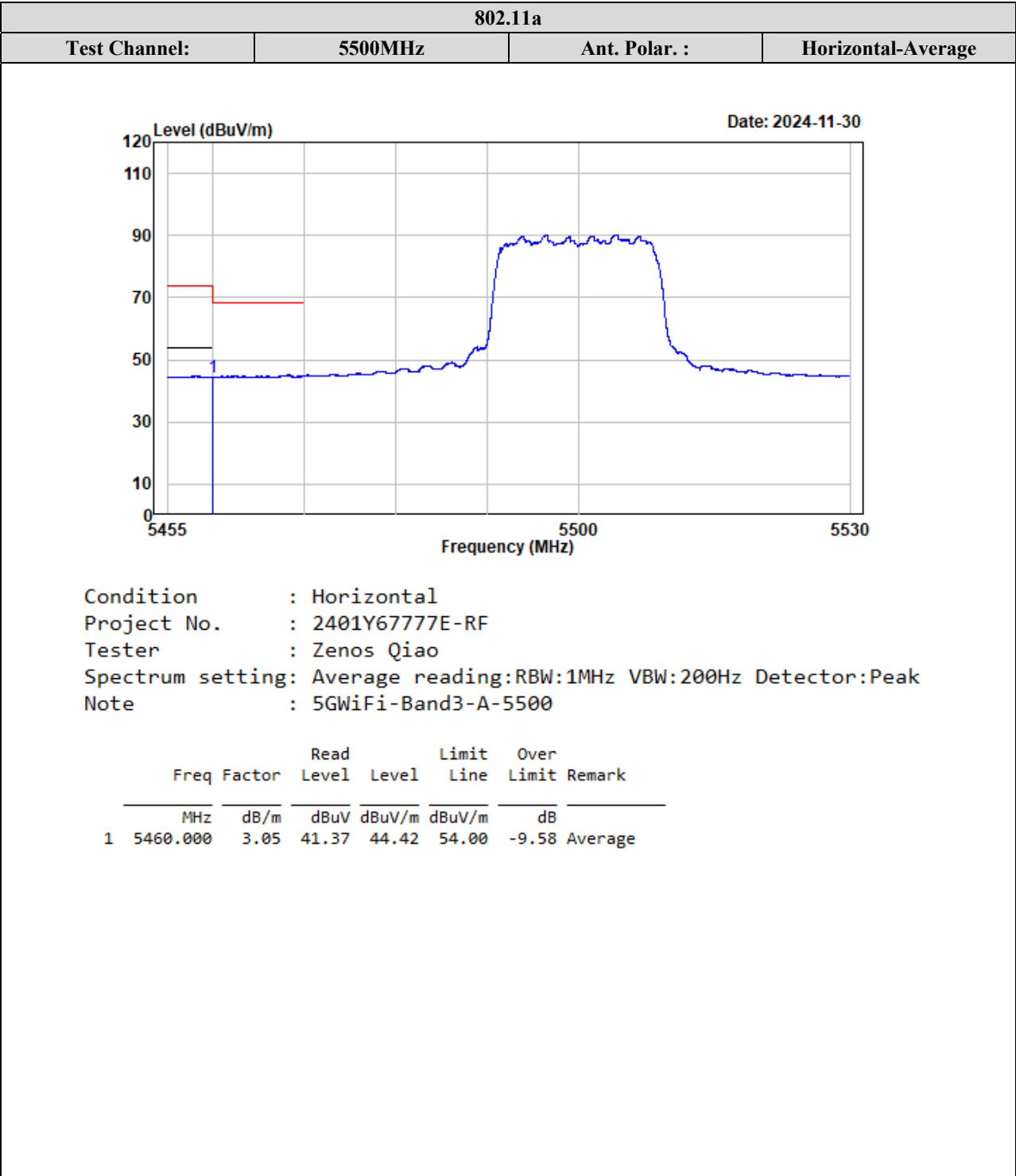


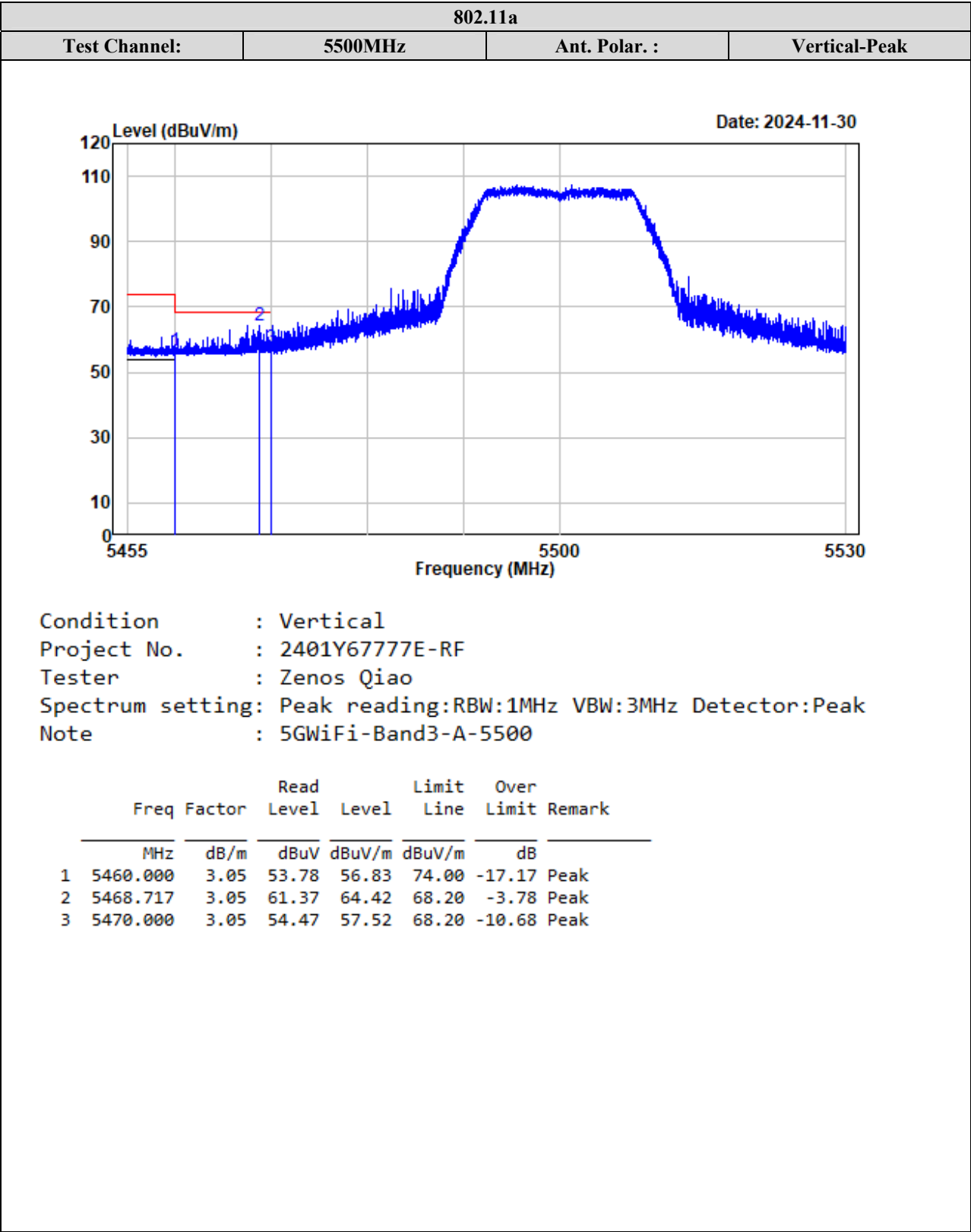


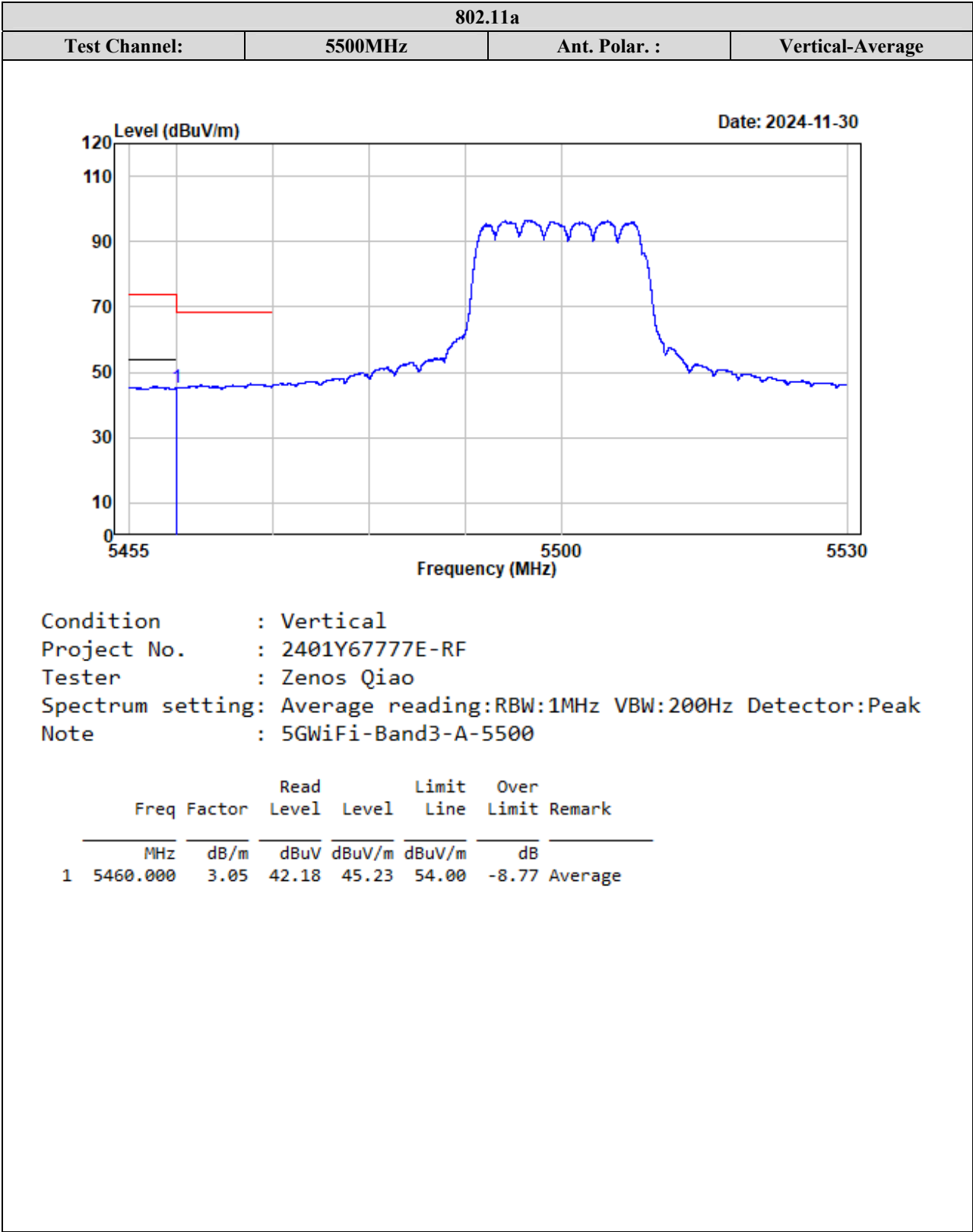


5470-5725MHz:





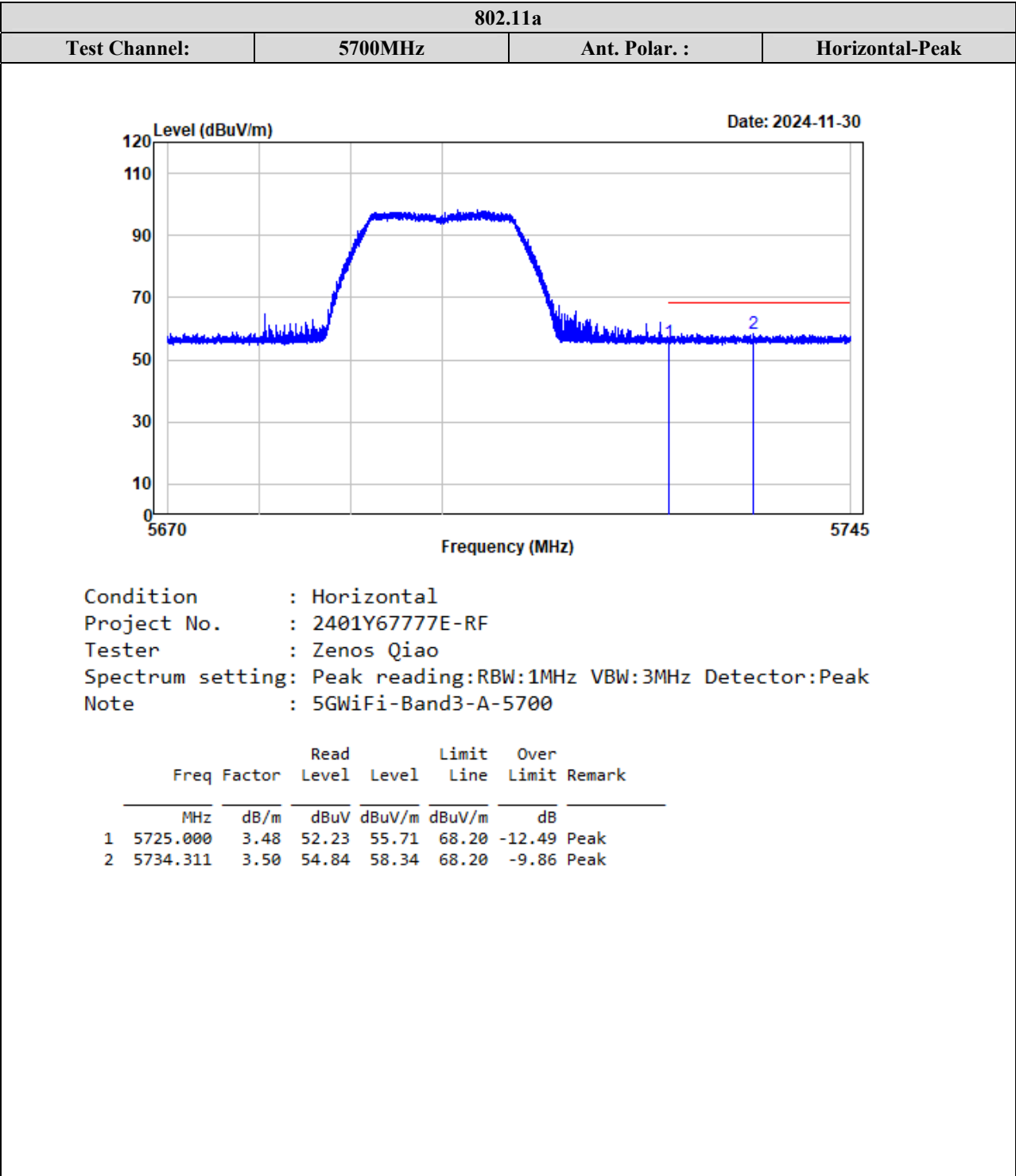


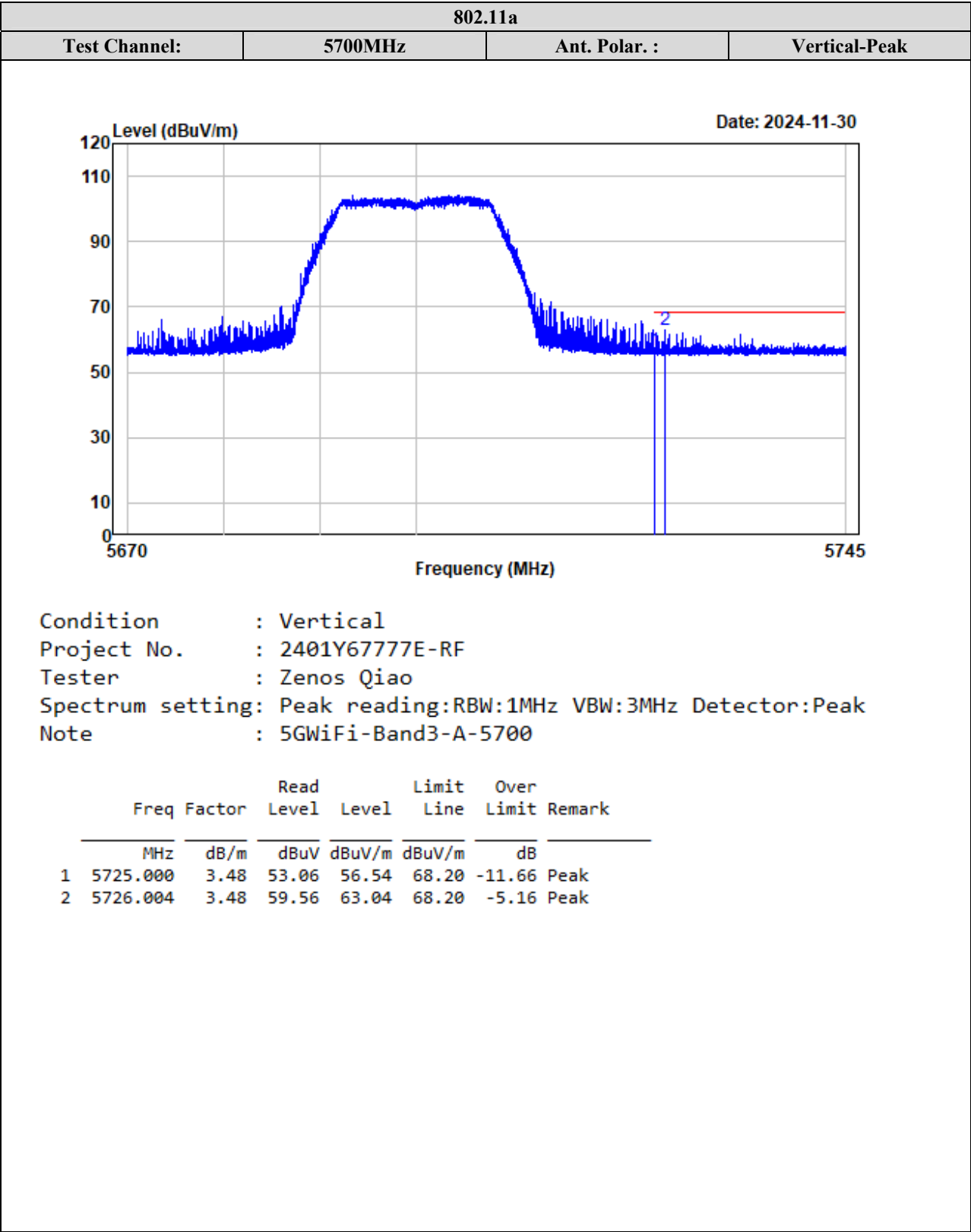


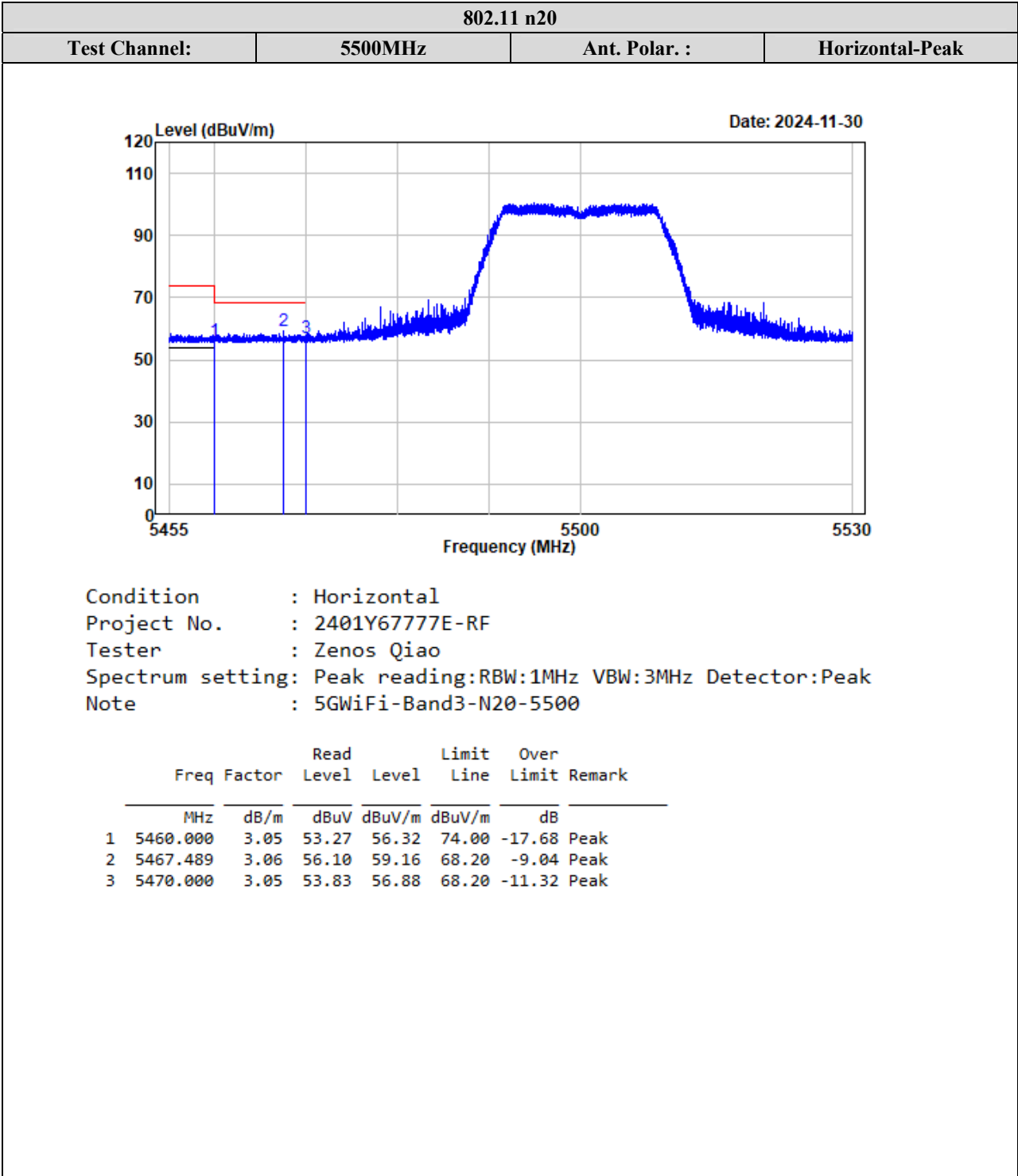
TR-EM-RF015

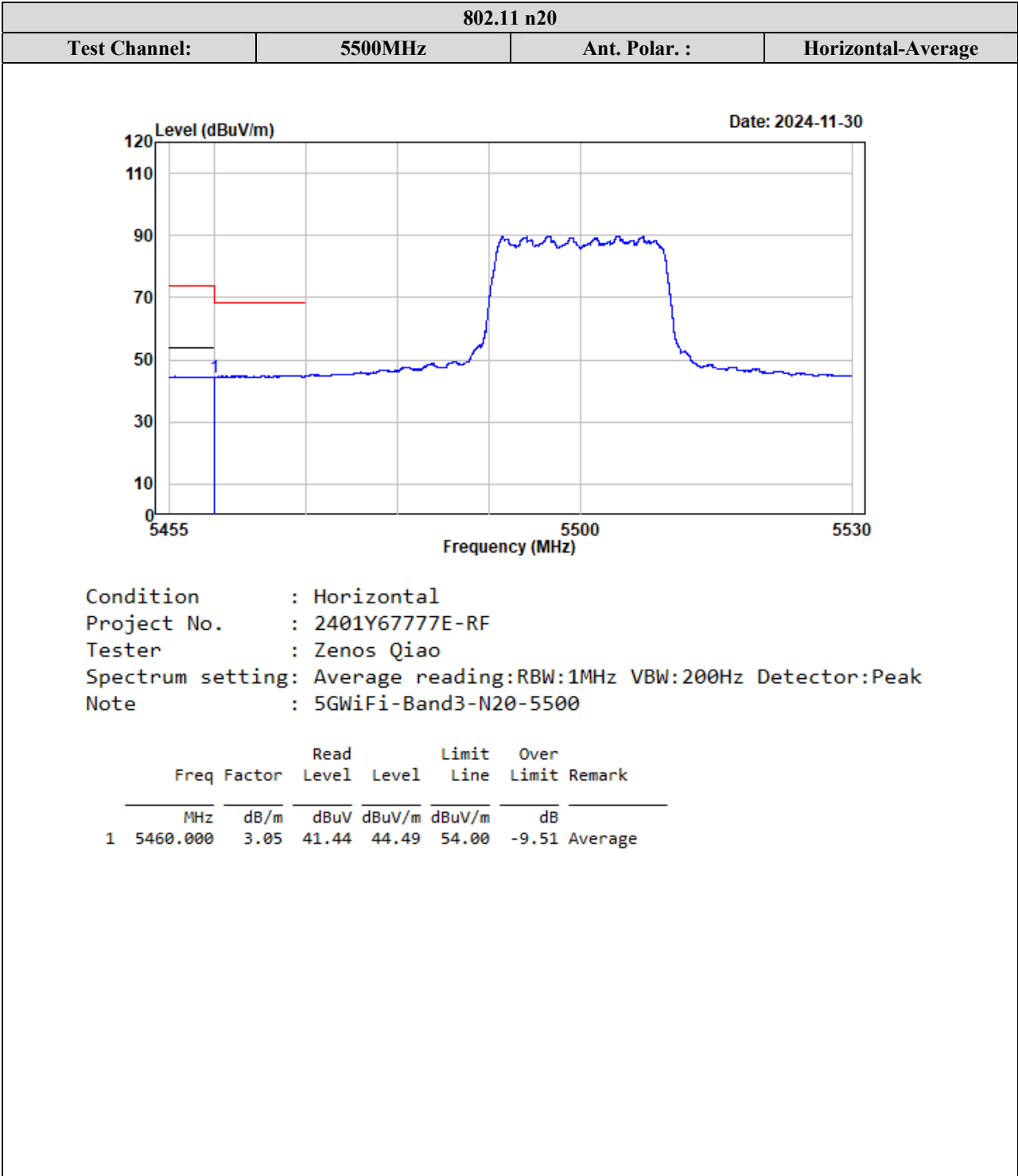
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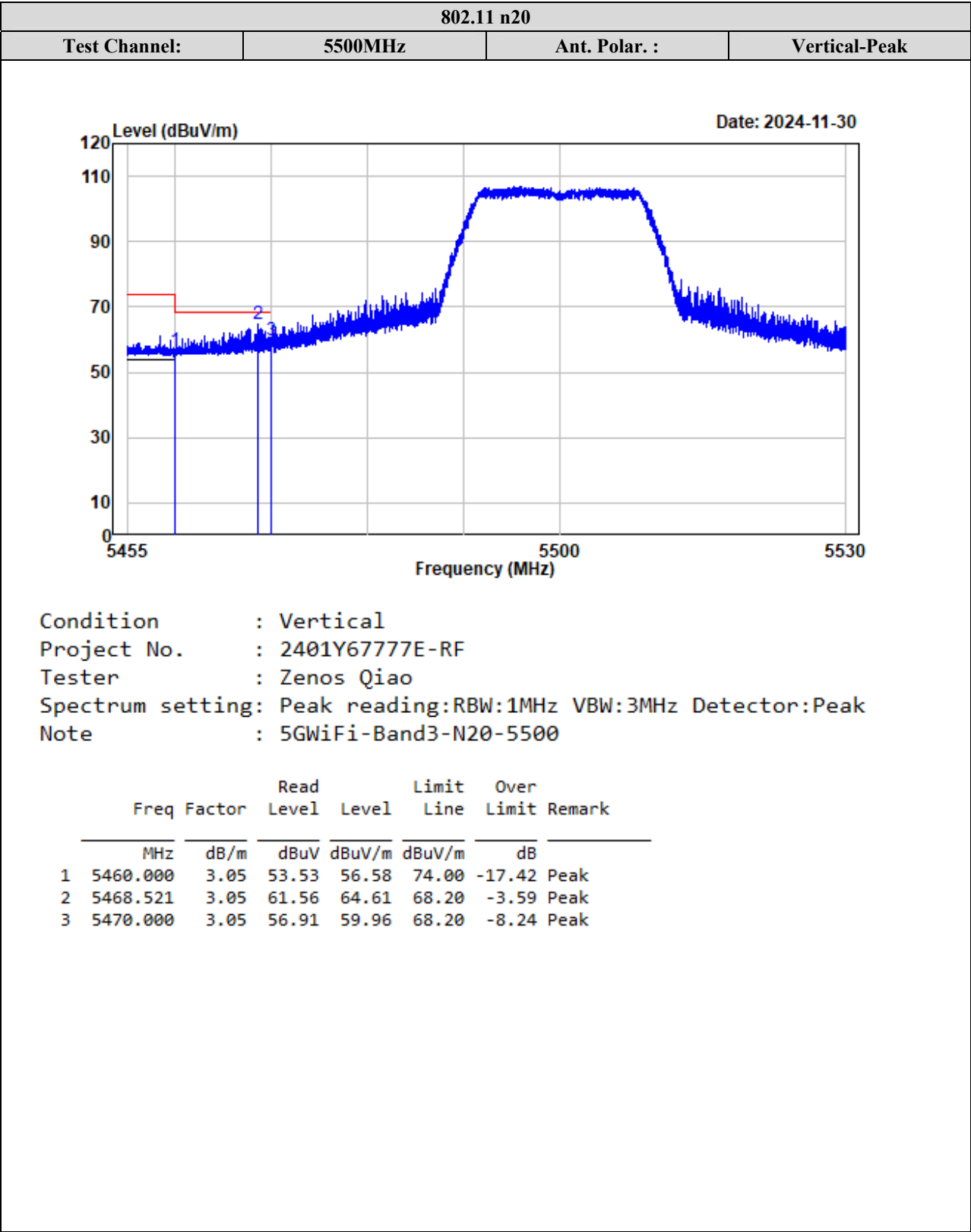
Version 3.0

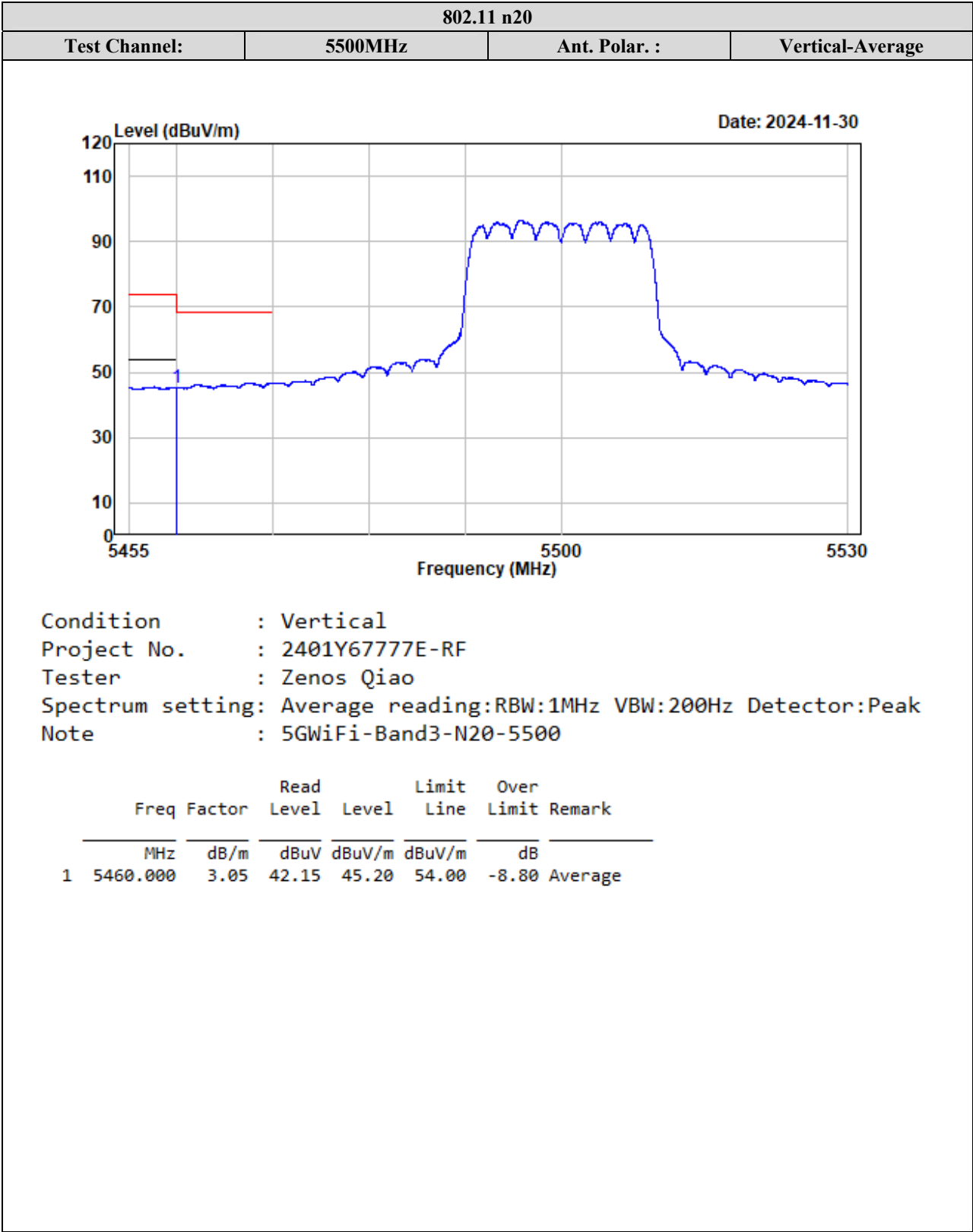


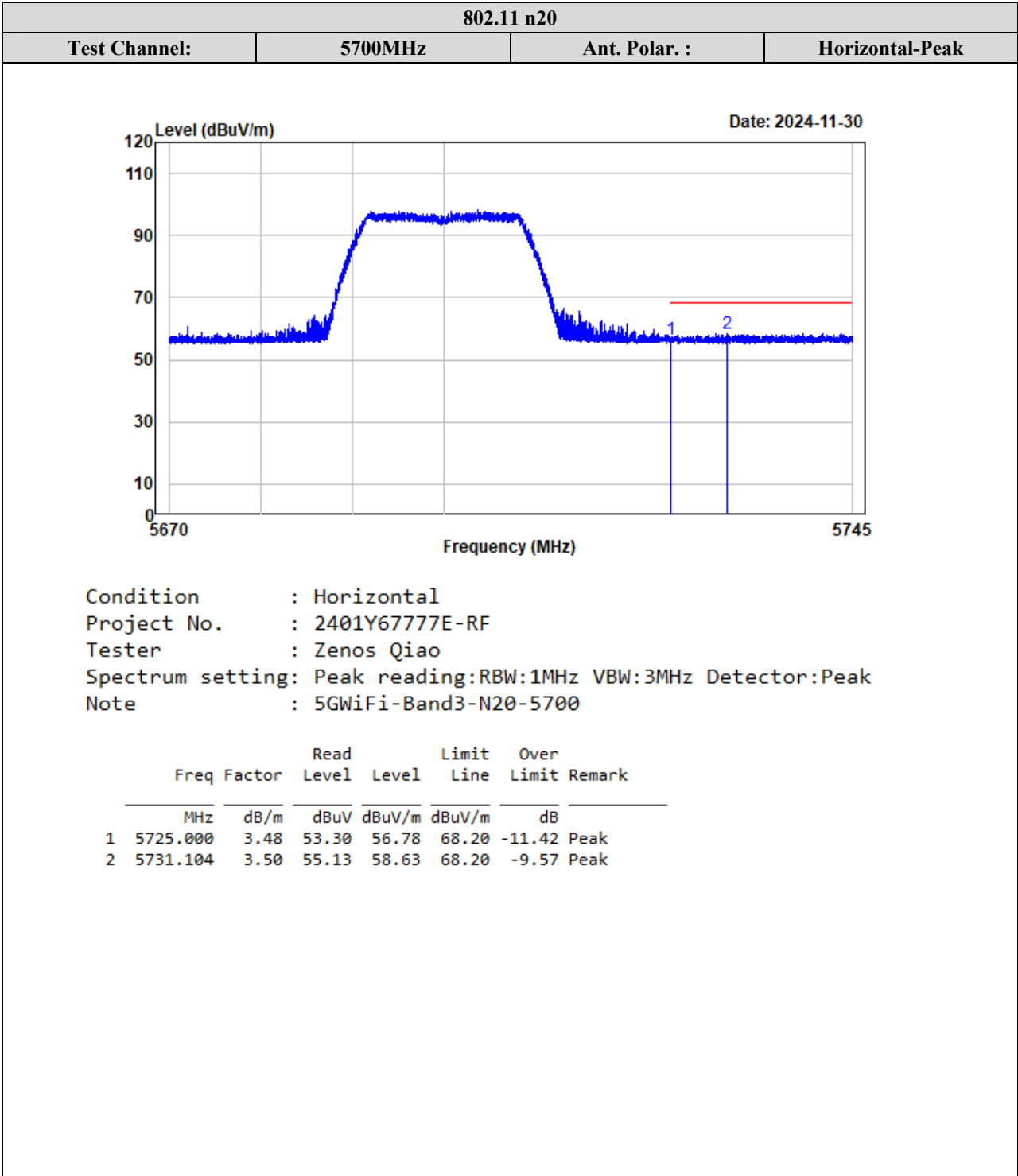


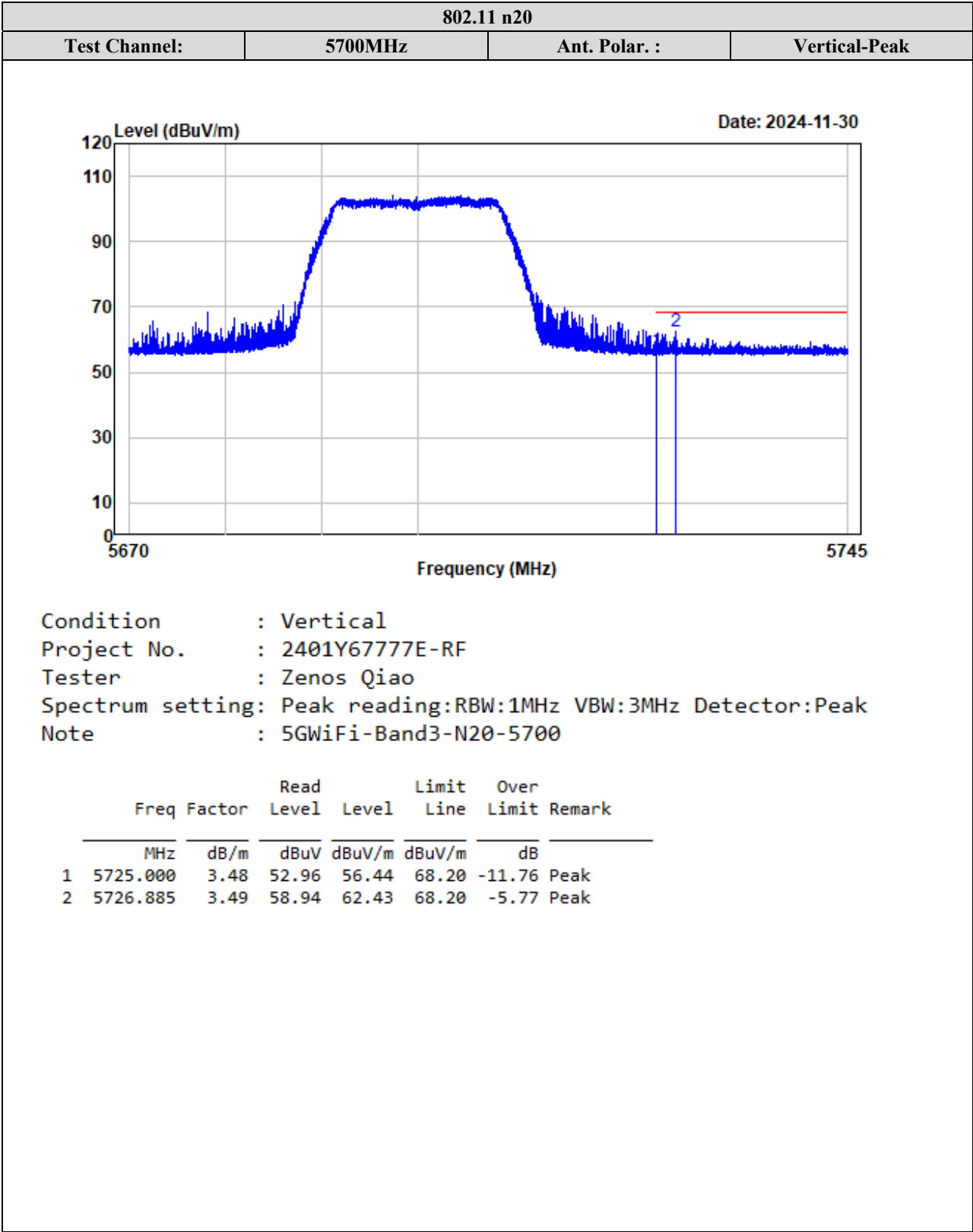


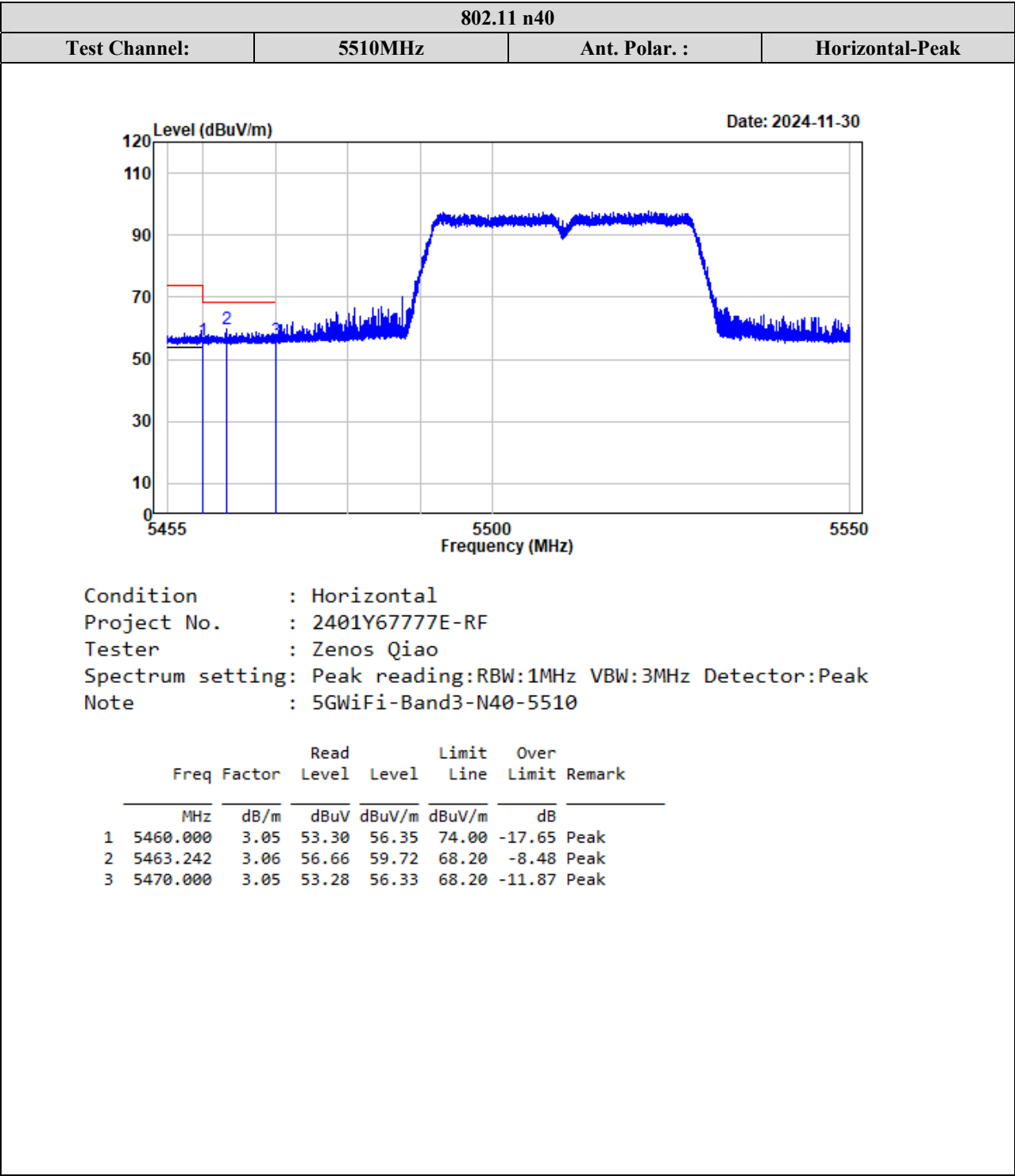


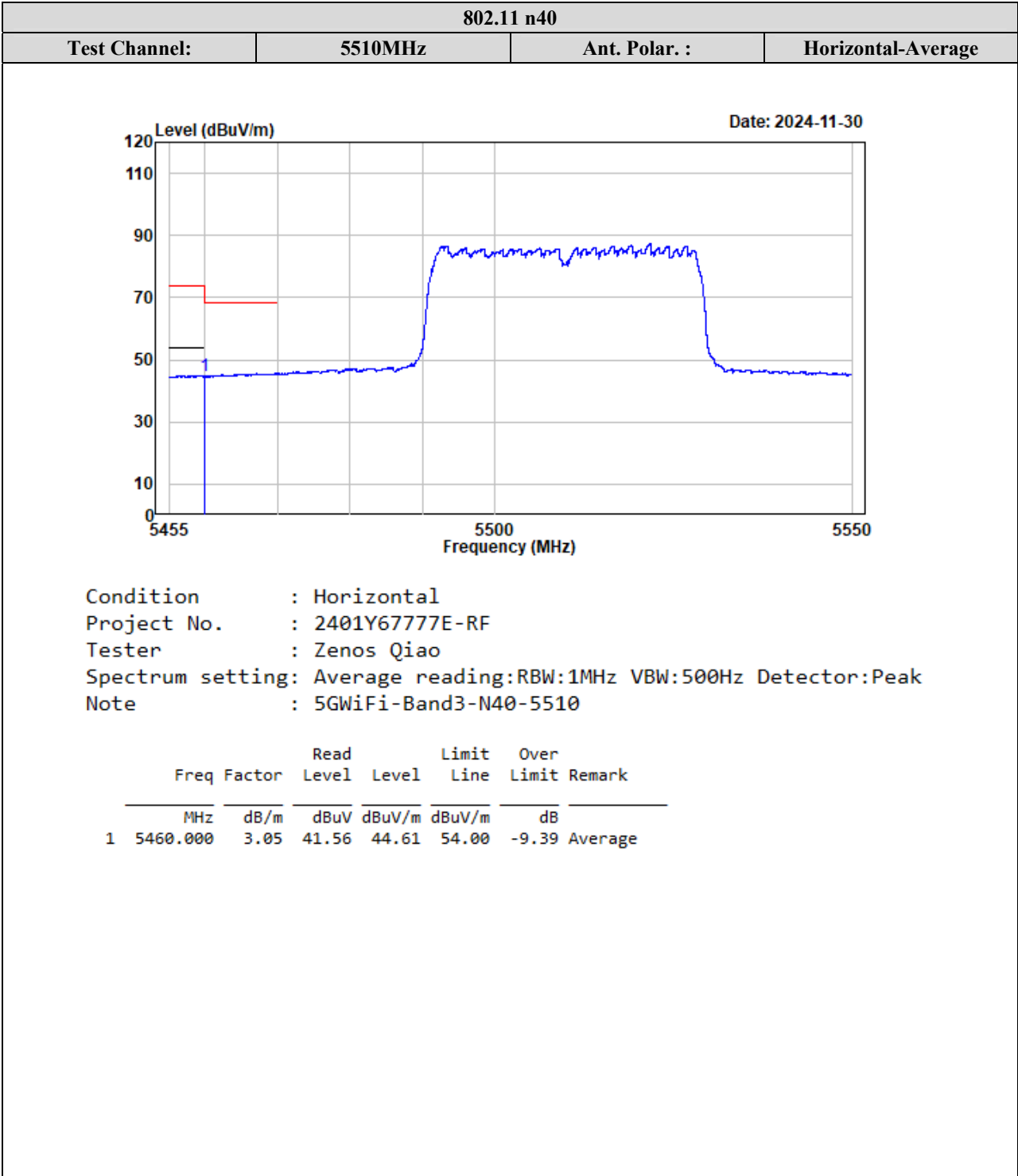


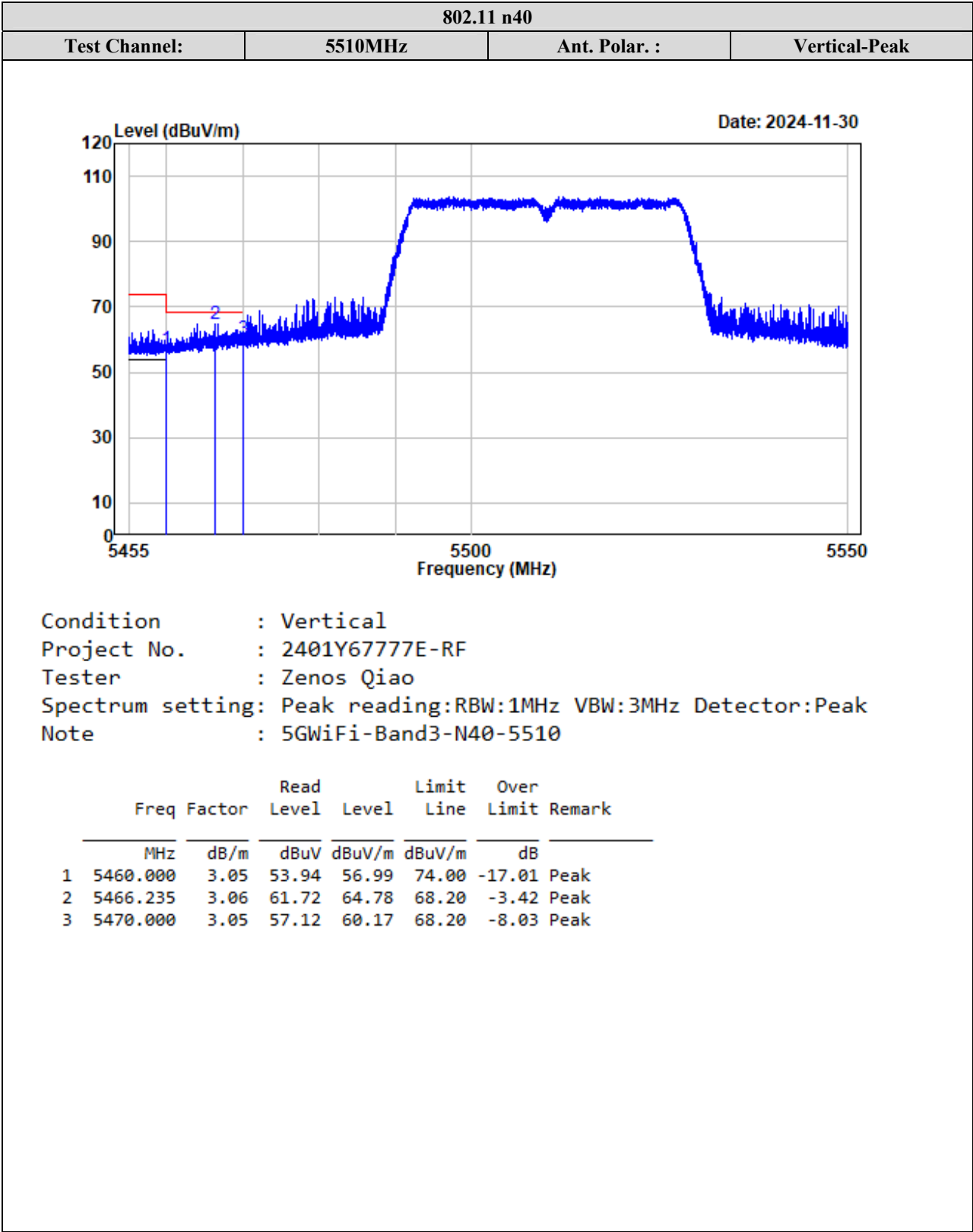


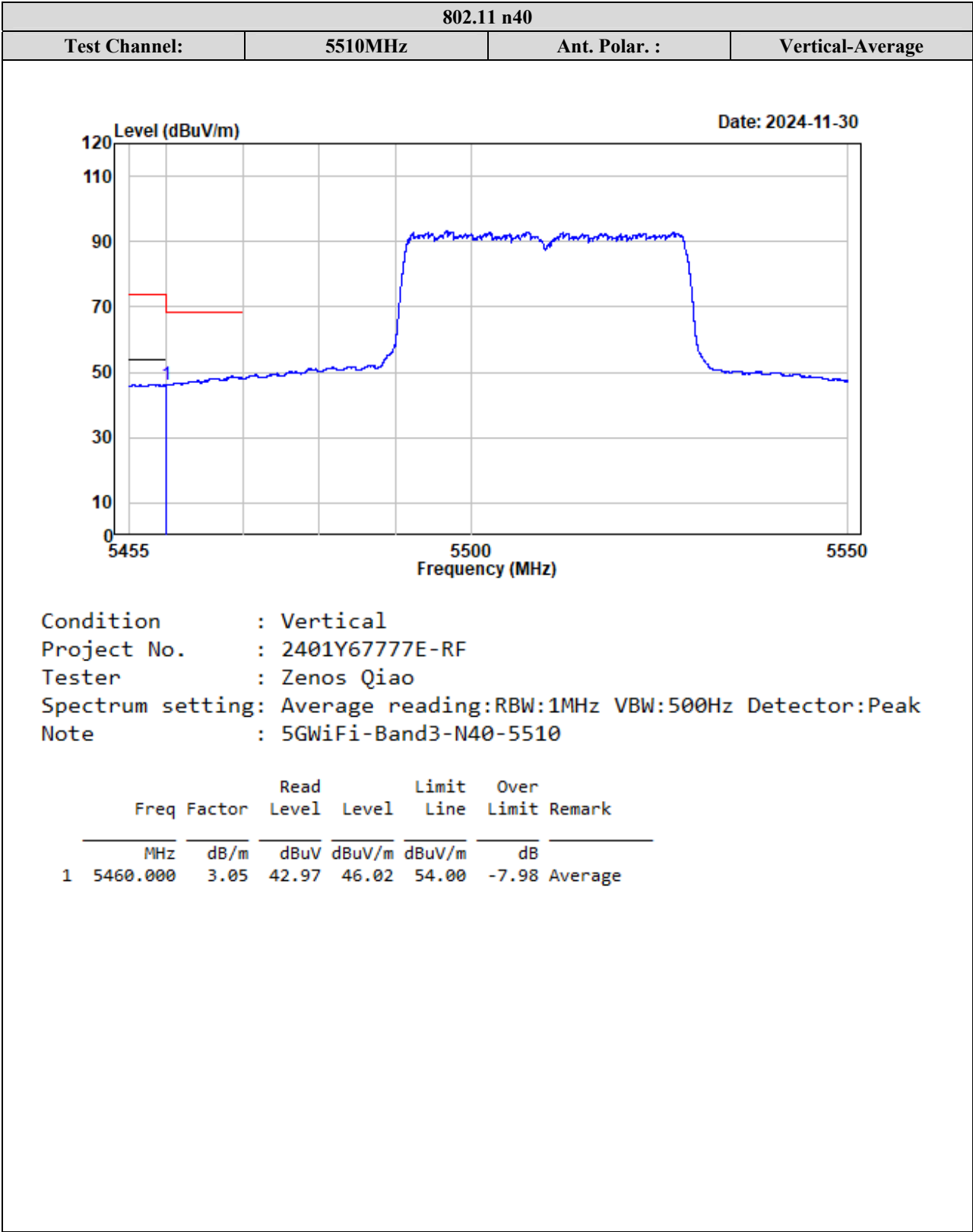


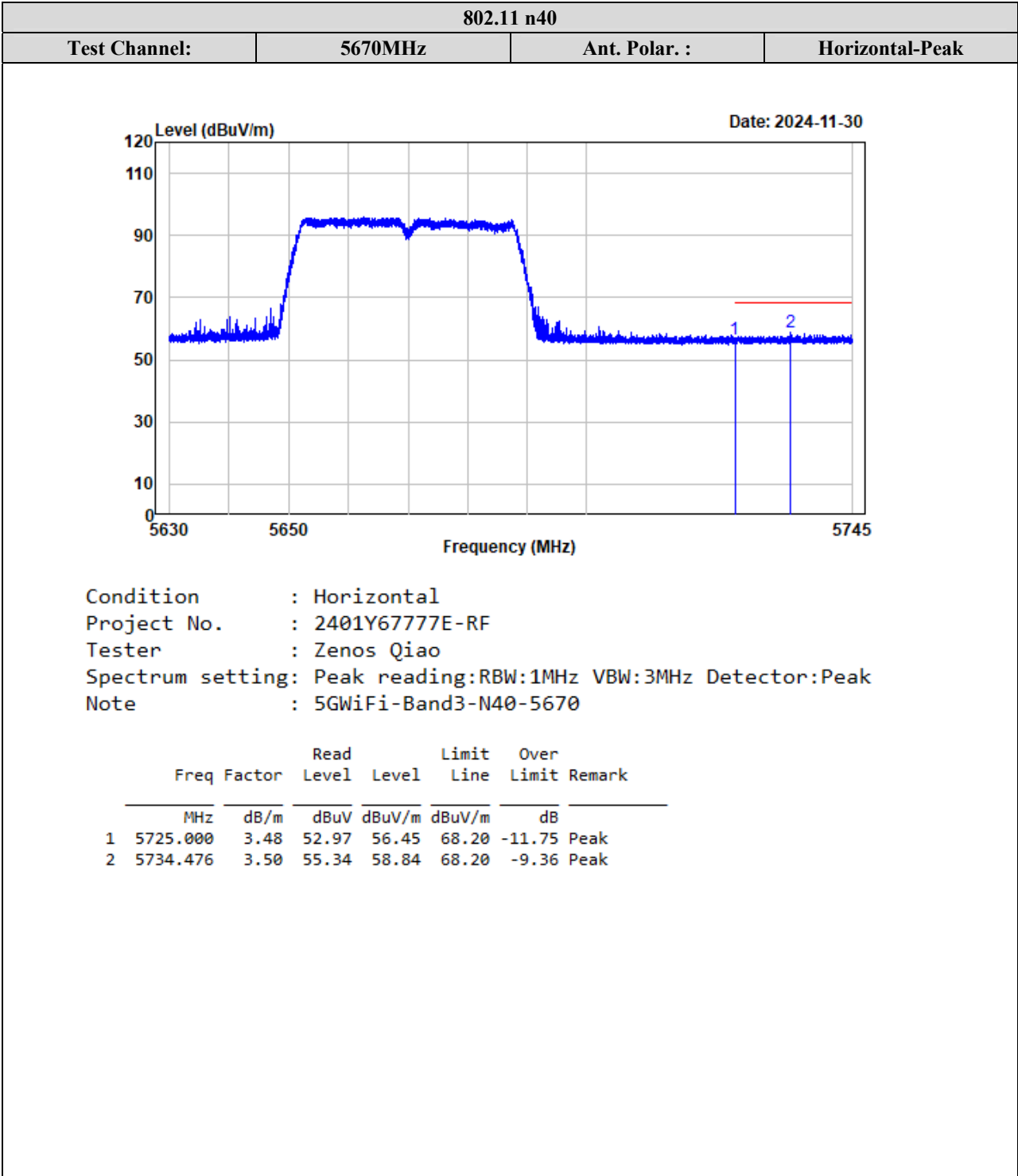


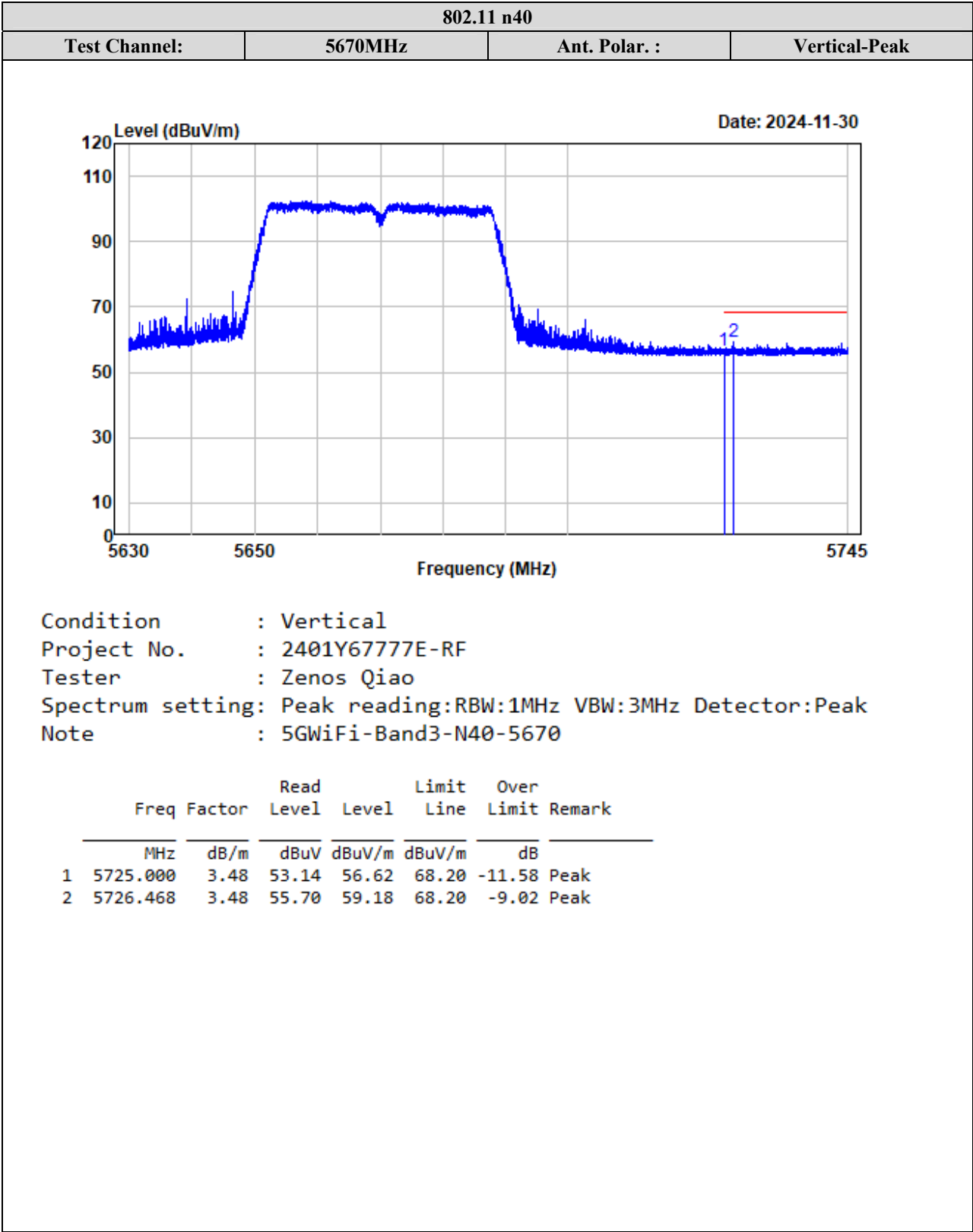


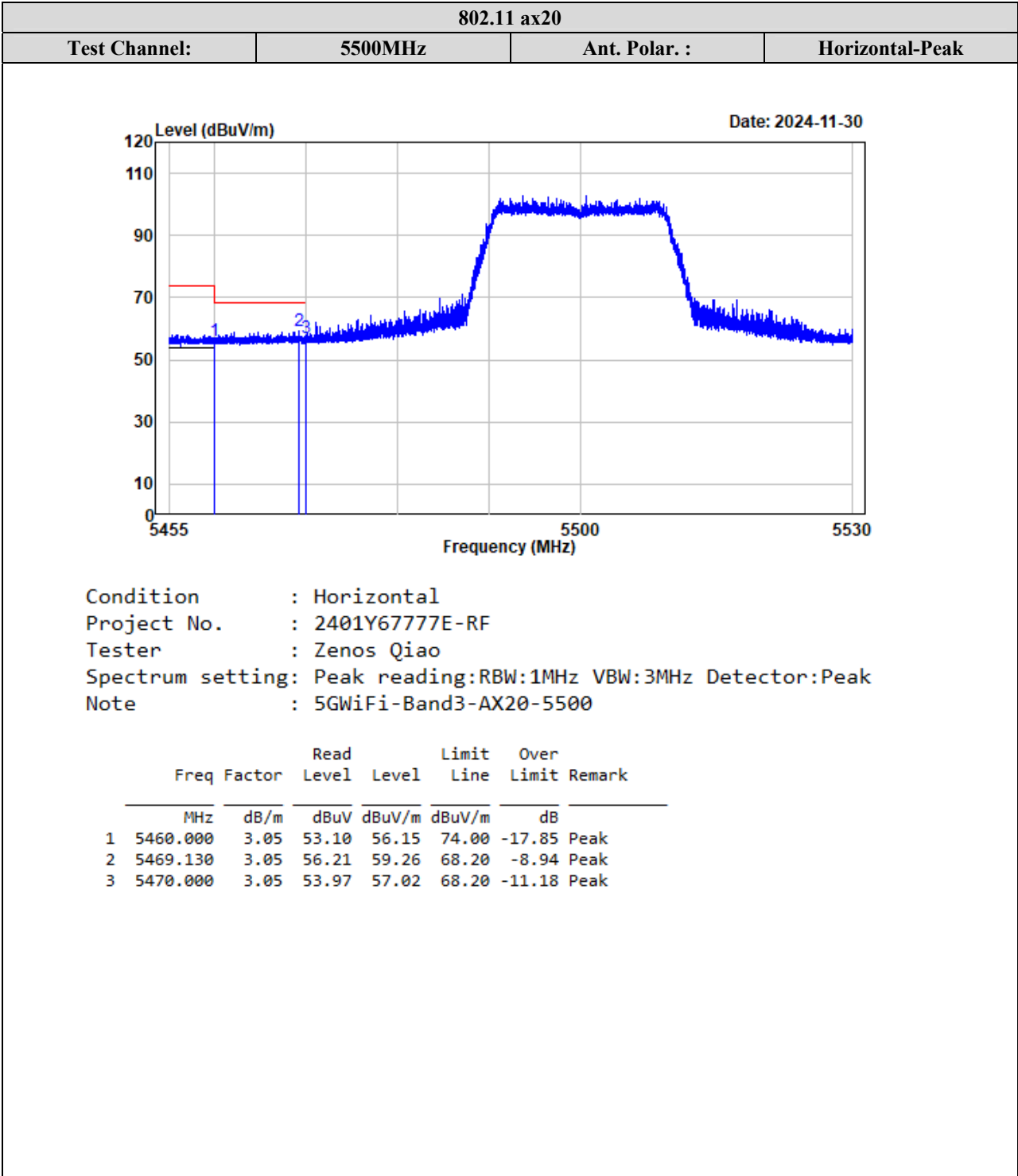


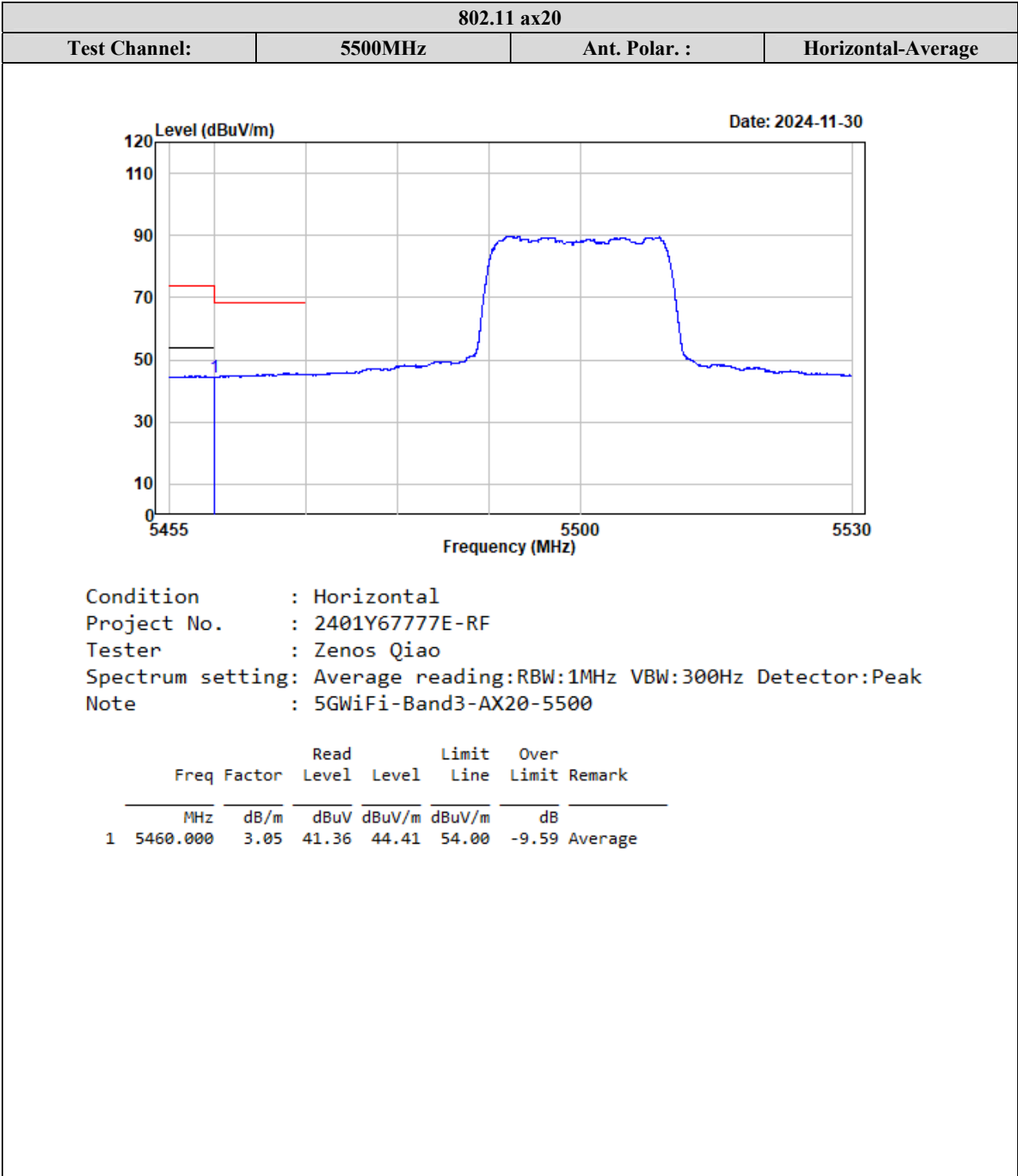


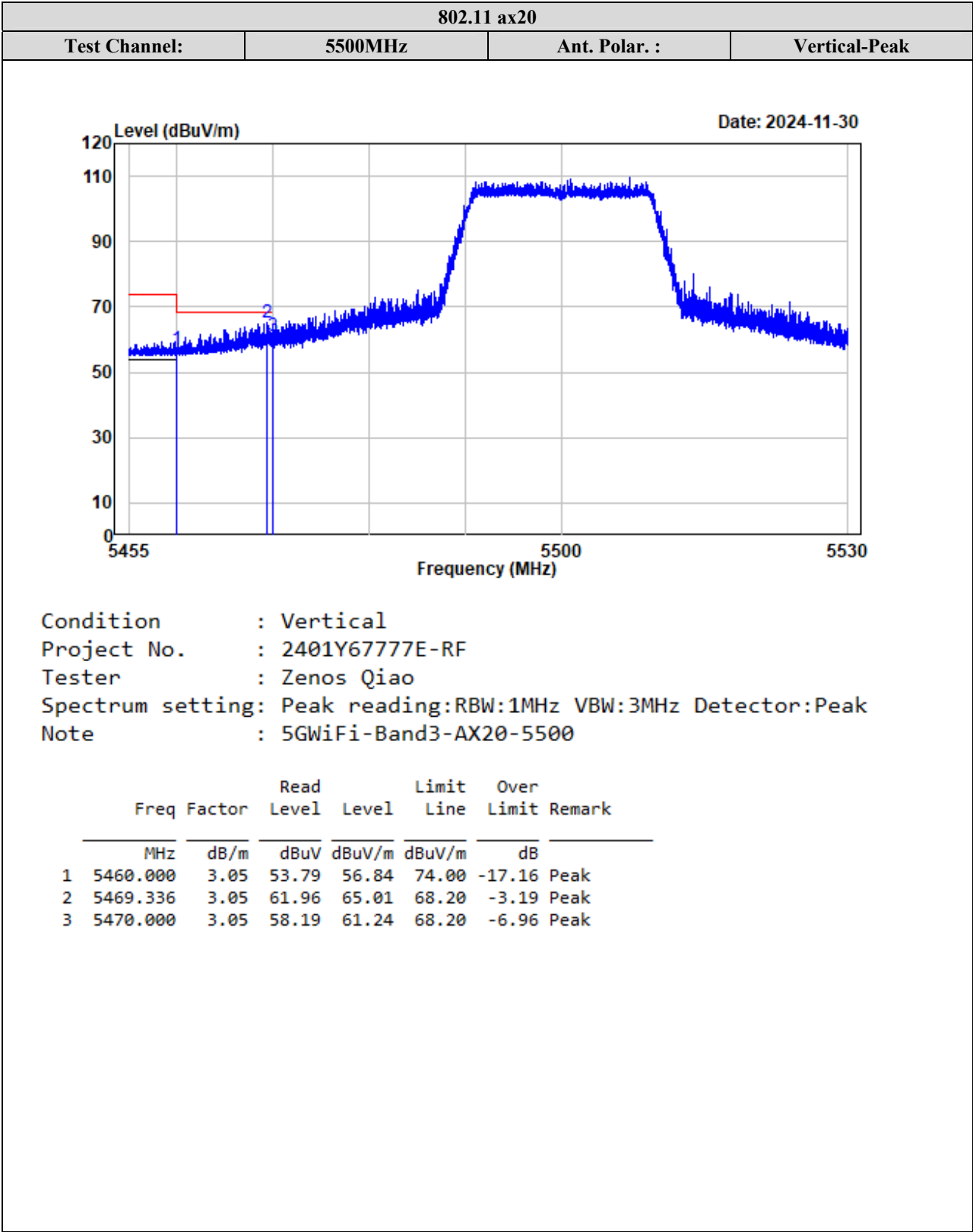


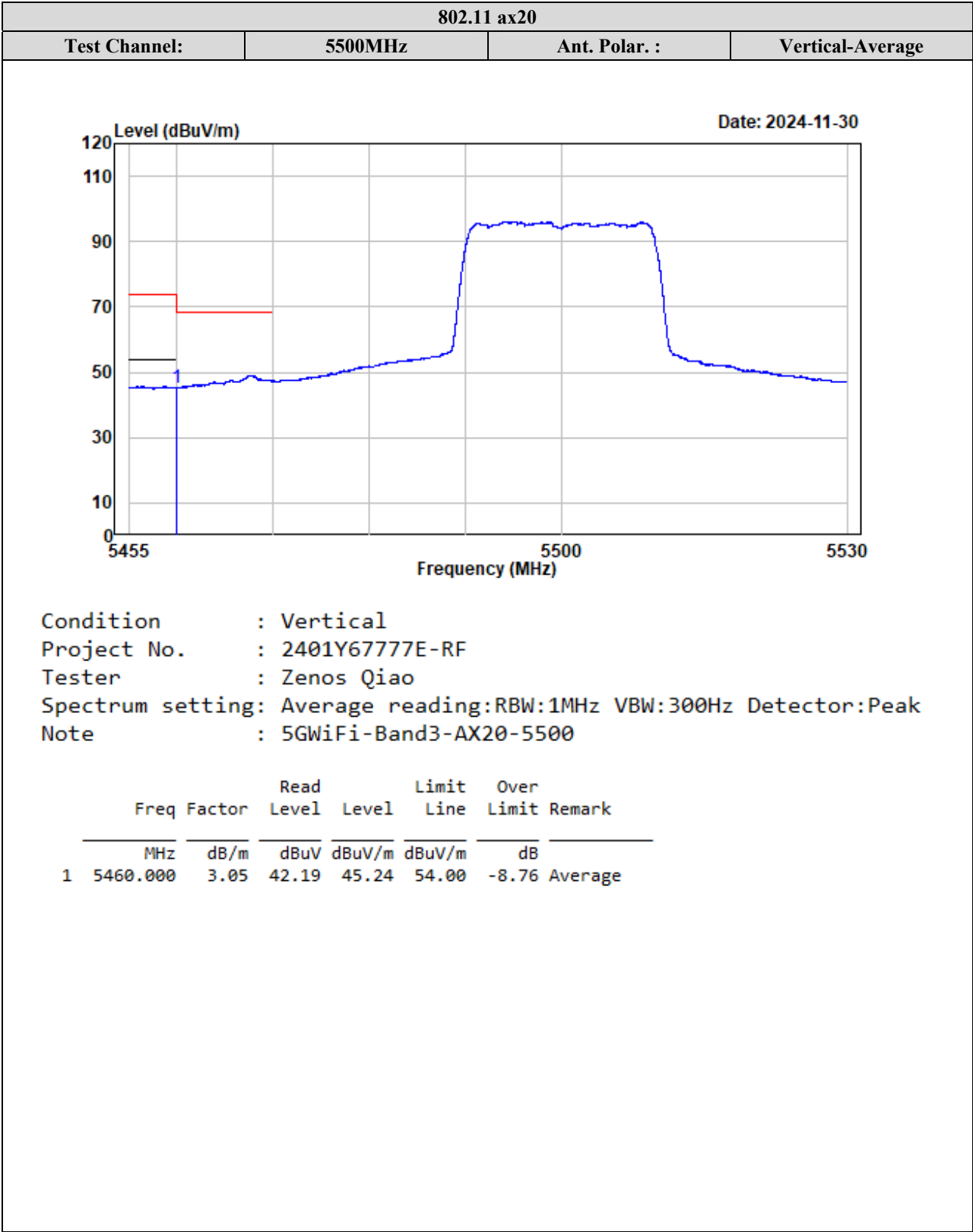


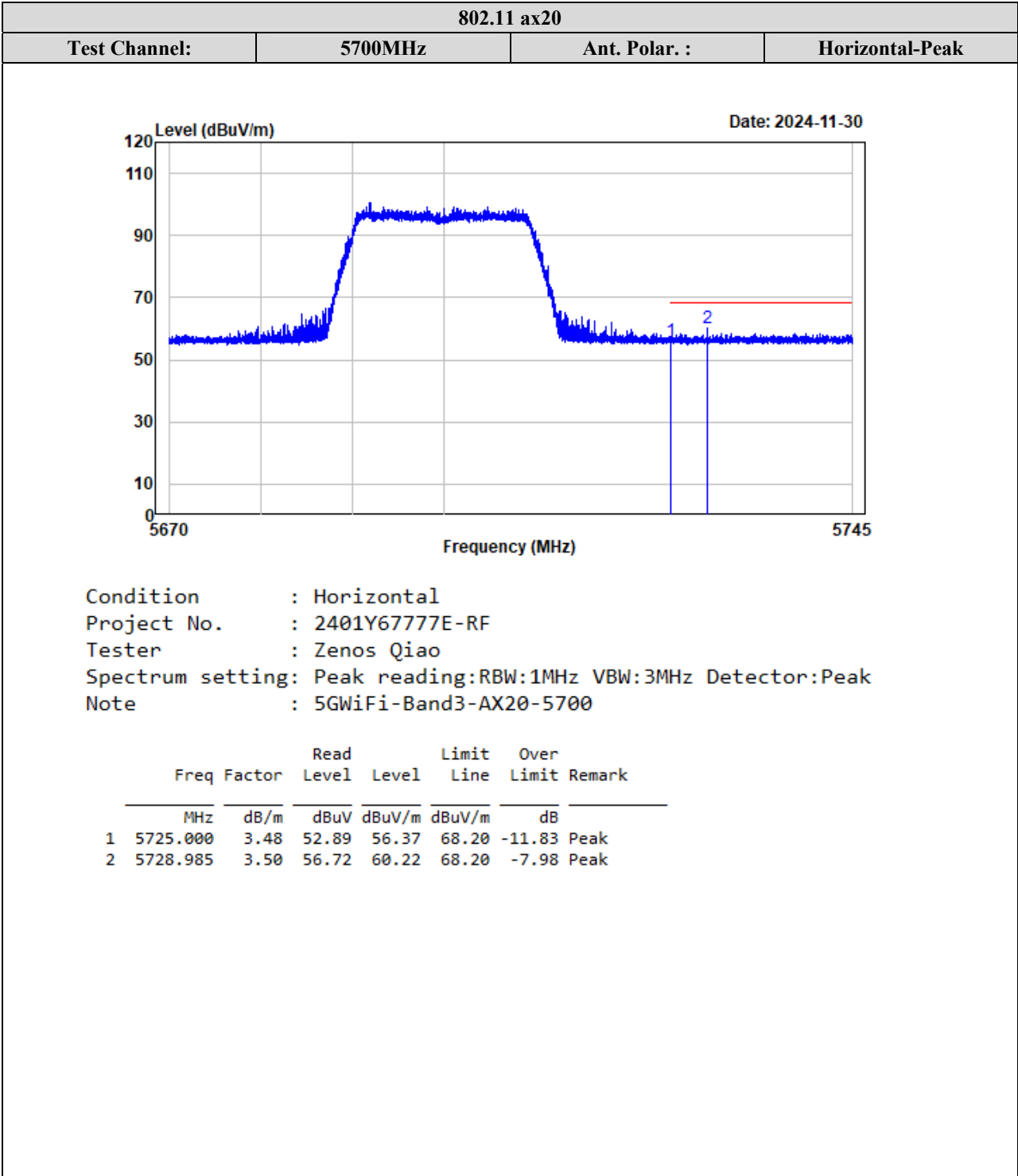


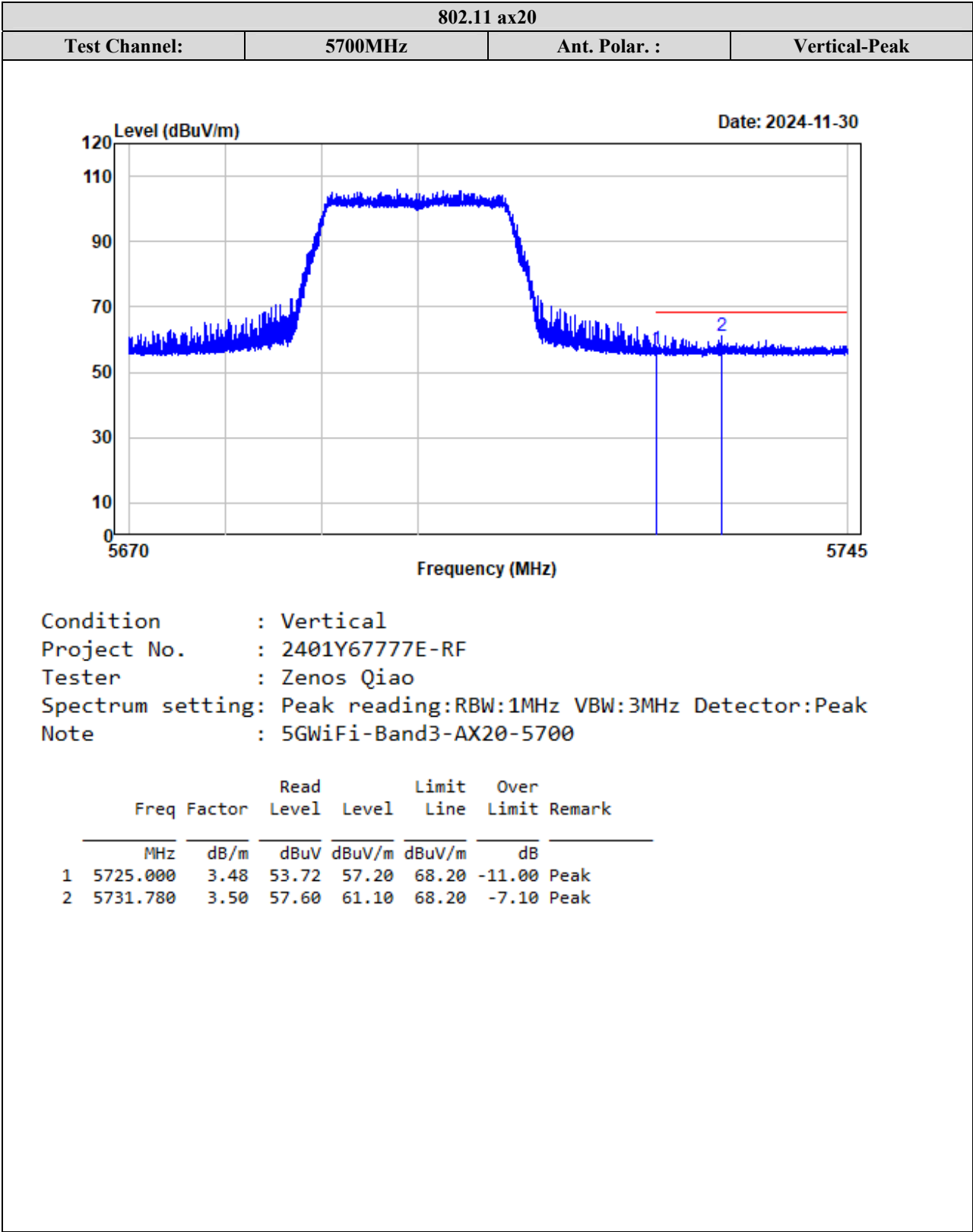


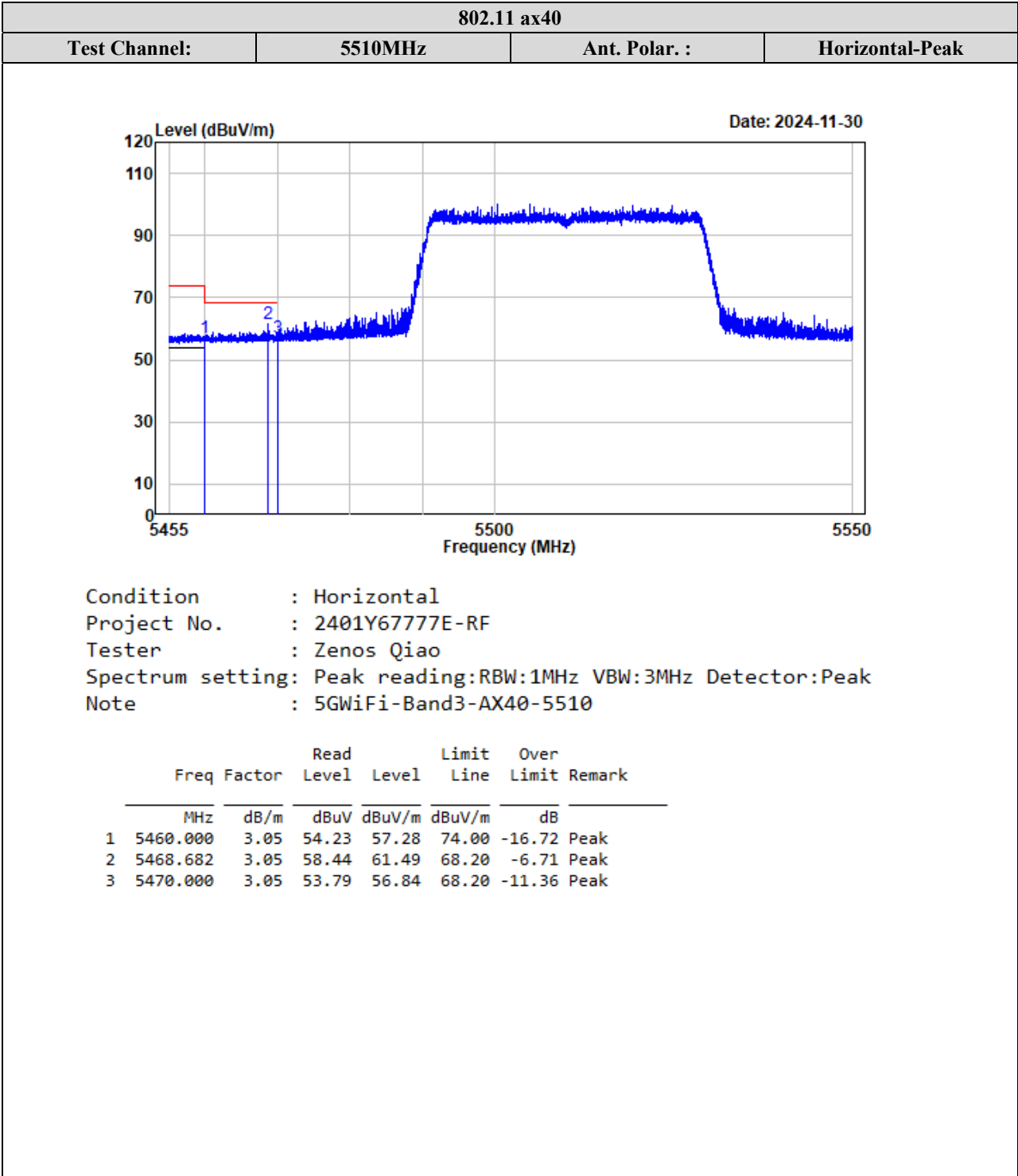


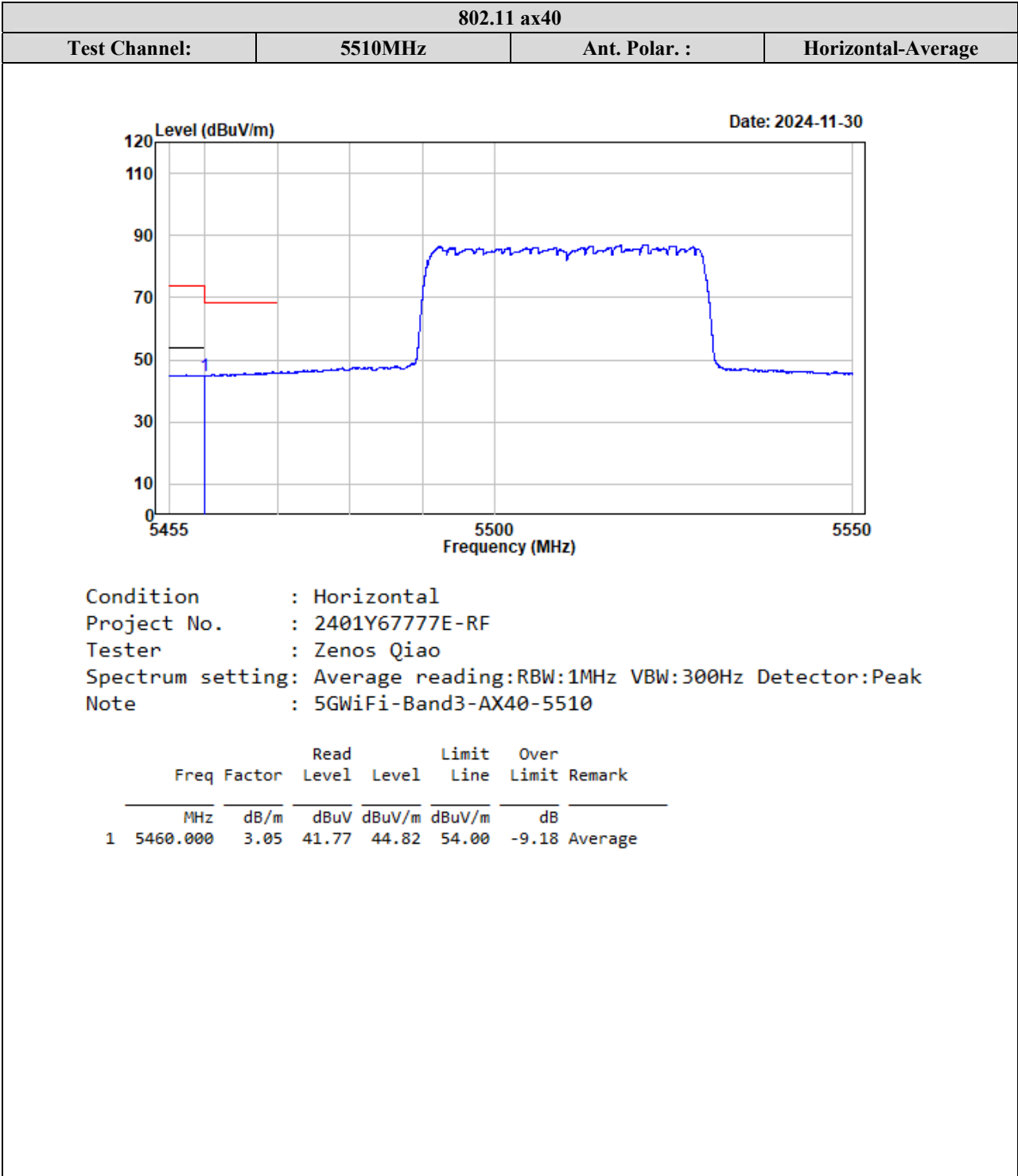


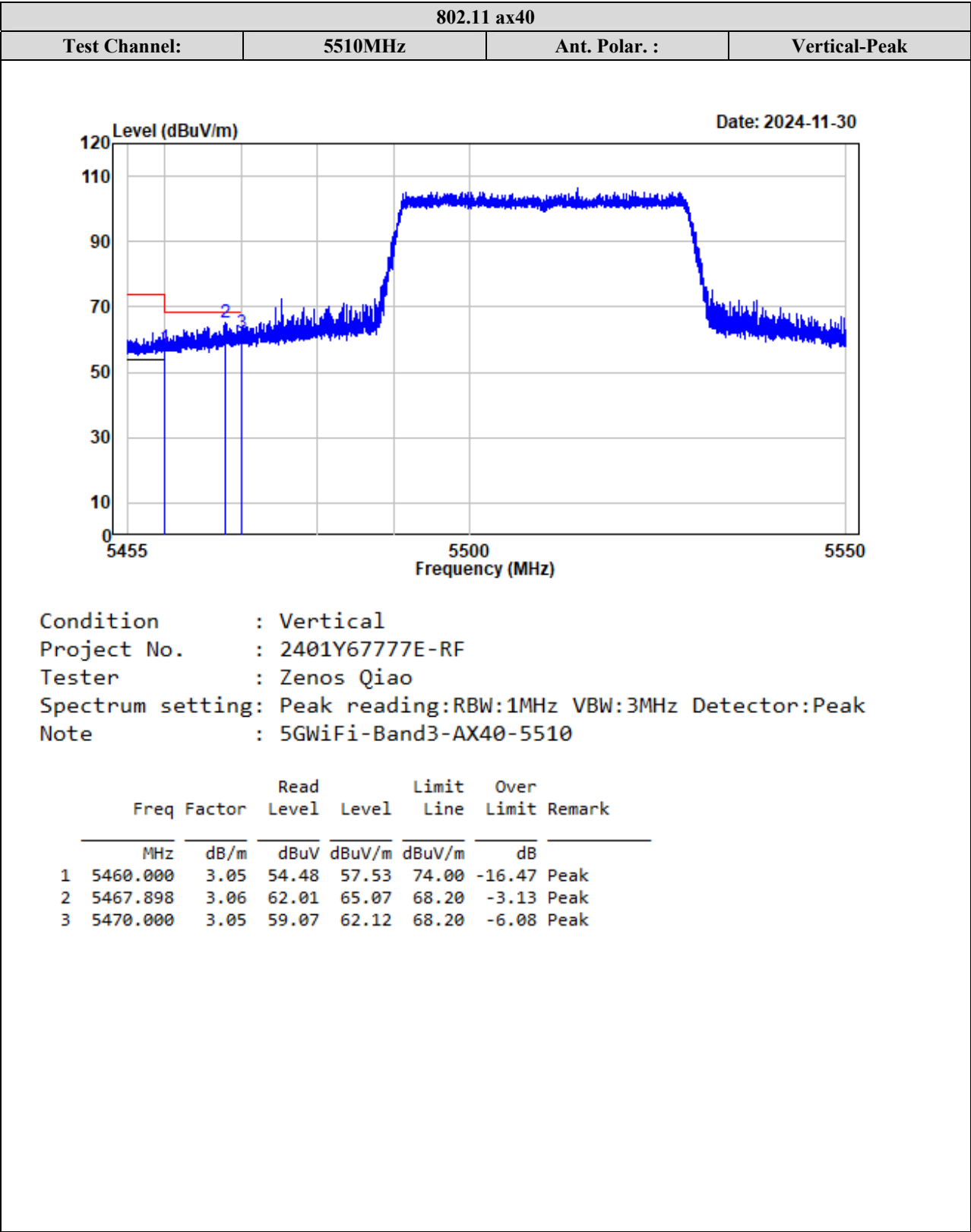


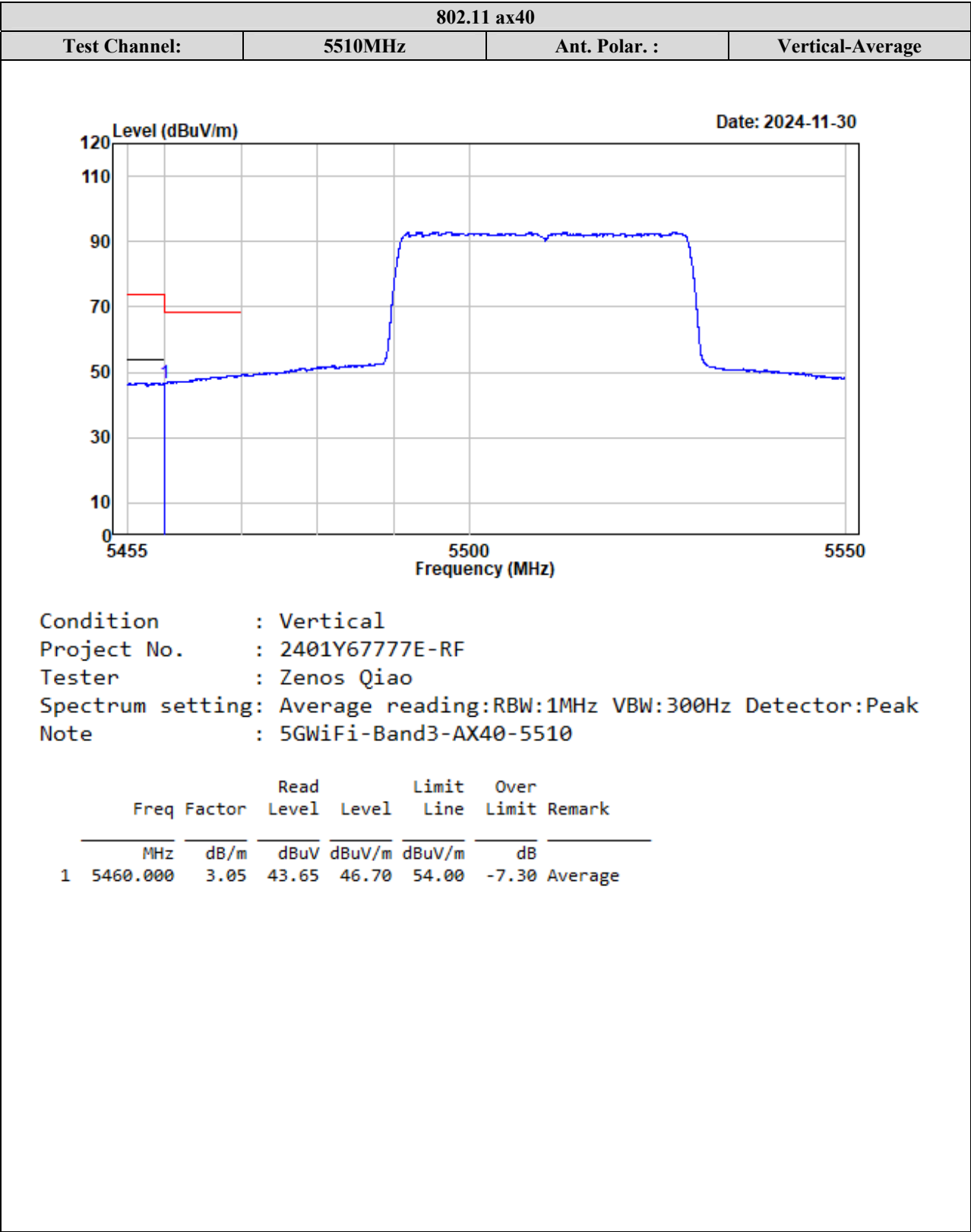


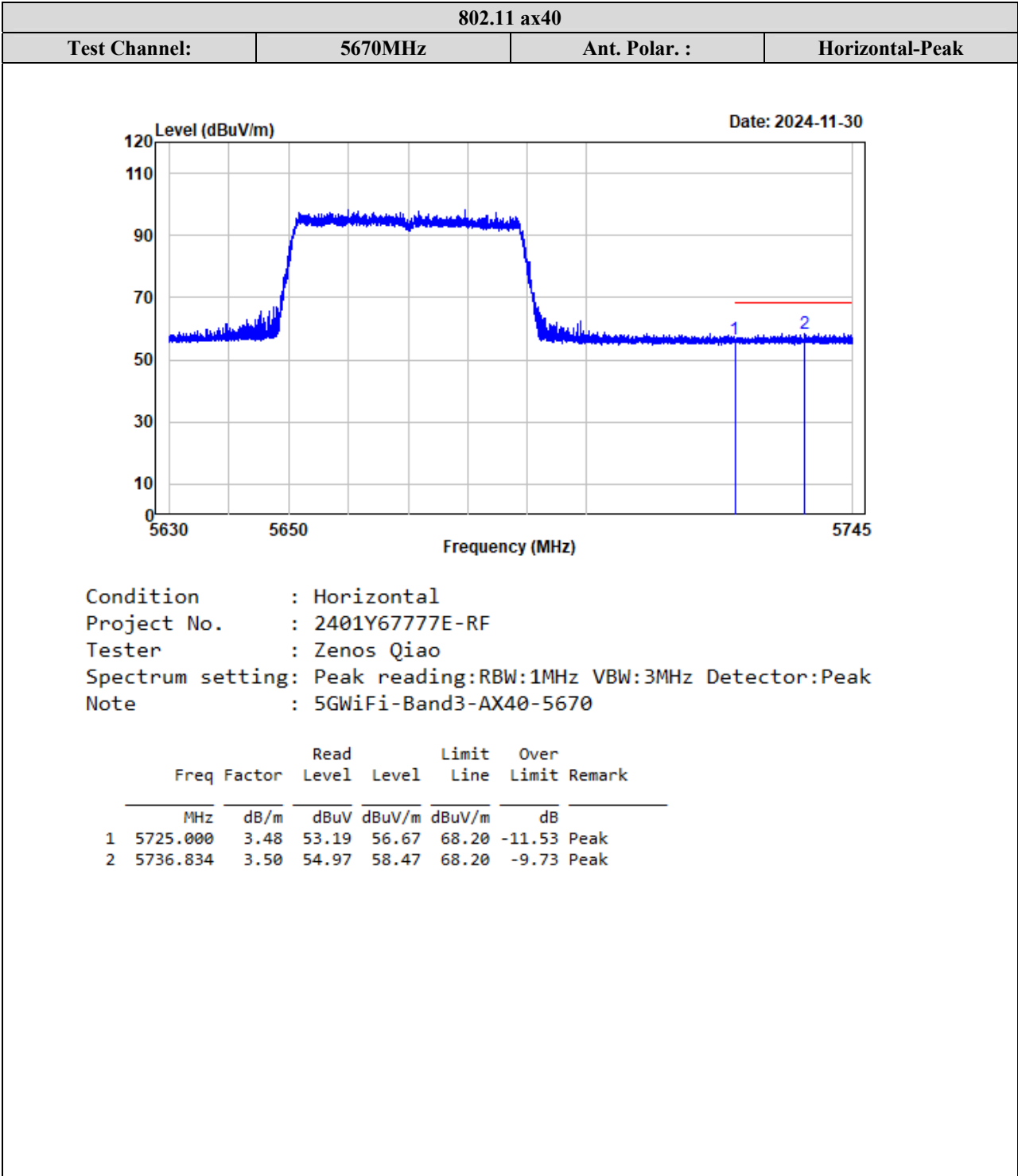


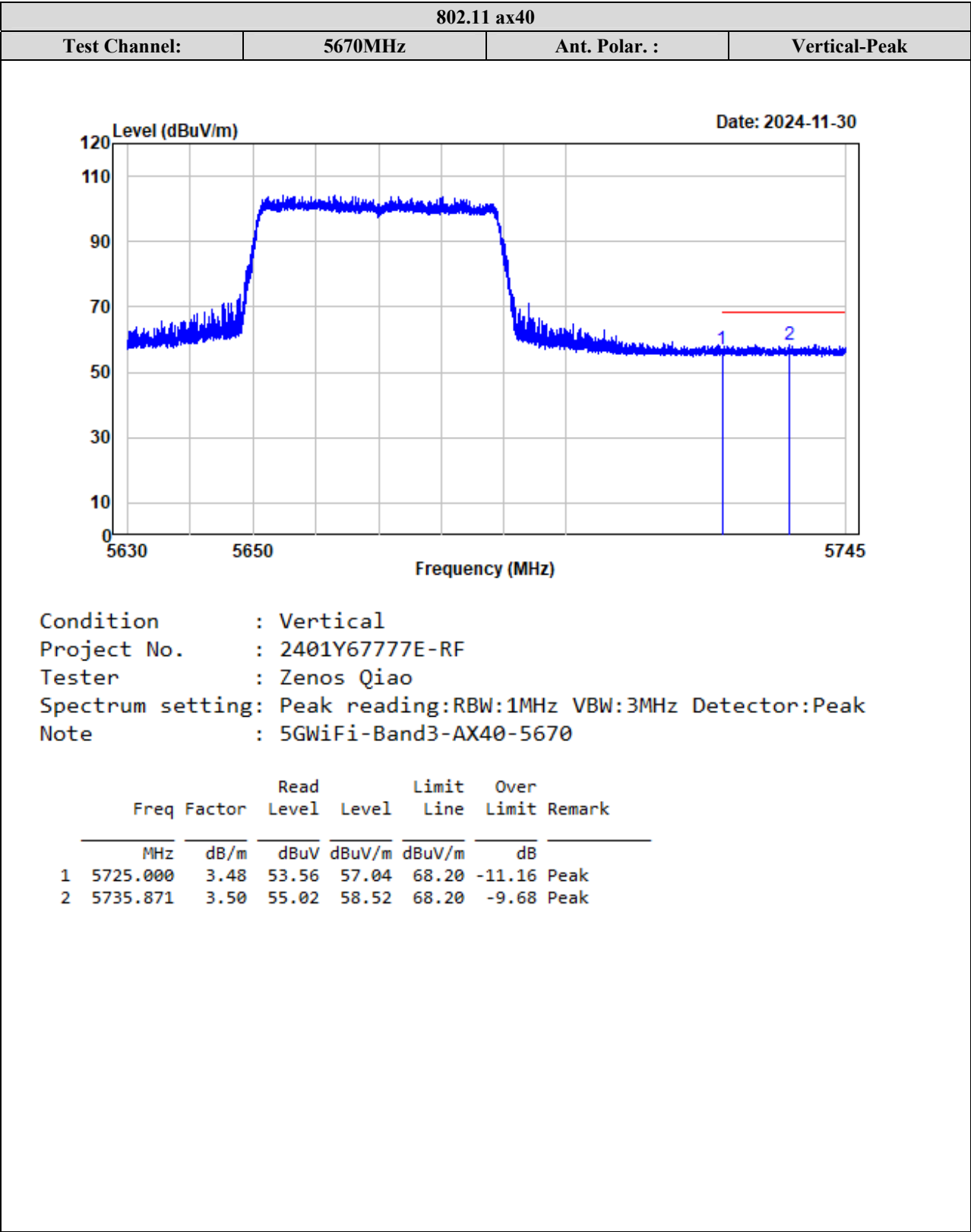




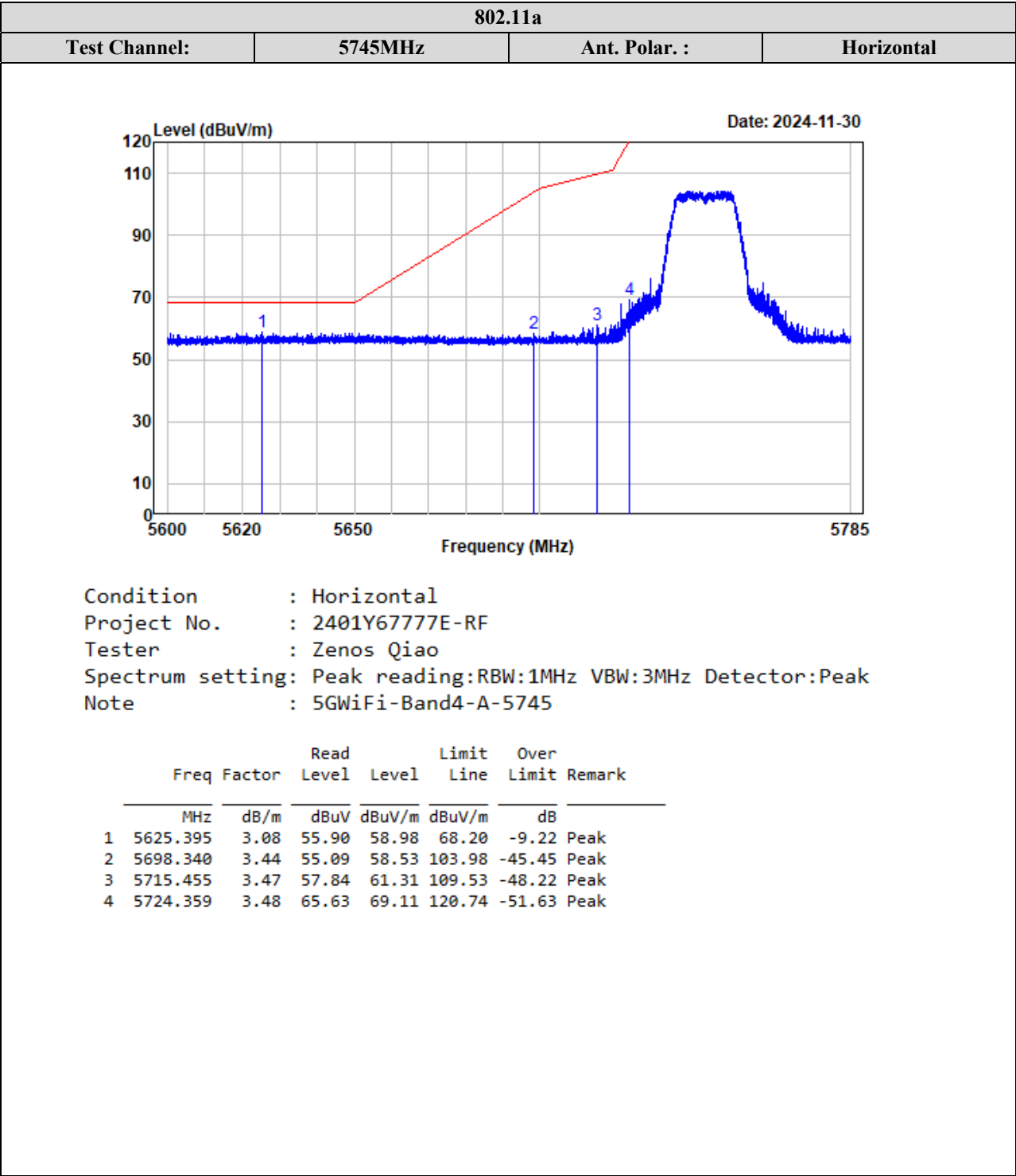


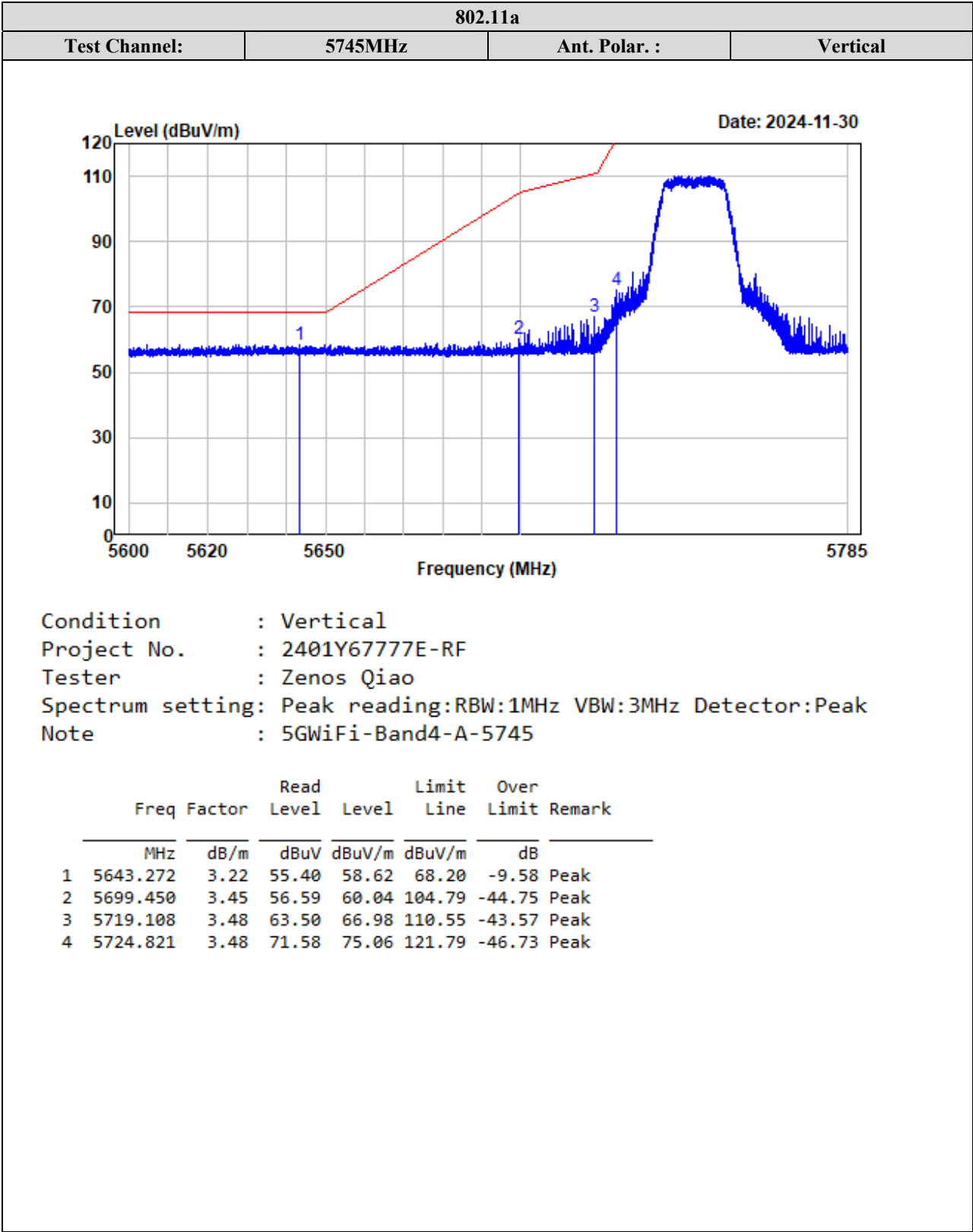


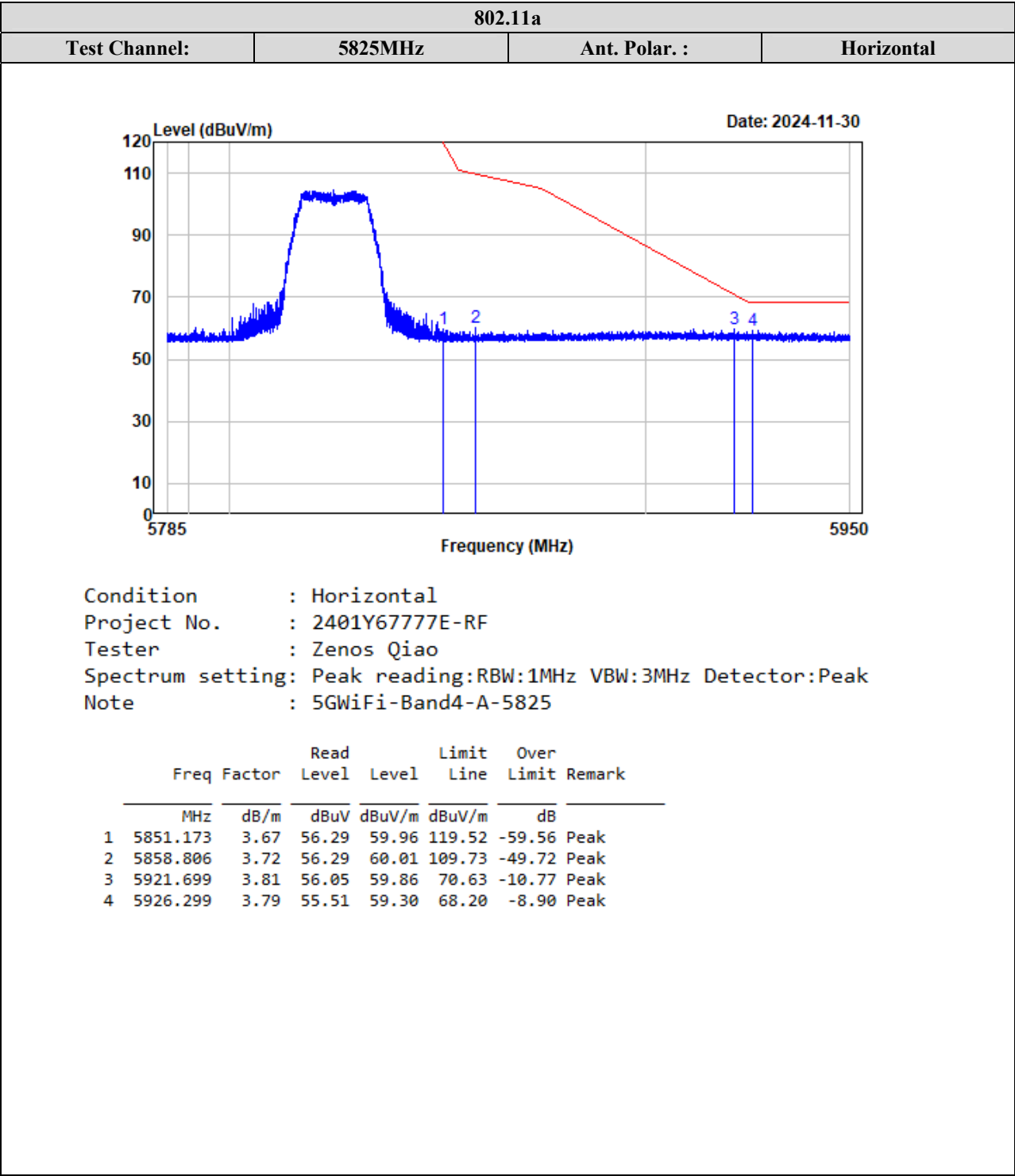


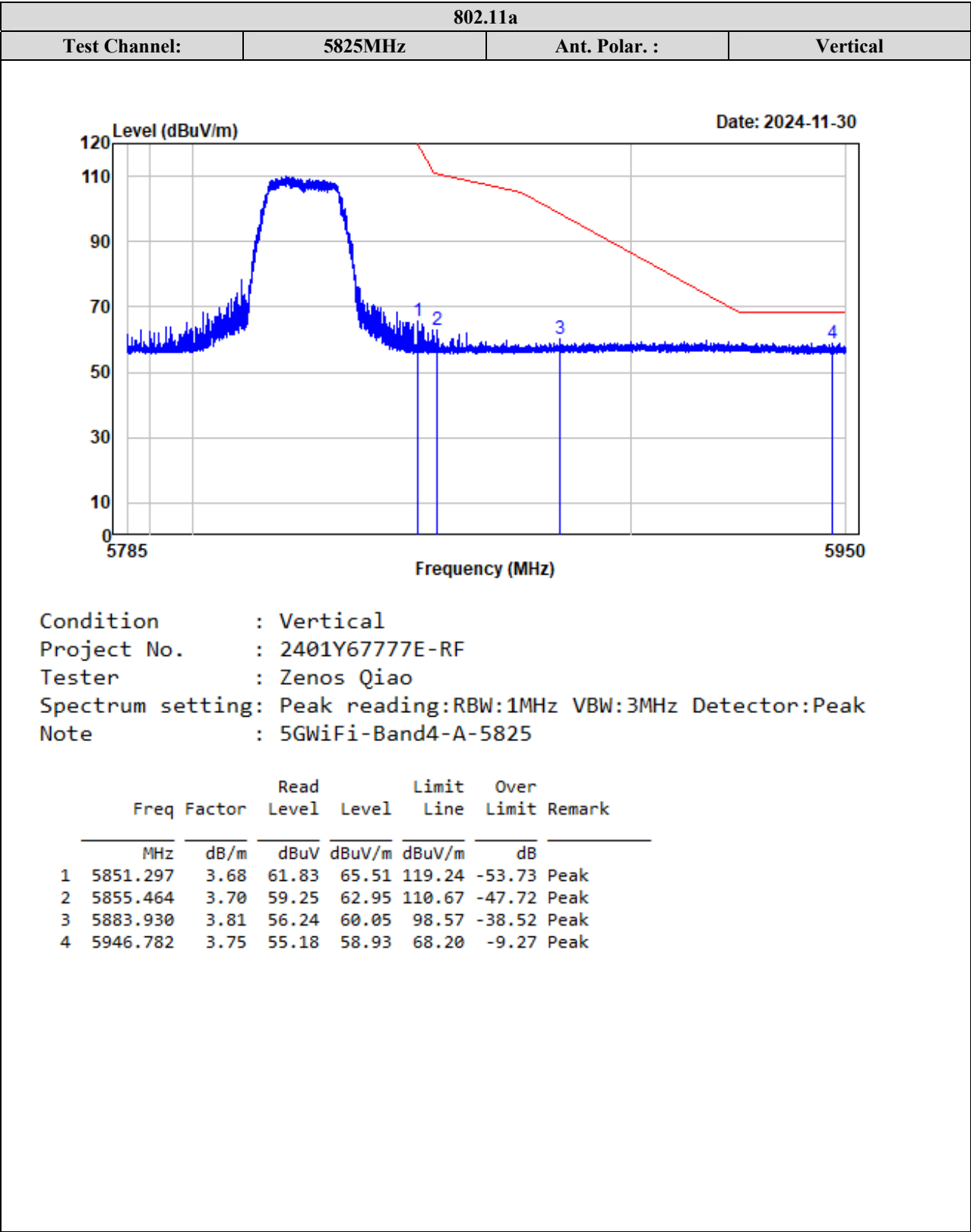


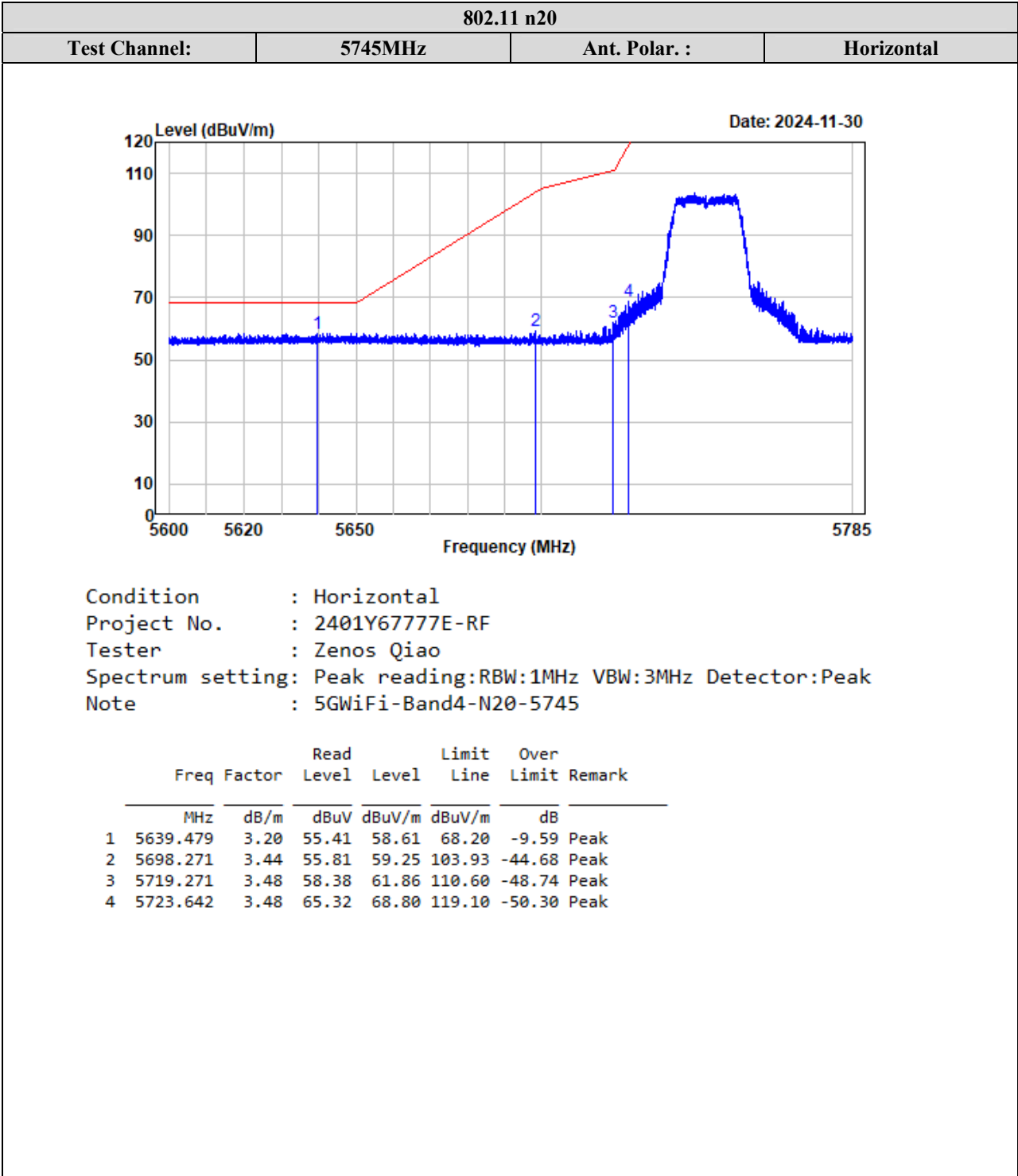
5725-5850 MHz:

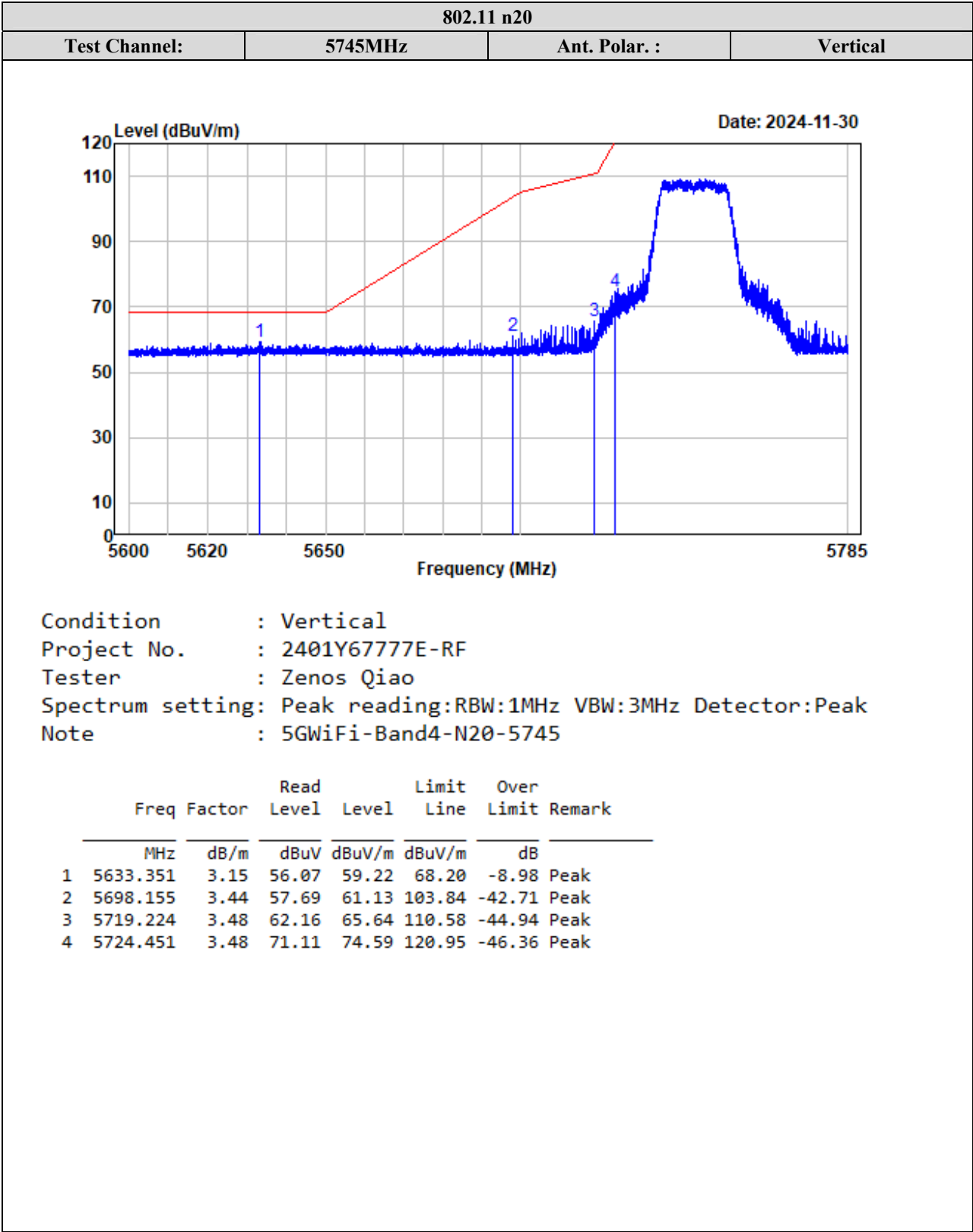


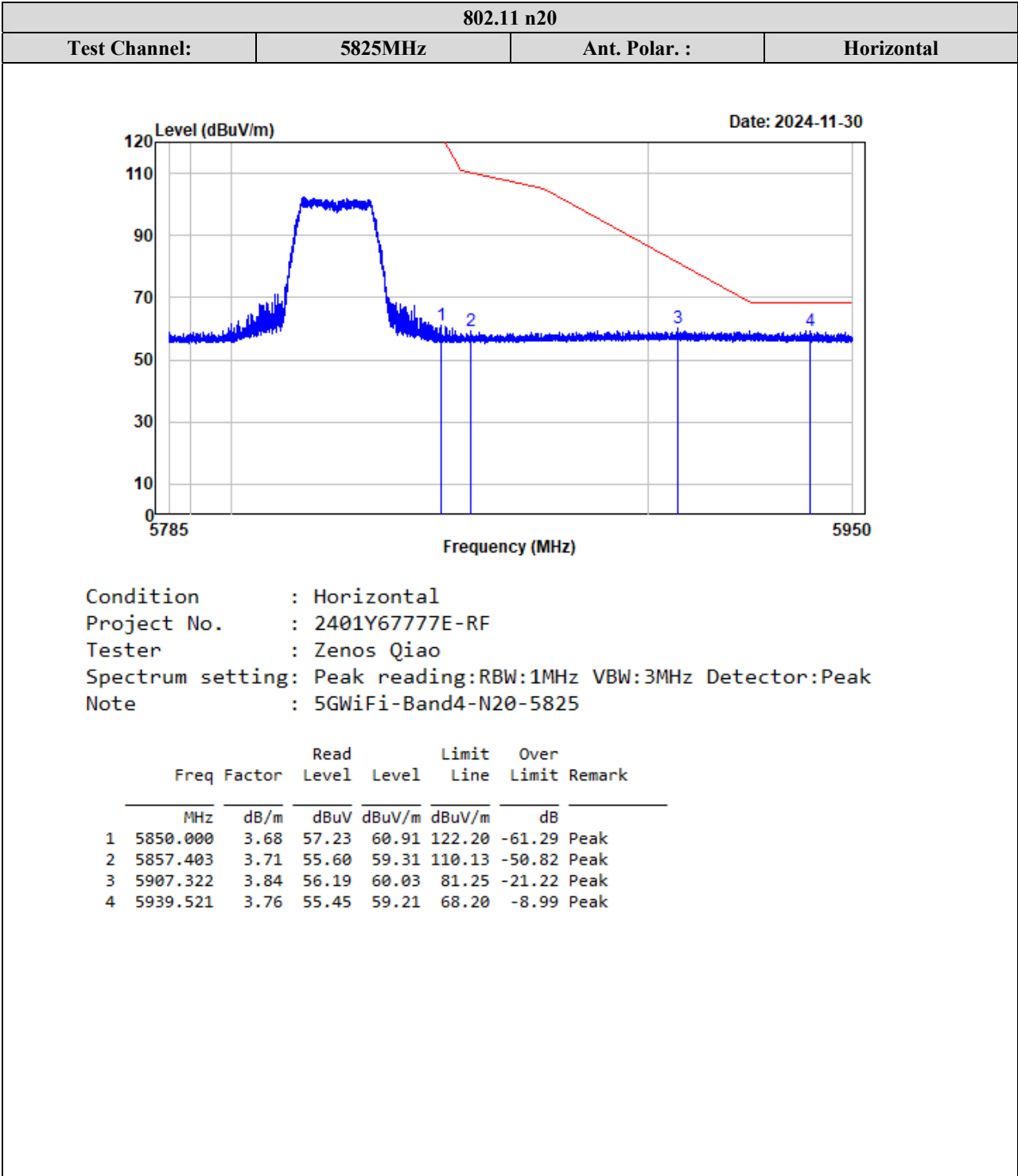


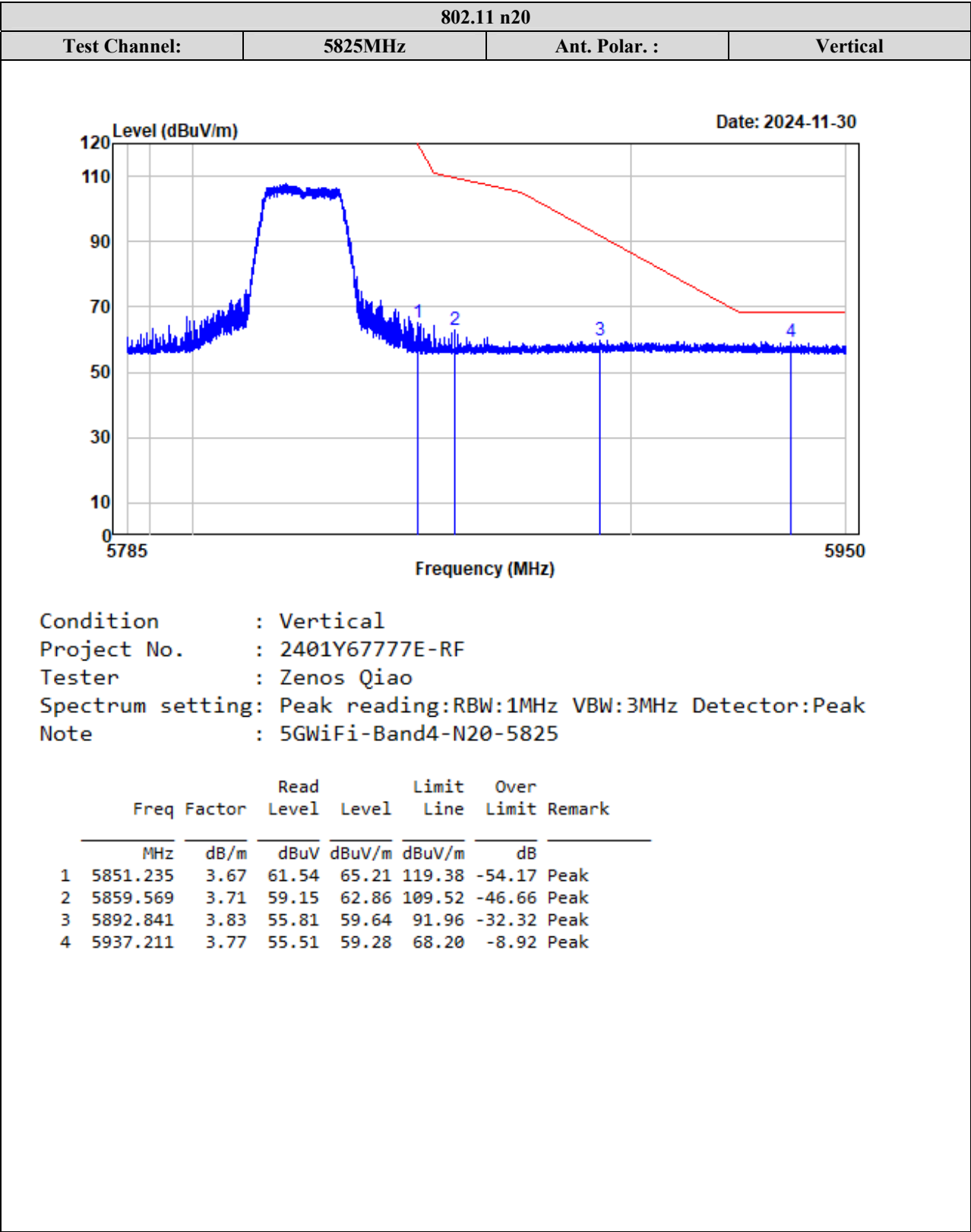


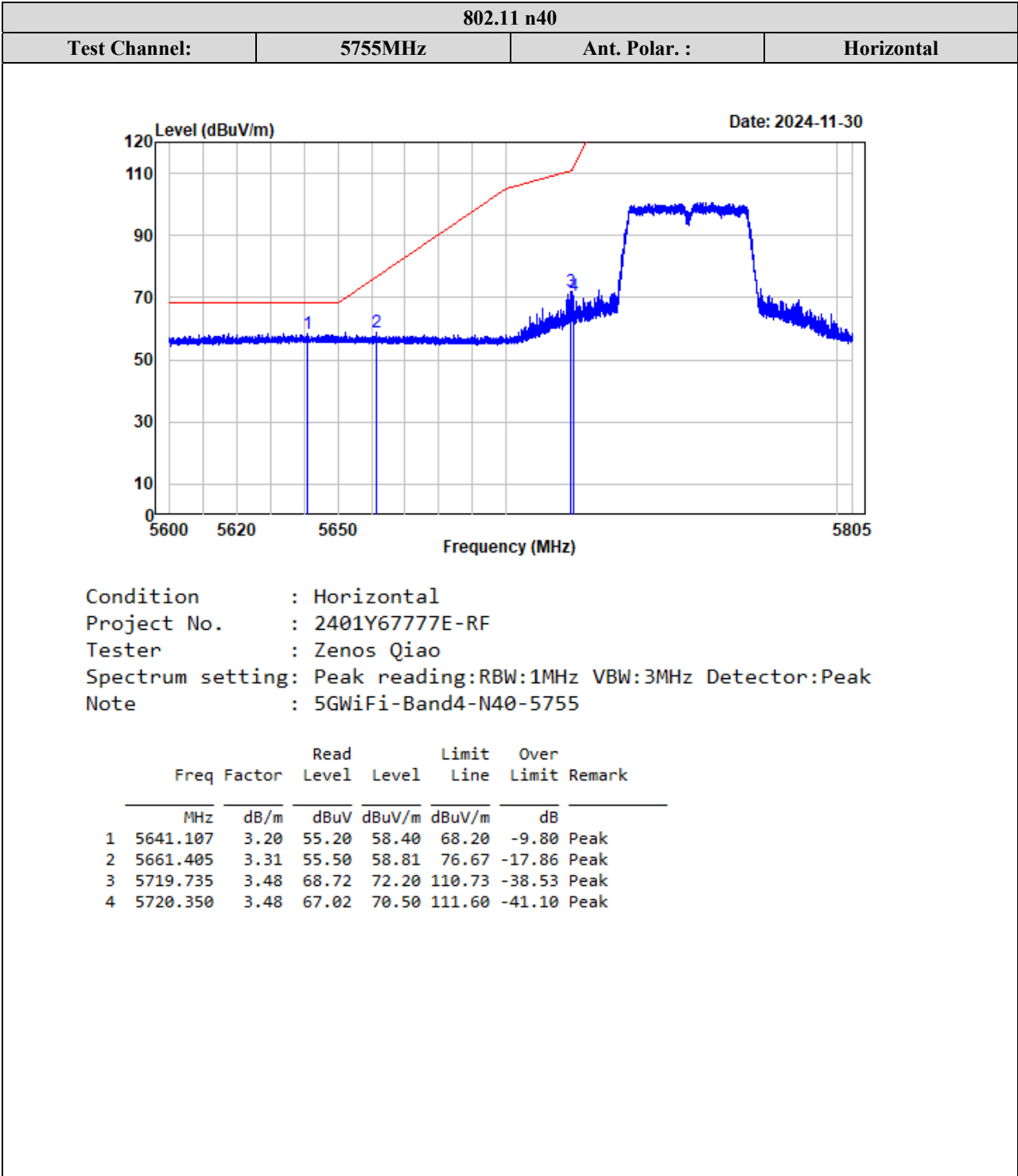


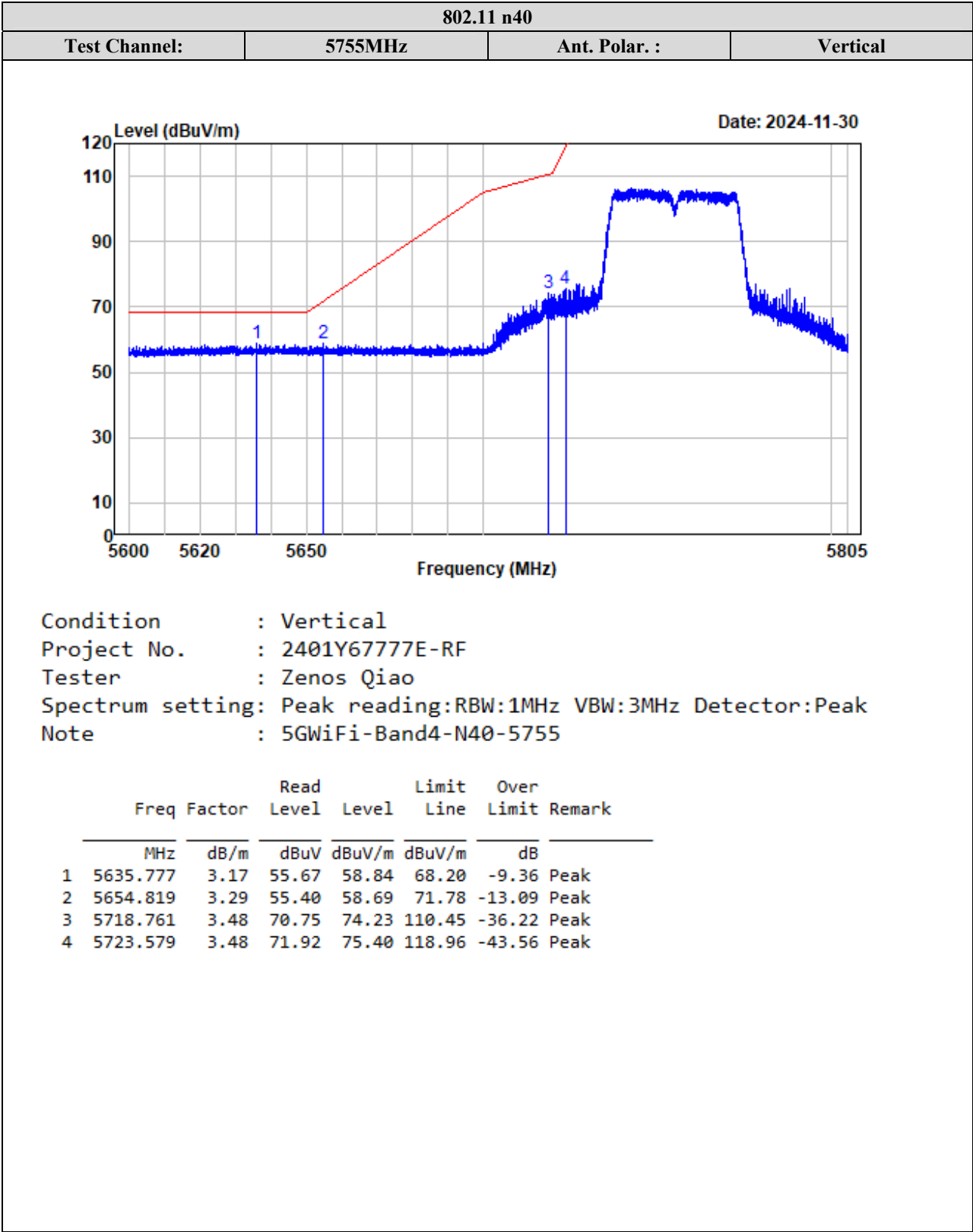


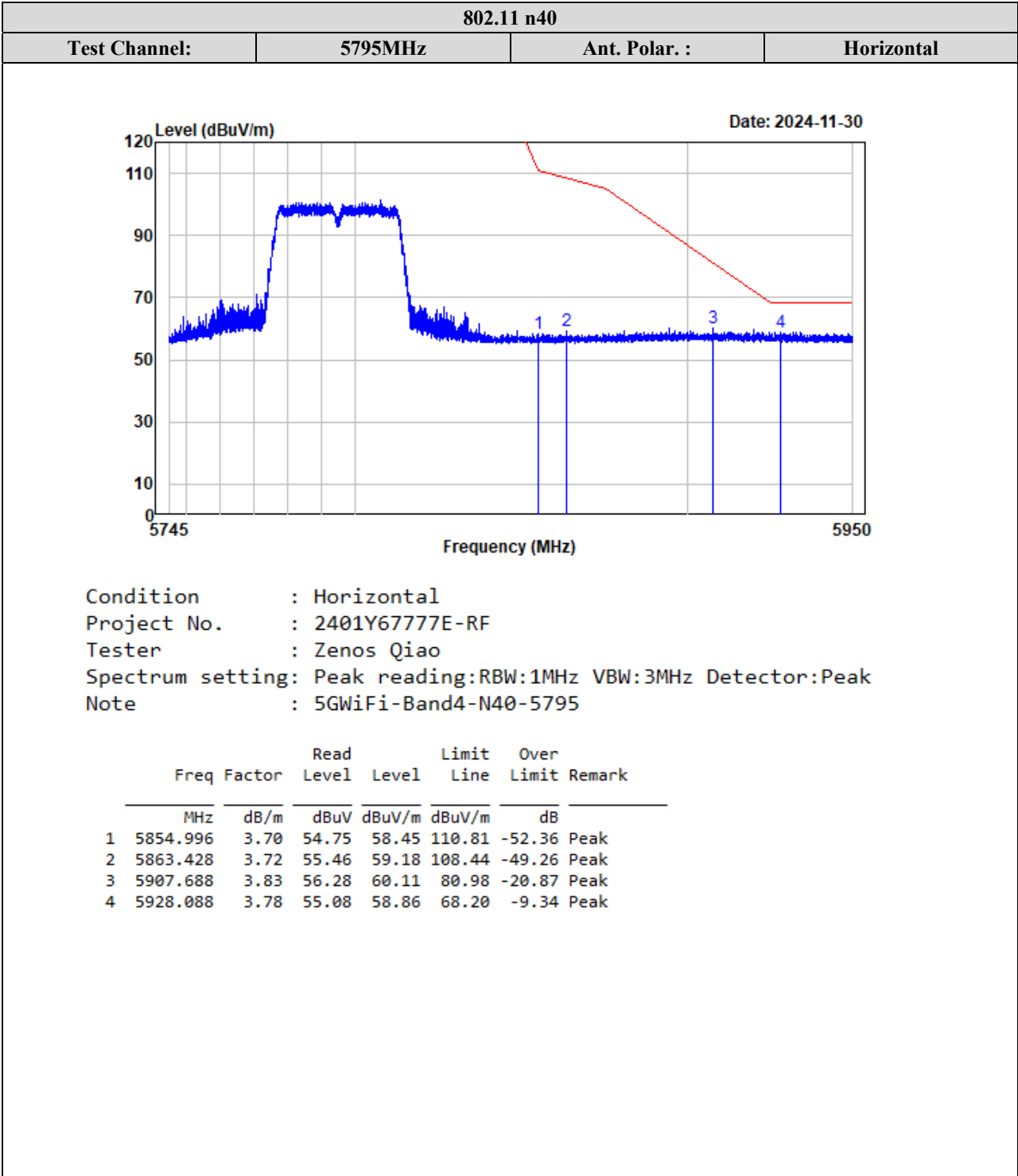


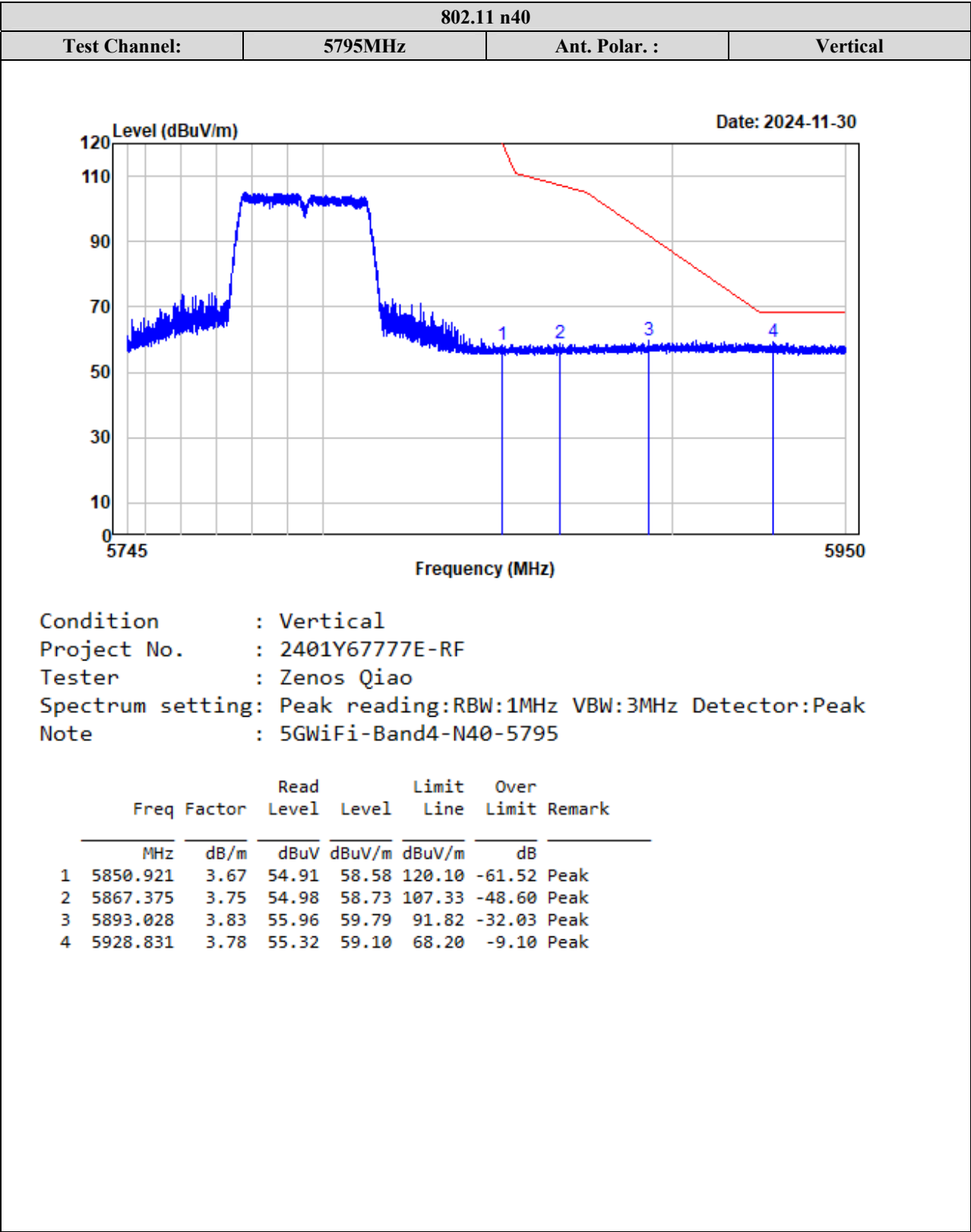








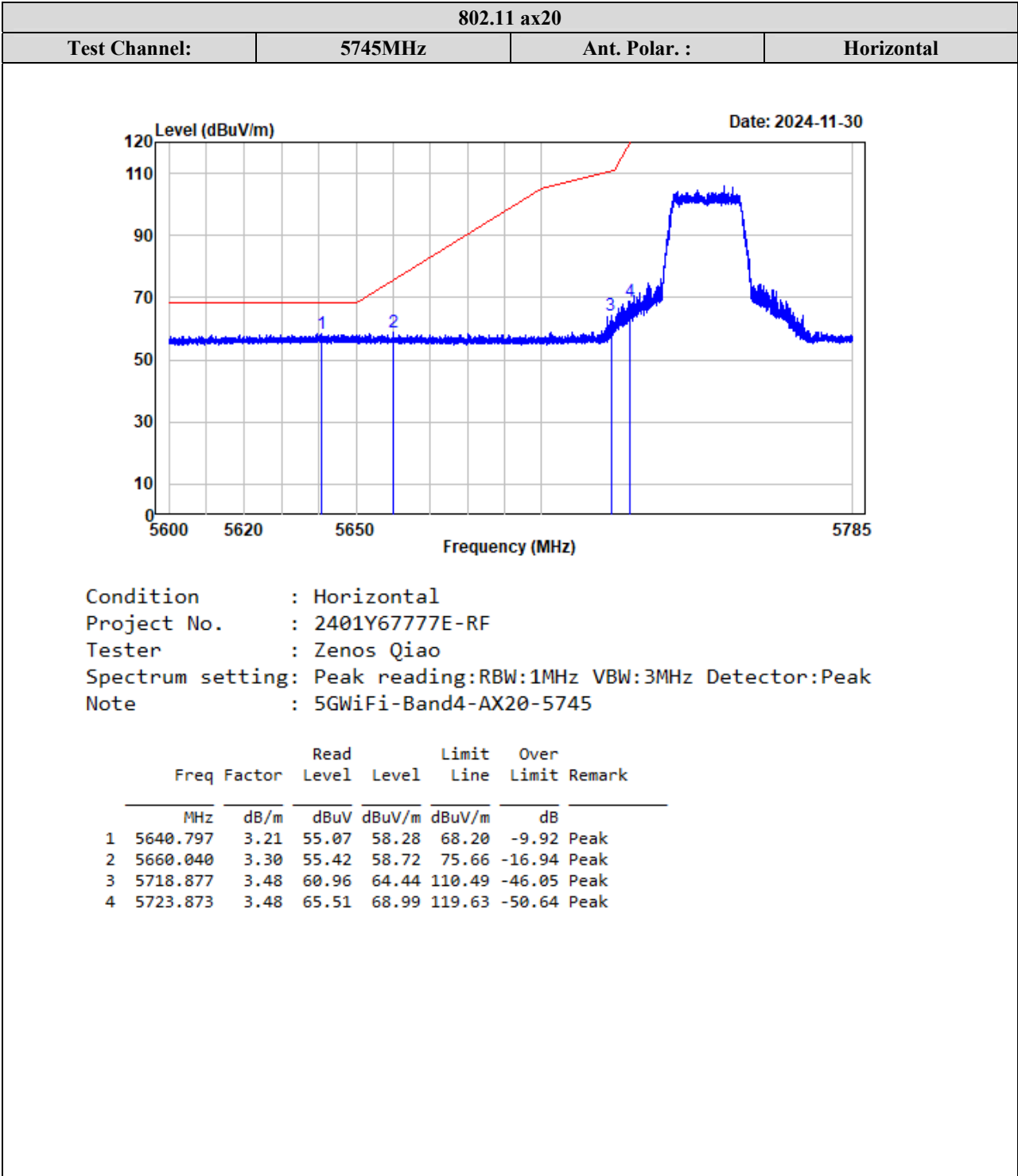




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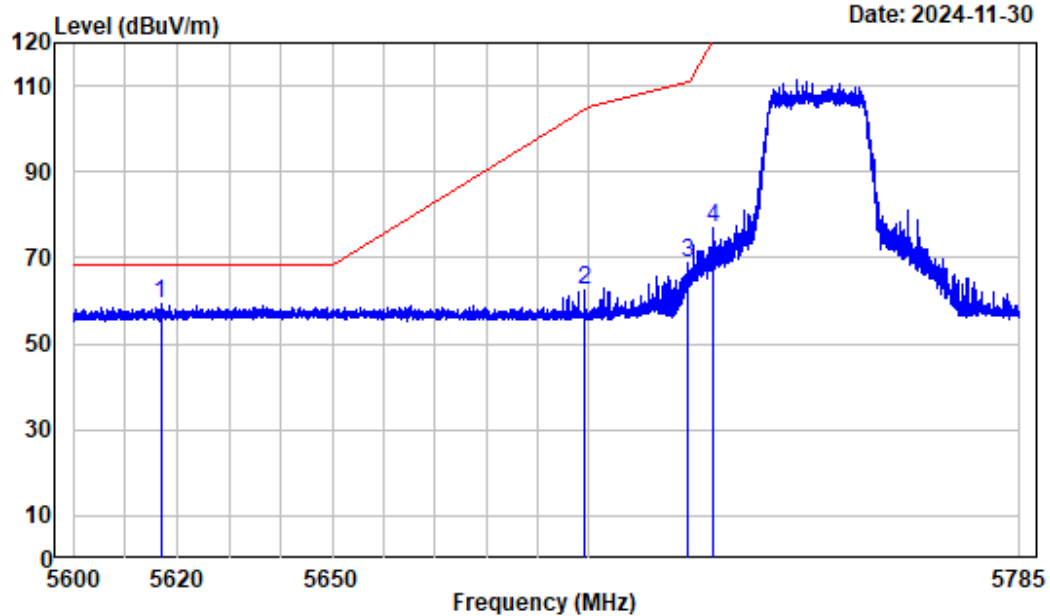
802.11 ax20

Test Channel:

5745MHz

Ant. Polar. :

Vertical



Condition : Vertical

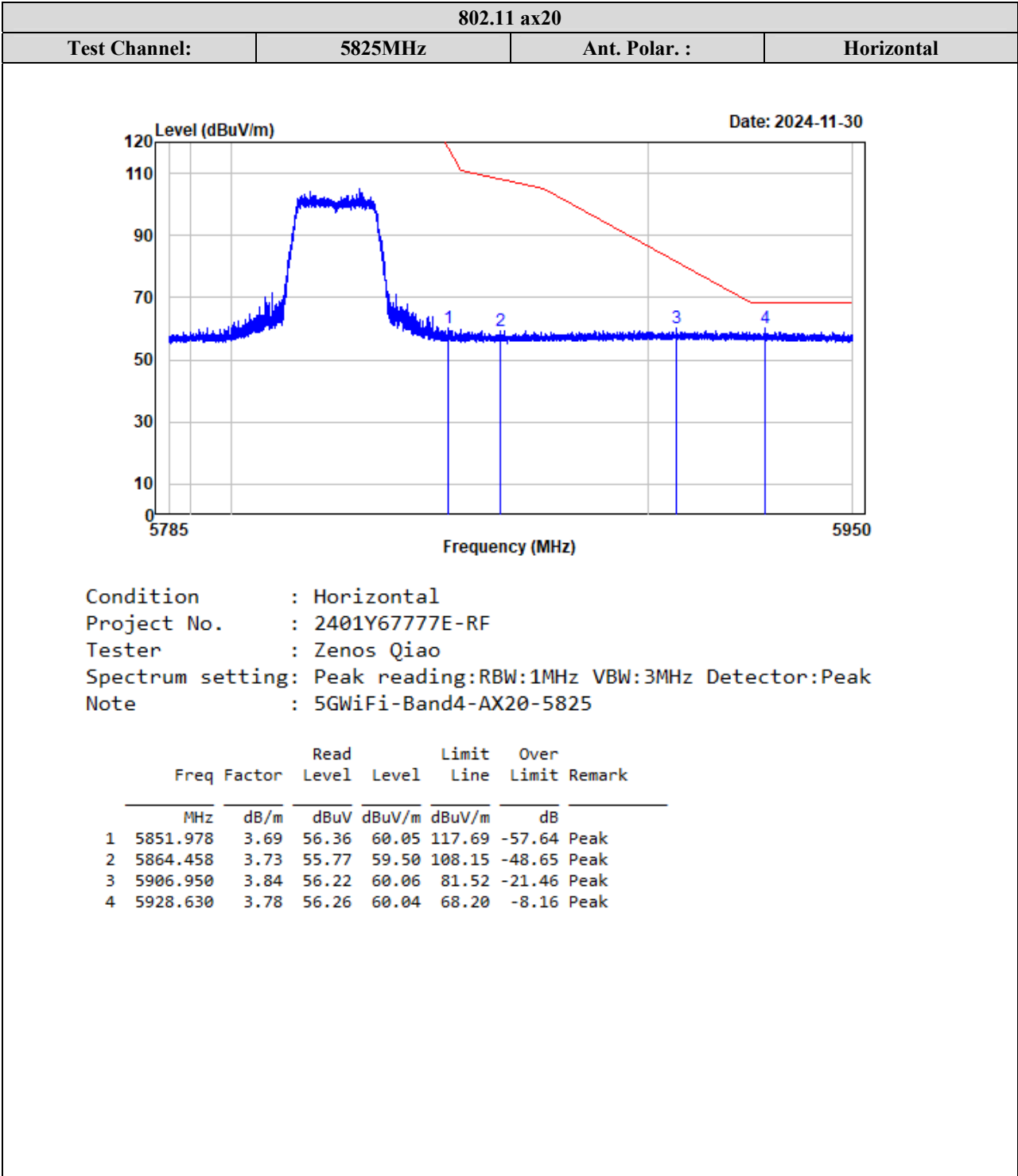
Project No. : 2401Y67777E-RF

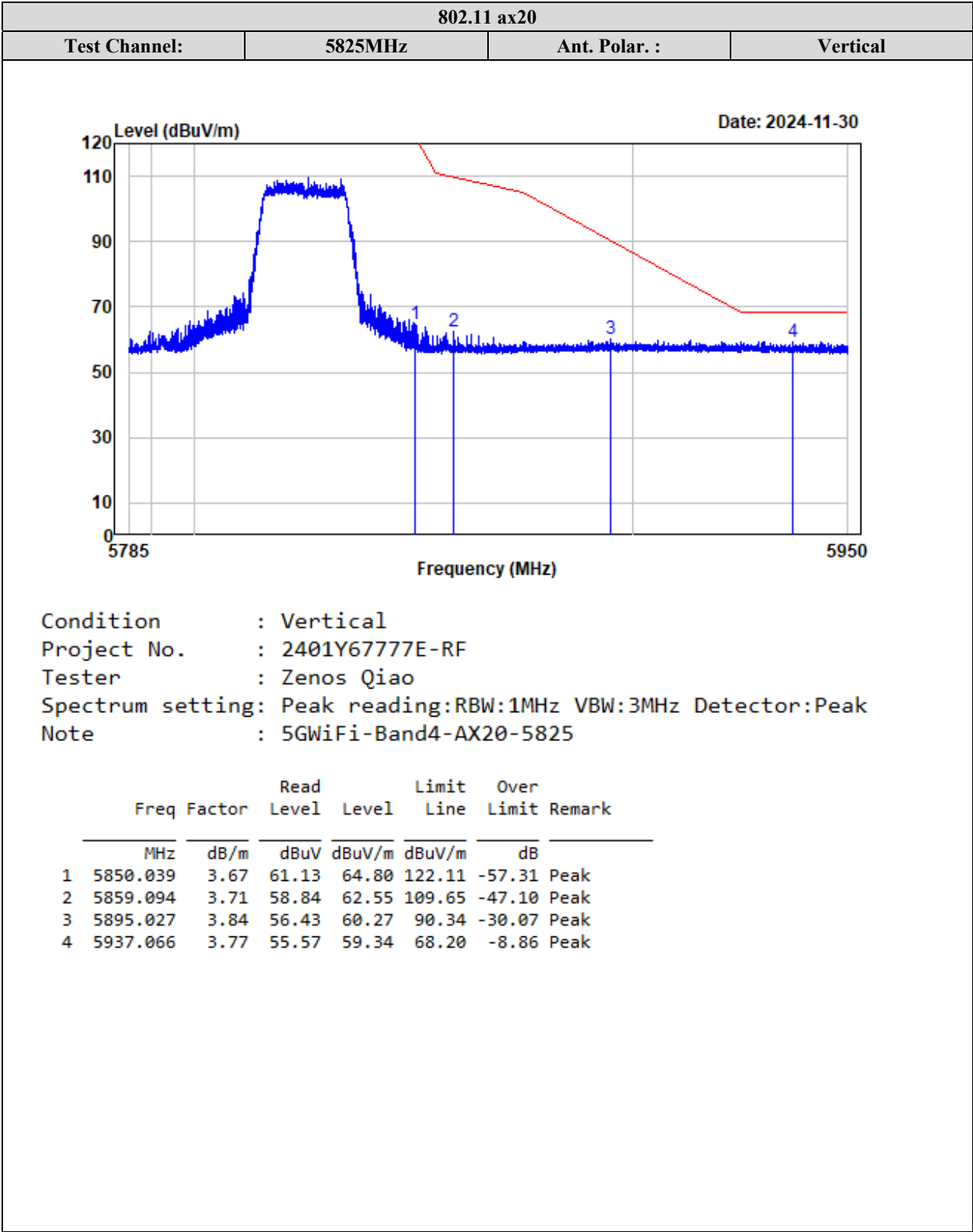
Tester : Zenos Qiao

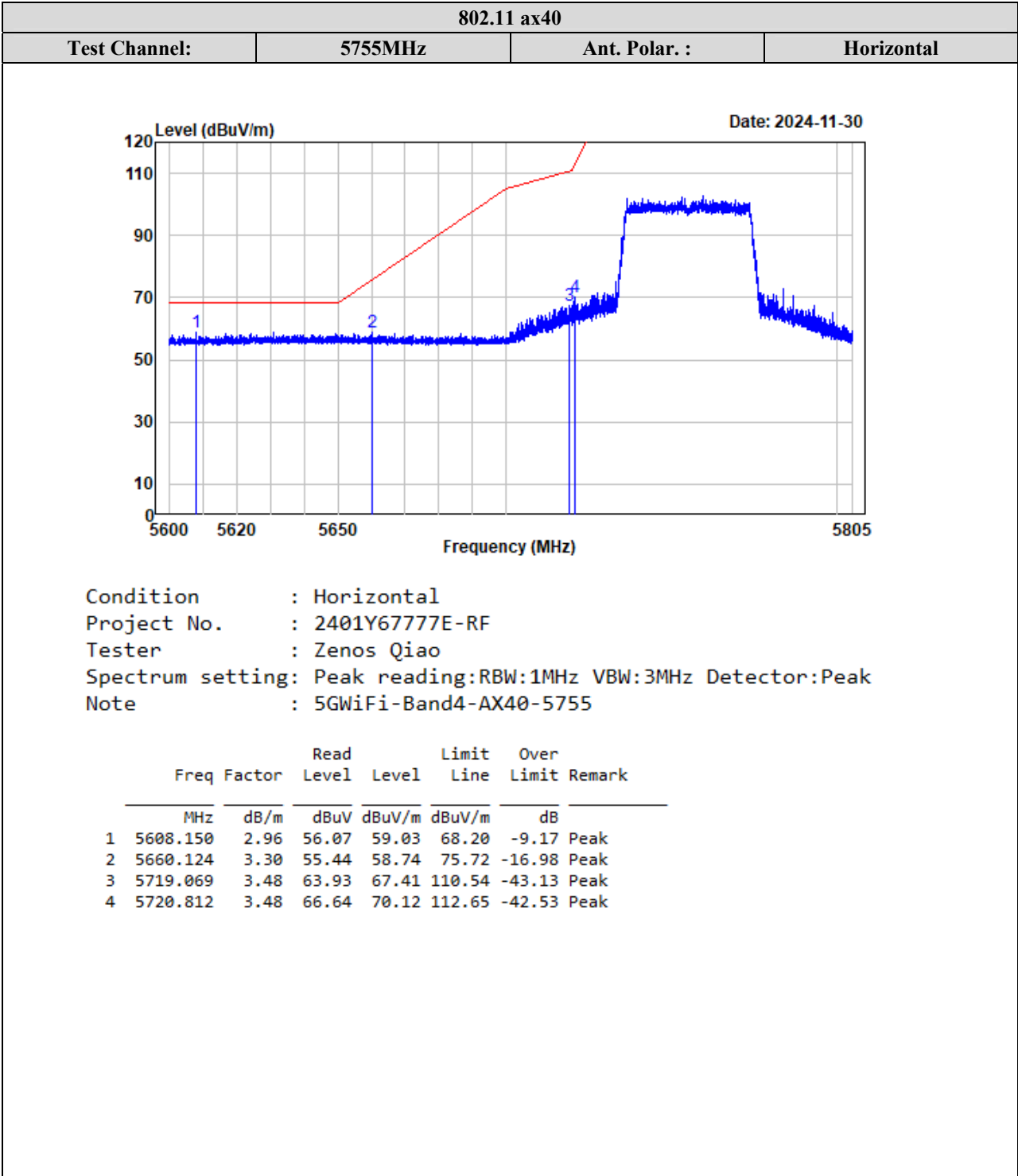
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak

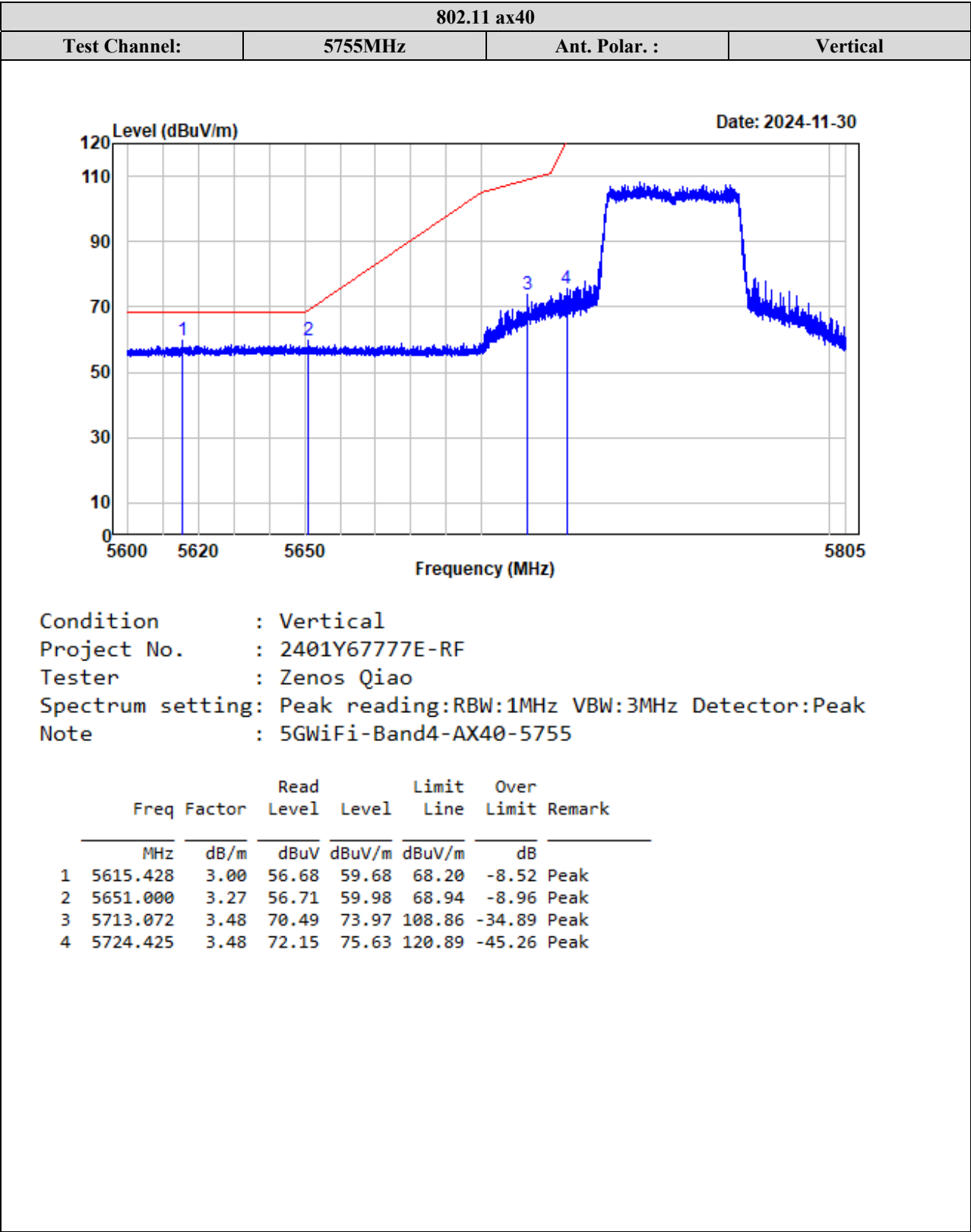
Note : 5GWiFi-Band4-AX20-5745

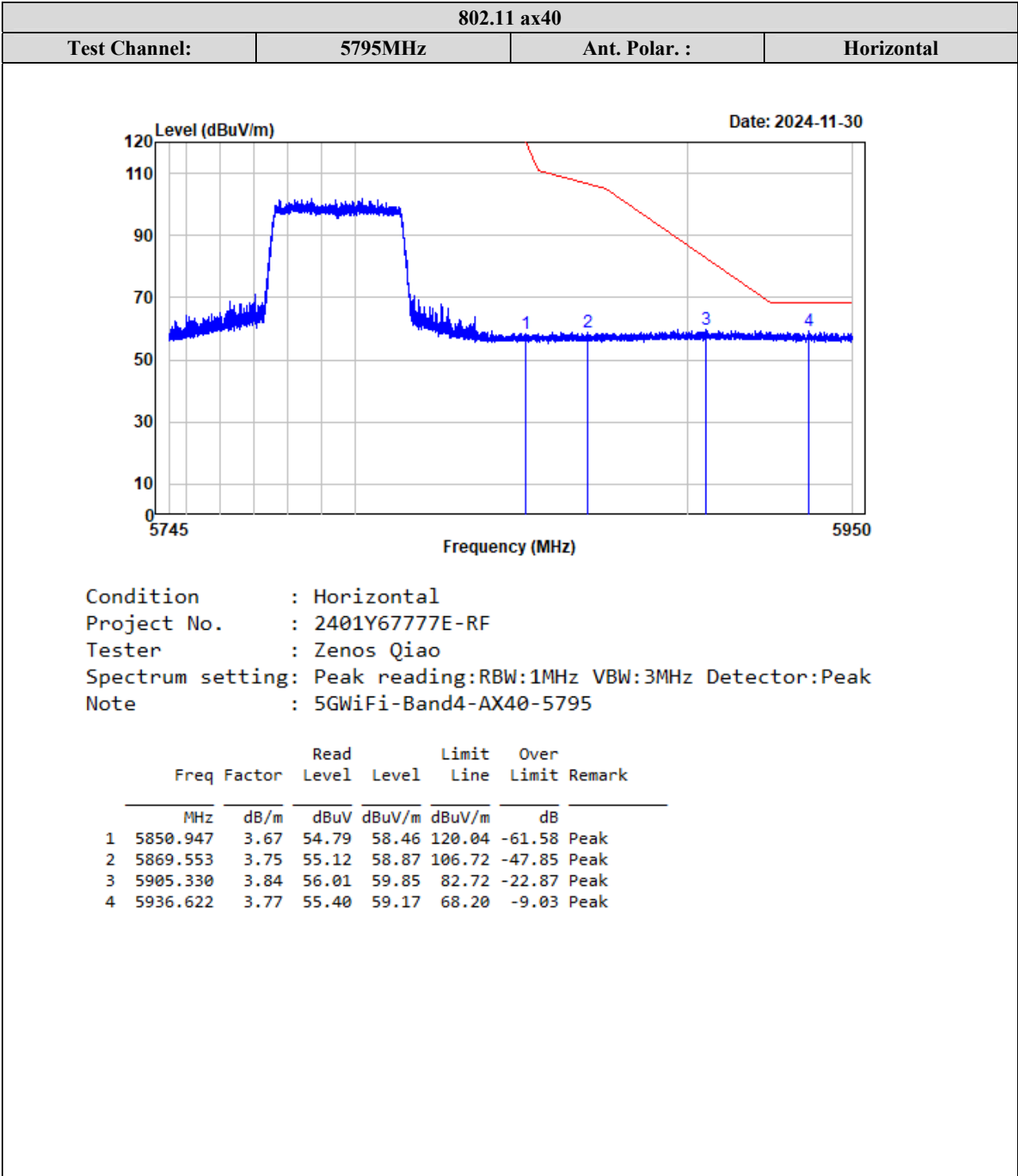
	Freq	Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5616.814	3.01	56.23	59.24	68.20	-8.96	Peak
2	5699.057	3.45	58.89	62.34	104.50	-42.16	Peak
3	5719.363	3.48	65.23	68.71	110.62	-41.91	Peak
4	5724.451	3.48	73.30	76.78	120.95	-44.17	Peak

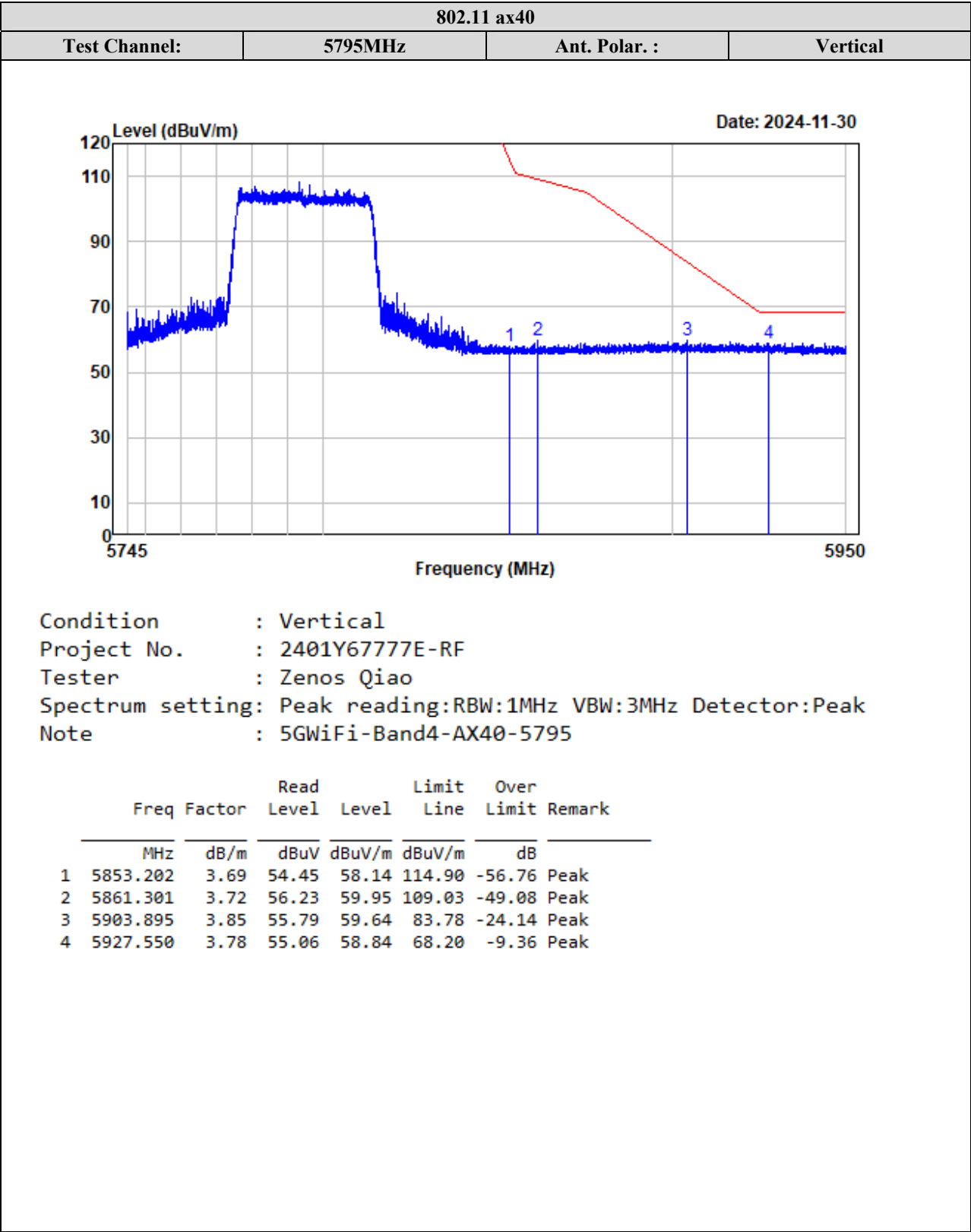






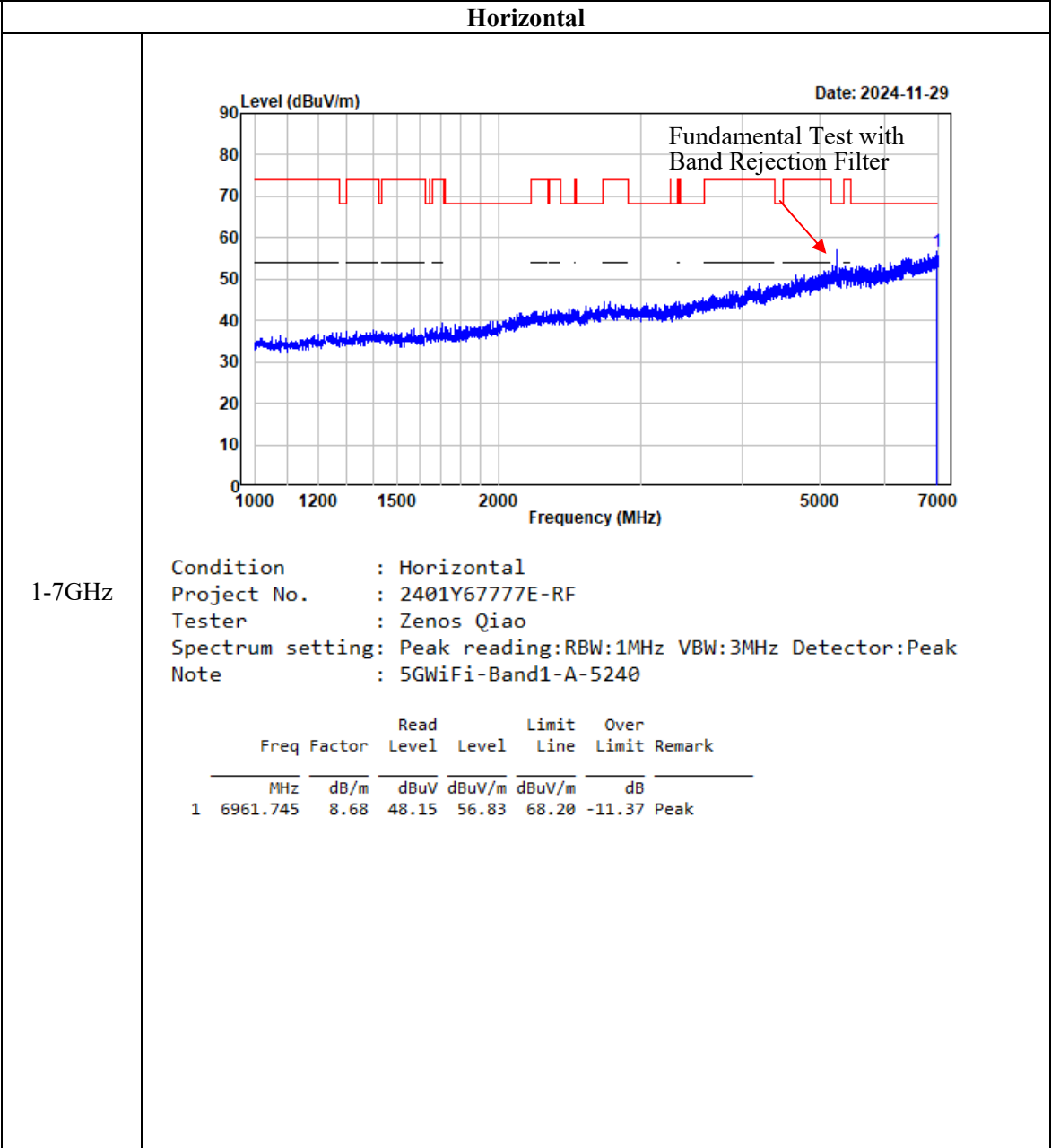




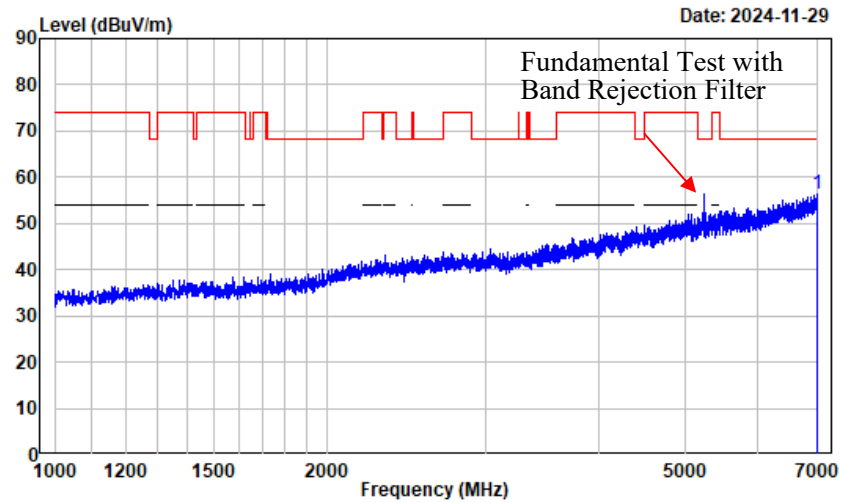


1-18GHz (Listed with the worst harmonic margin test plots):

5150-5250 MHz:
802.11a



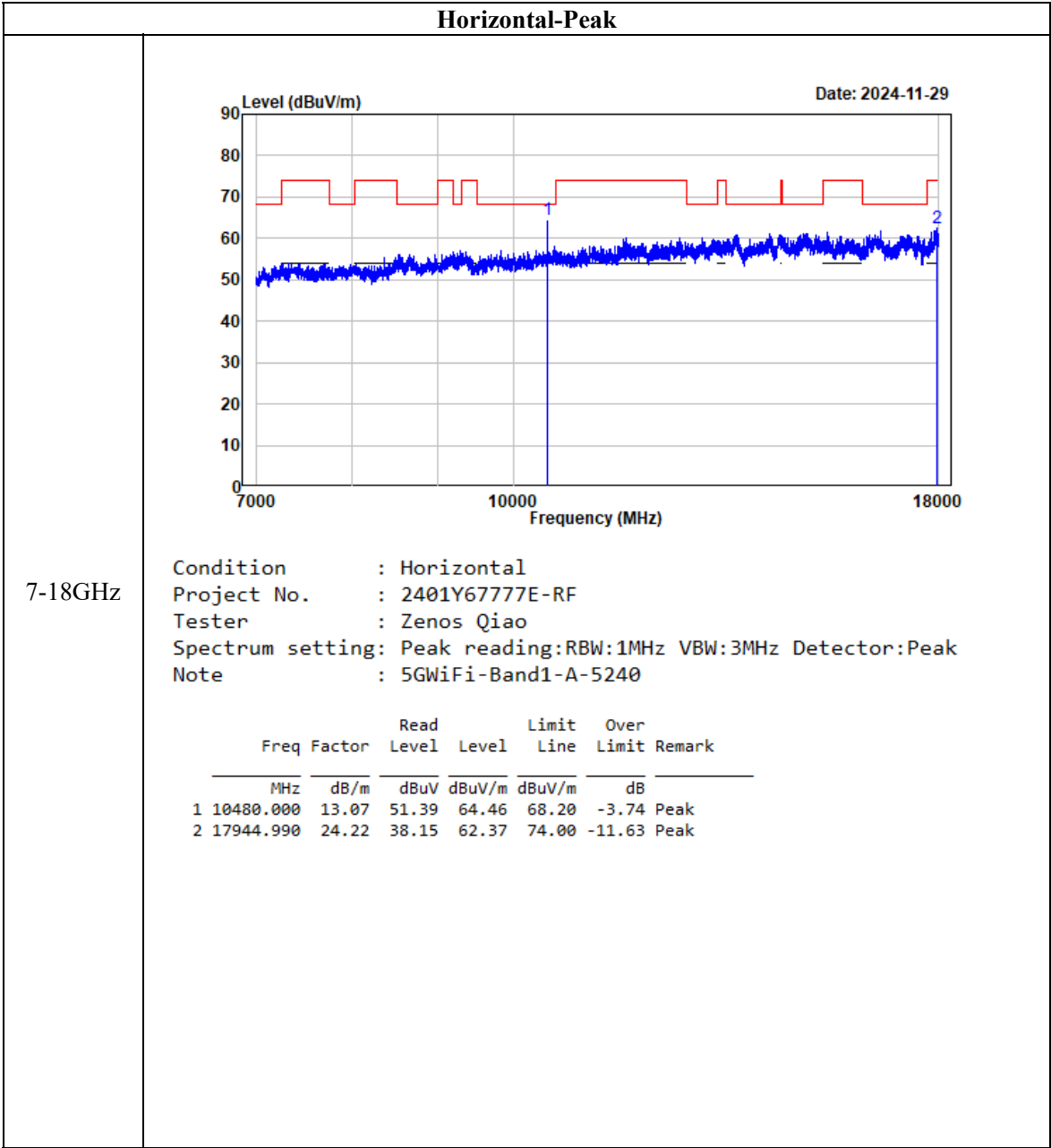
Vertical

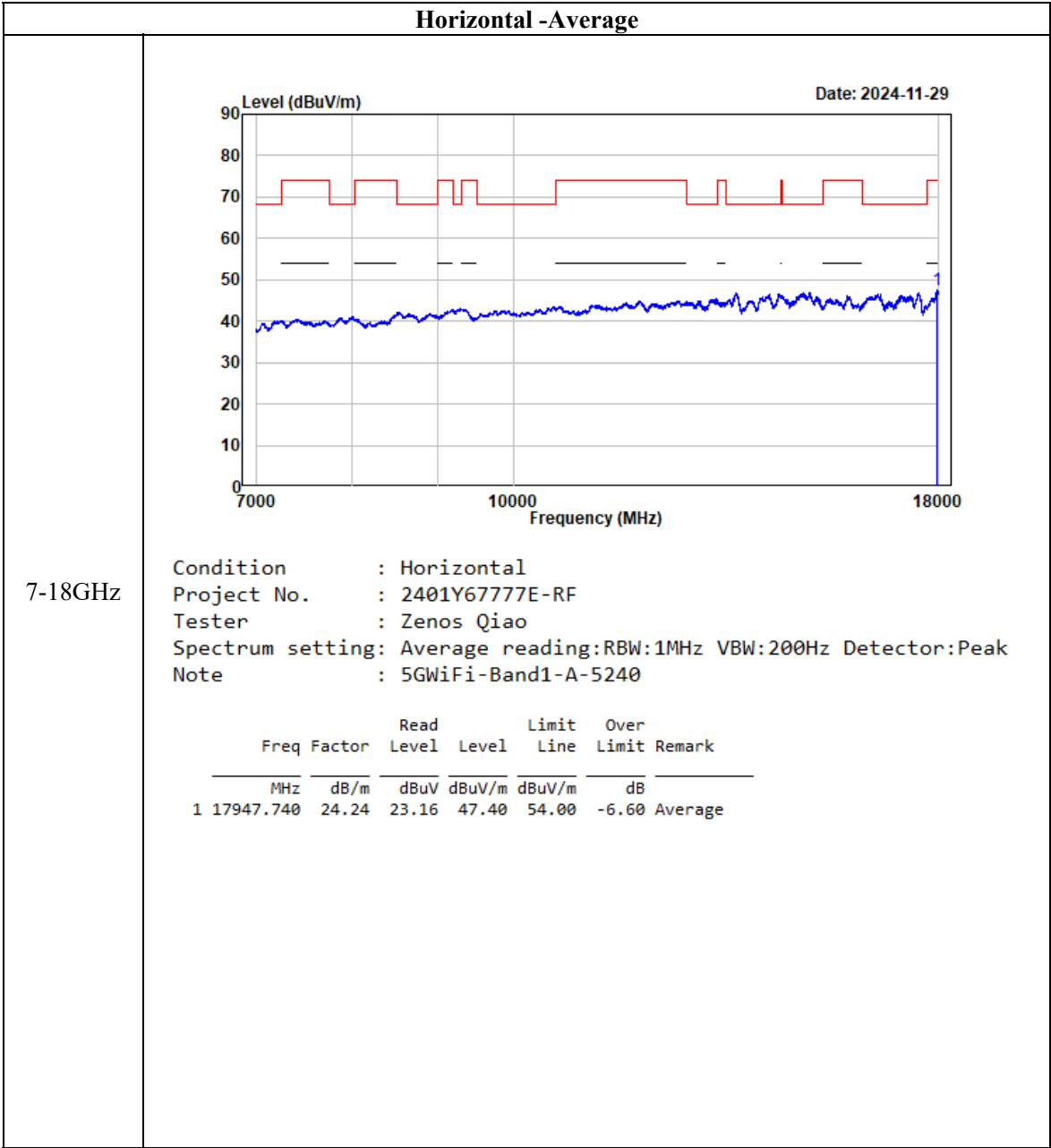


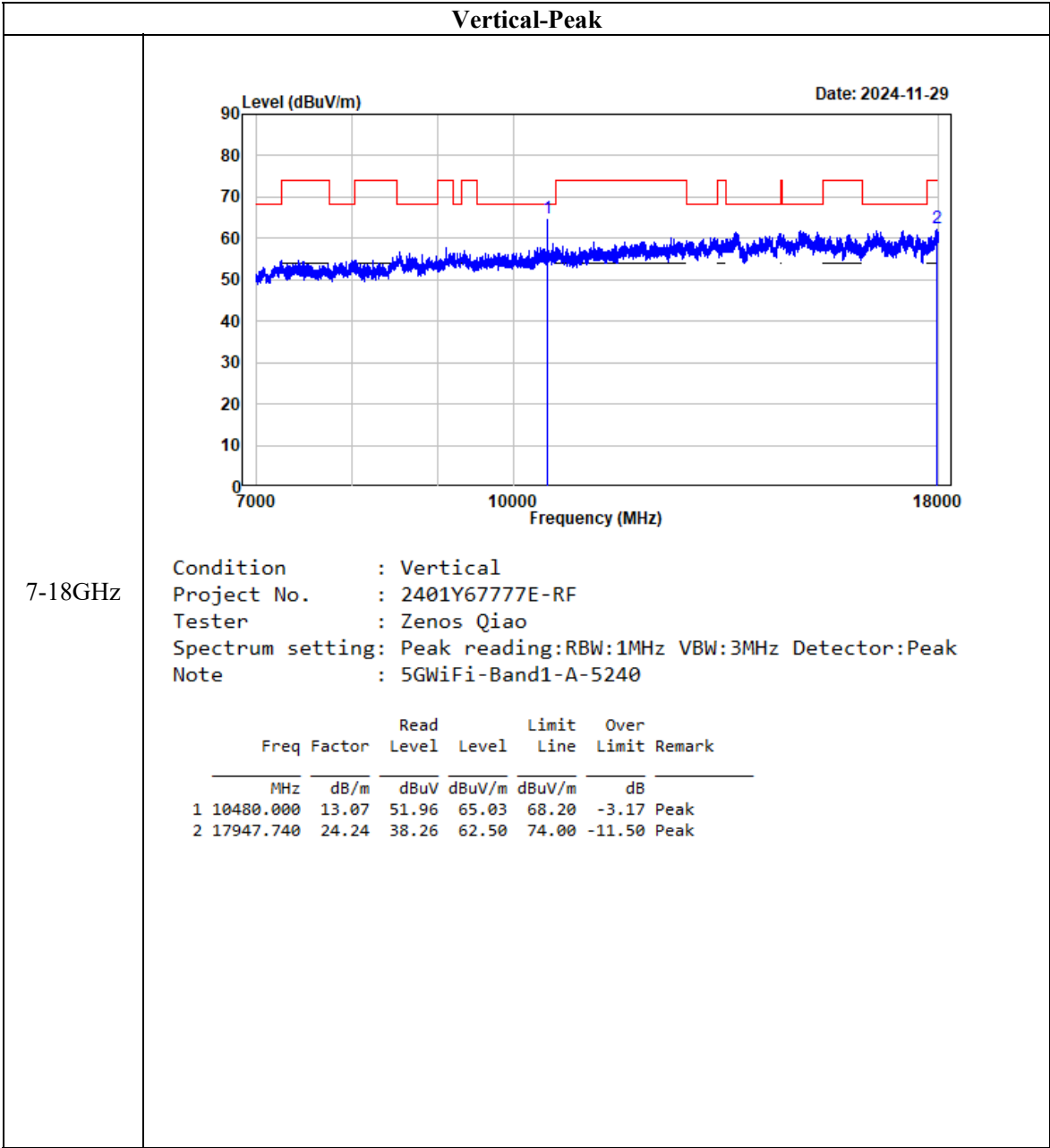
1-7GHz

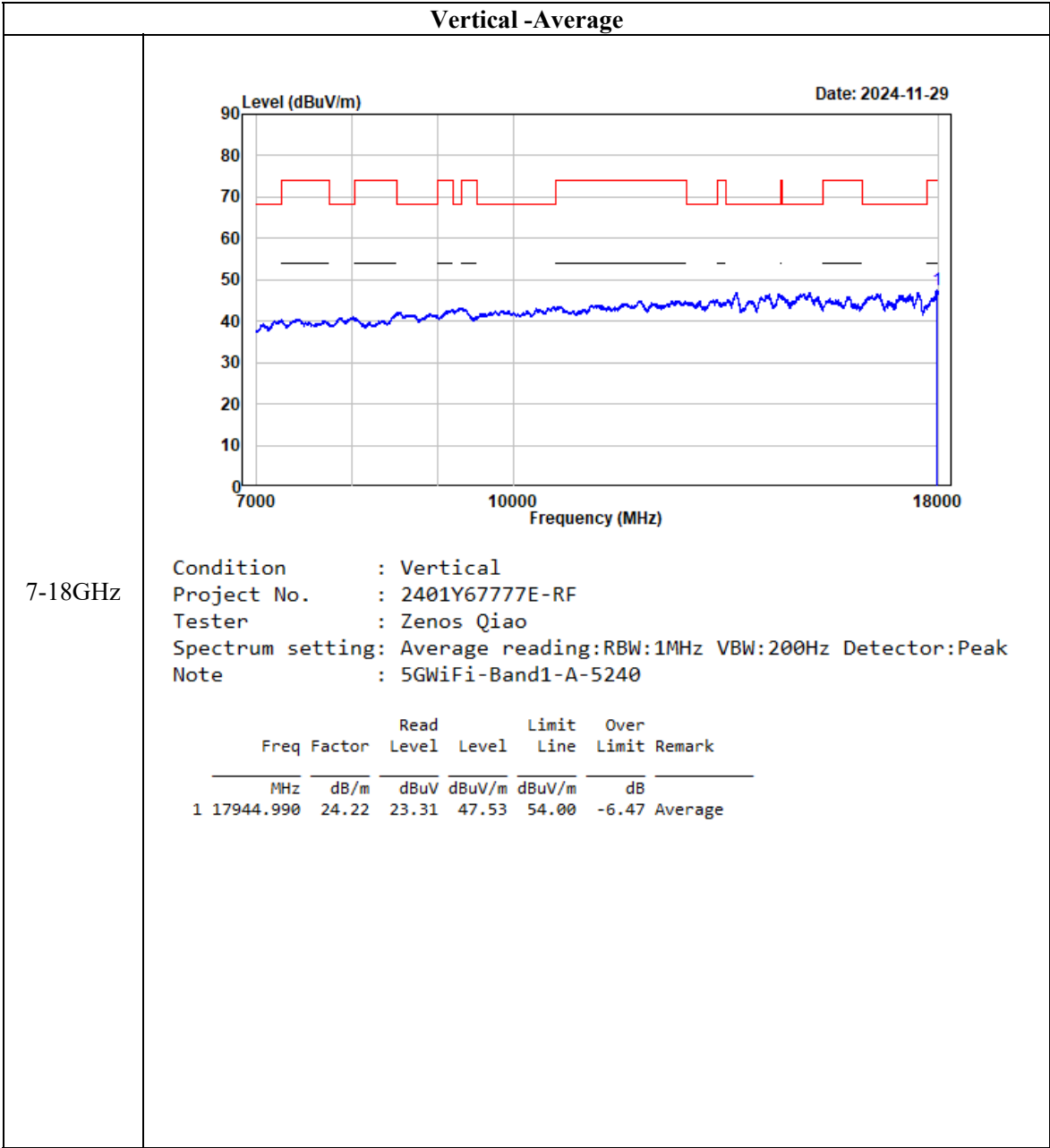
```
Condition      : Vertical
Project No.    : 2401Y67777E-RF
Tester        : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note          : 5GWiFi-Band1-A-5240
```

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6988.749	8.63	47.89	56.52	68.20	-11.68	Peak

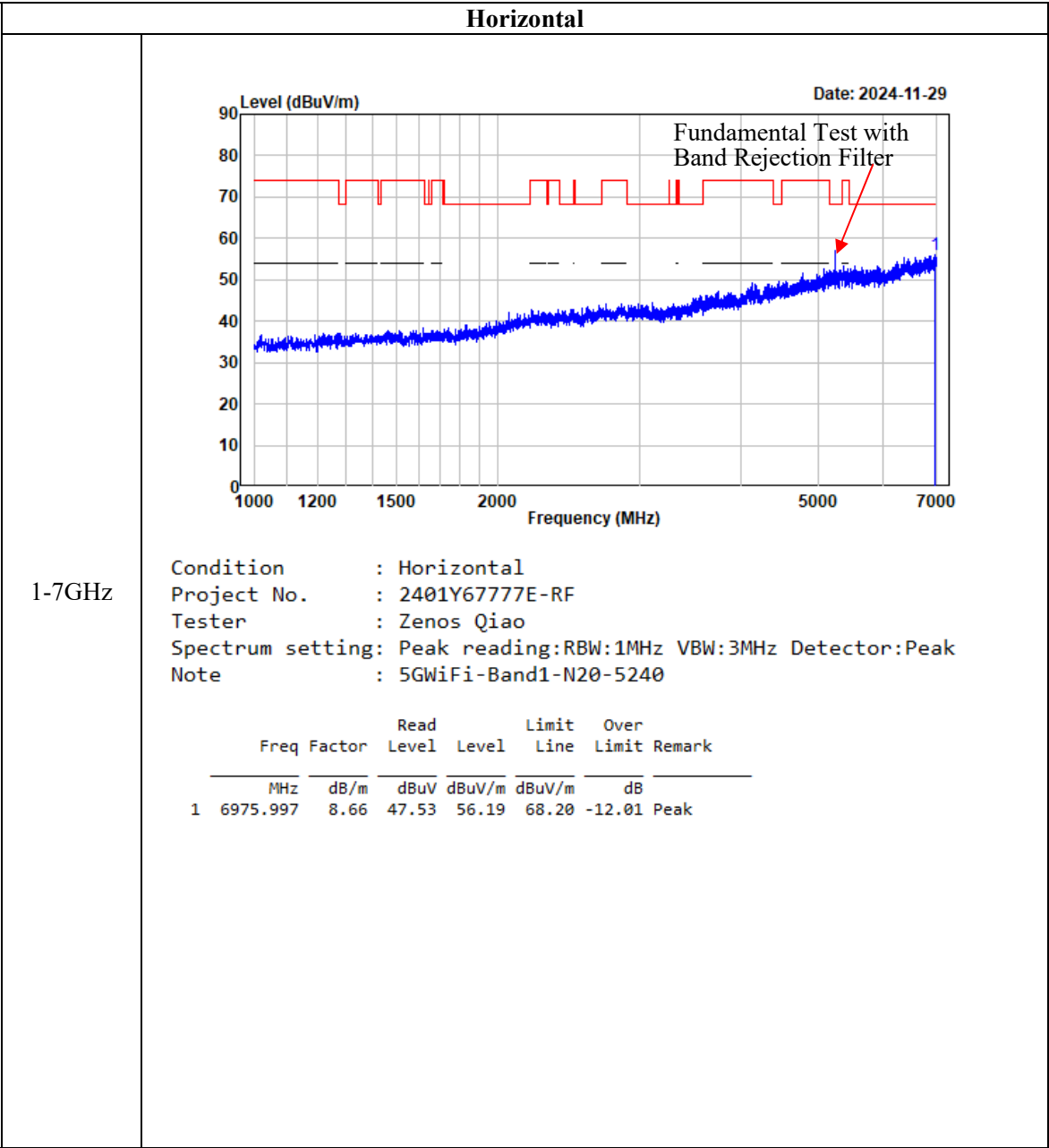


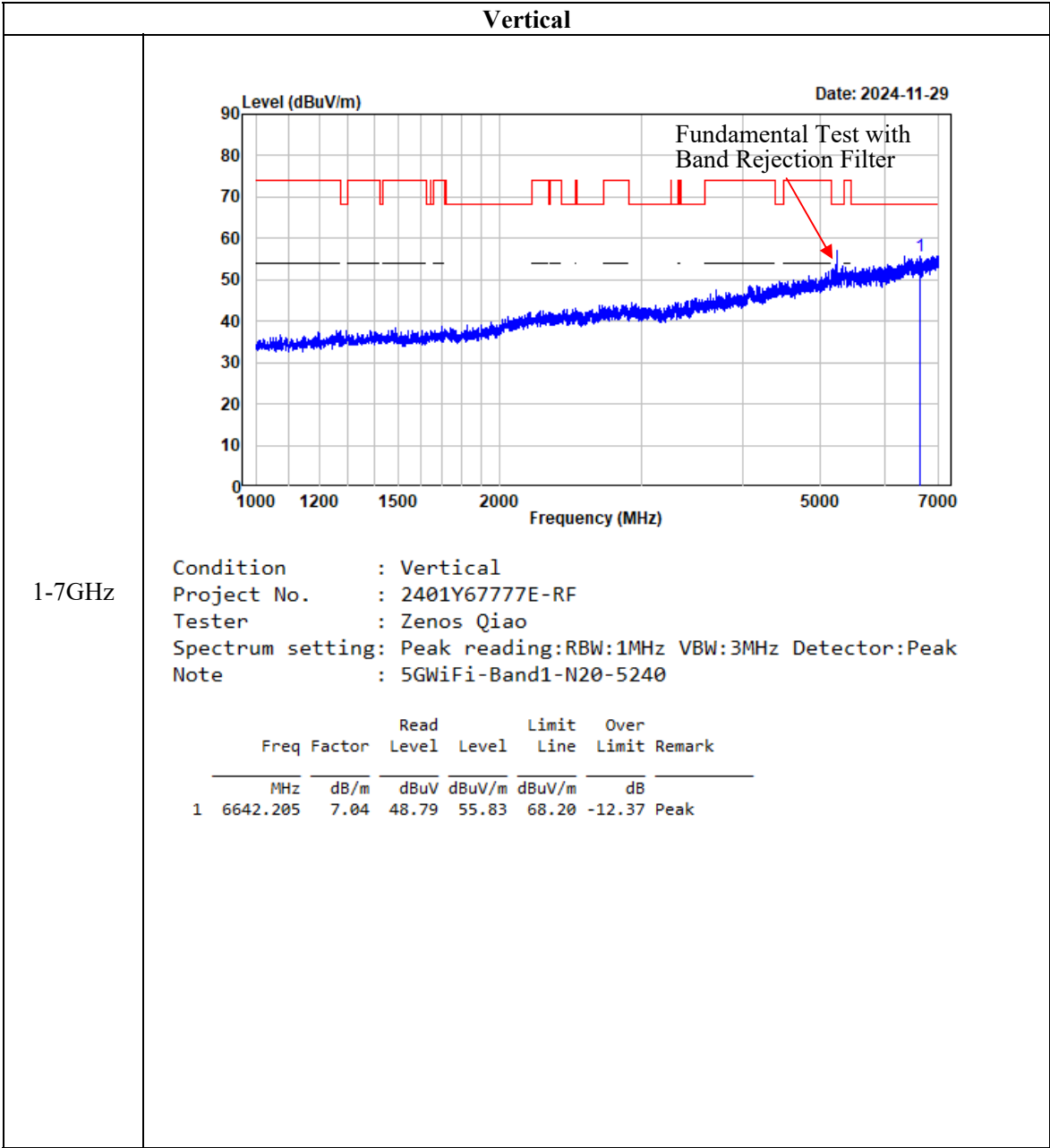


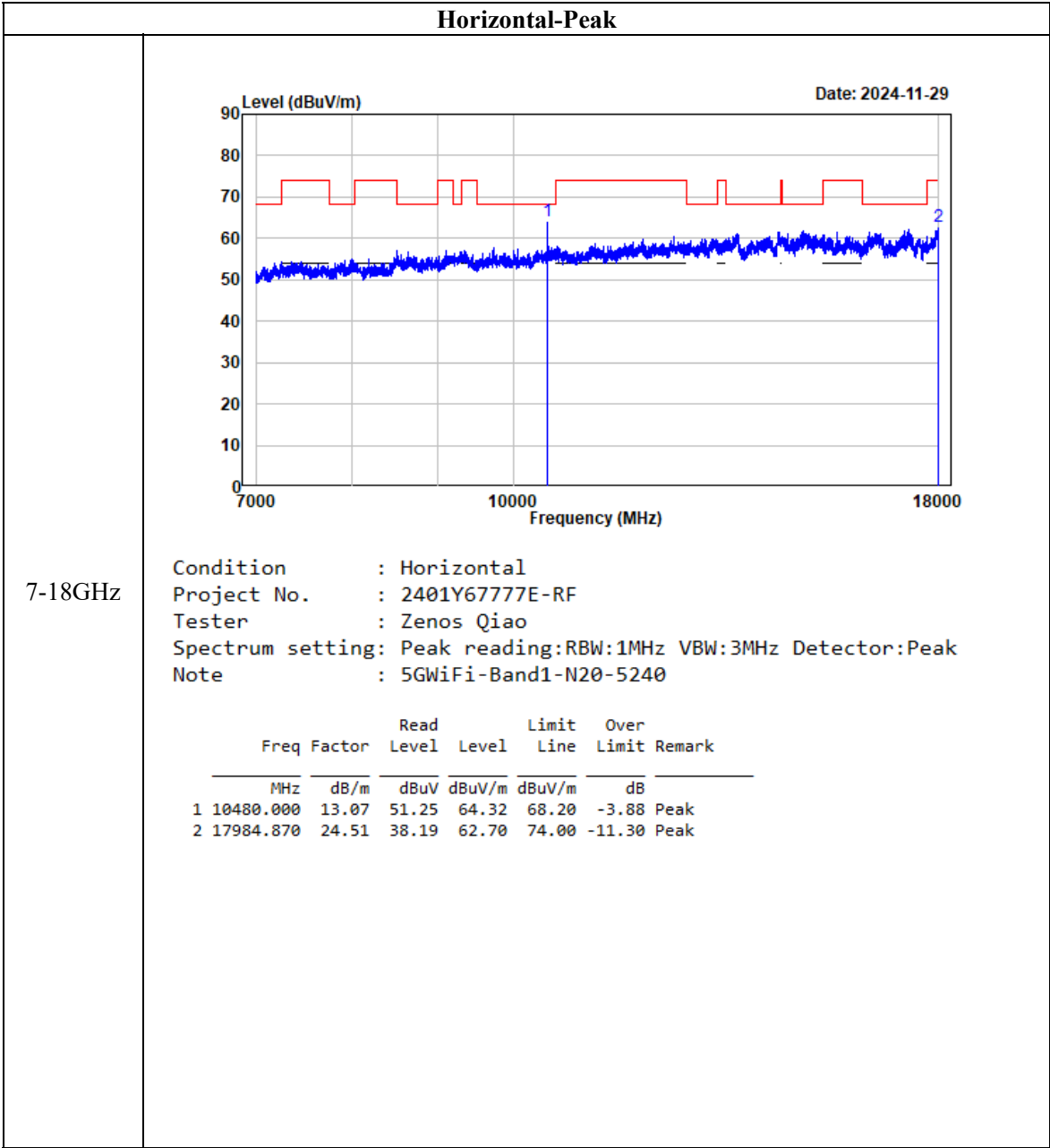


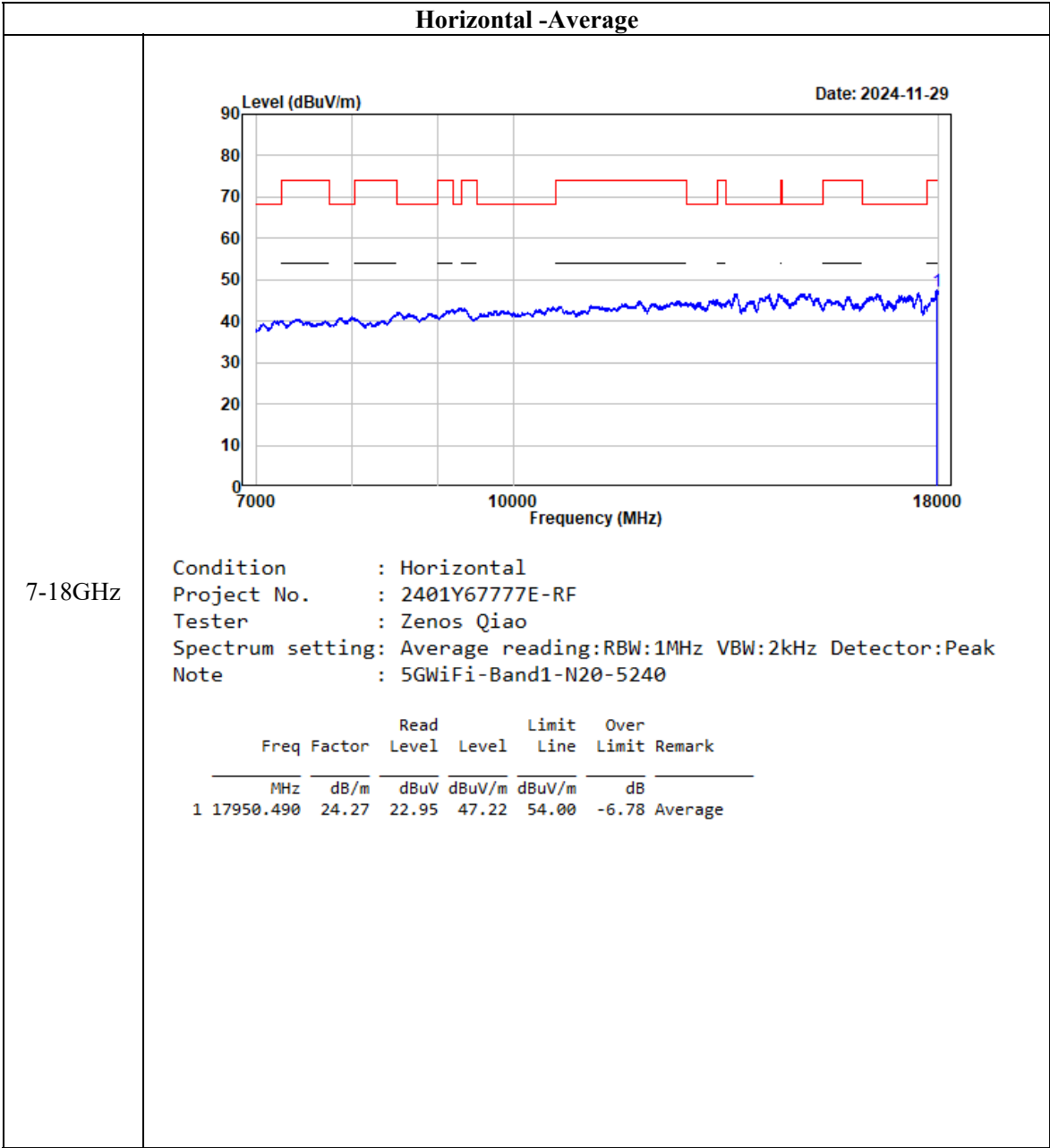


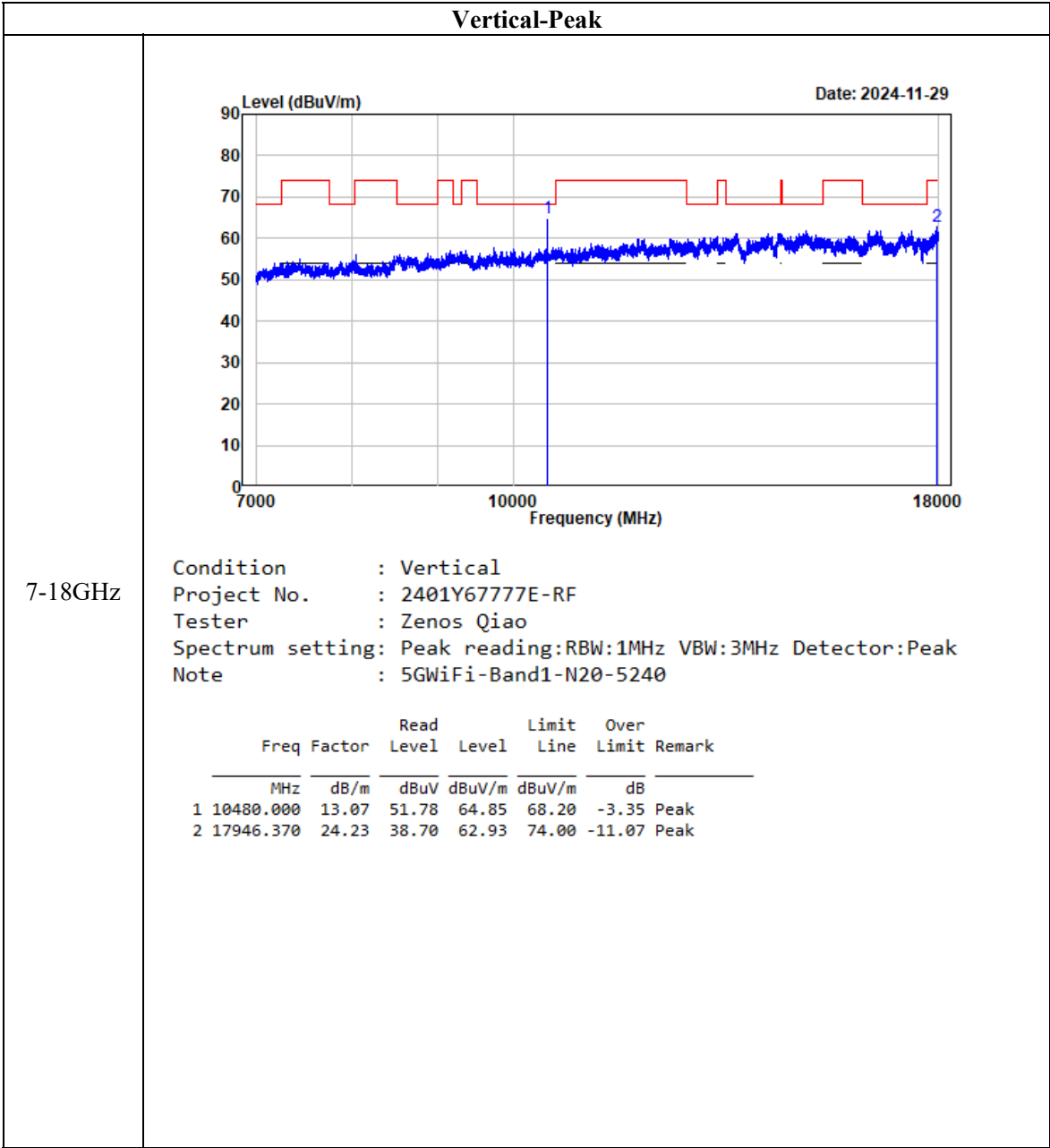
802.11 n20

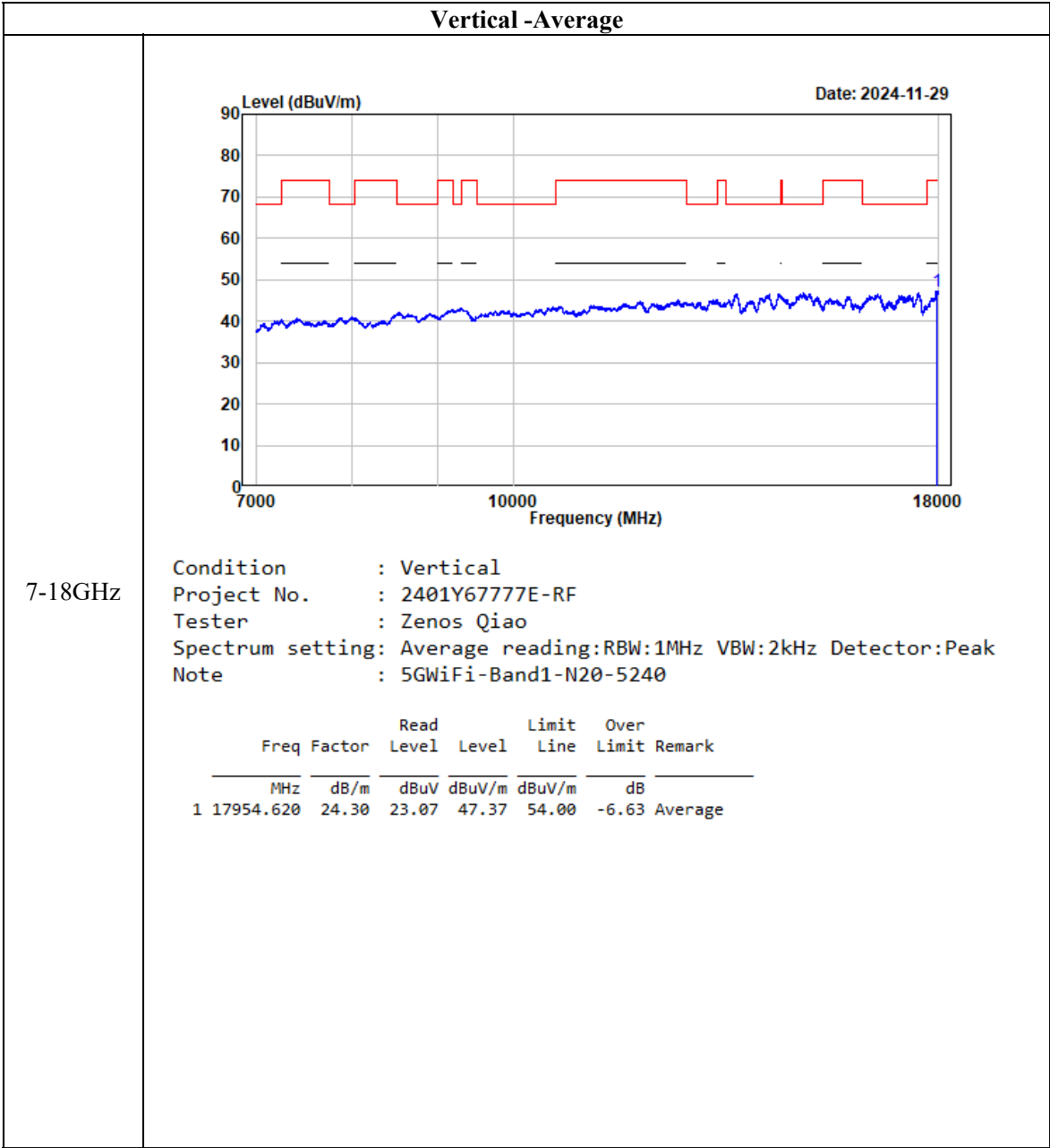




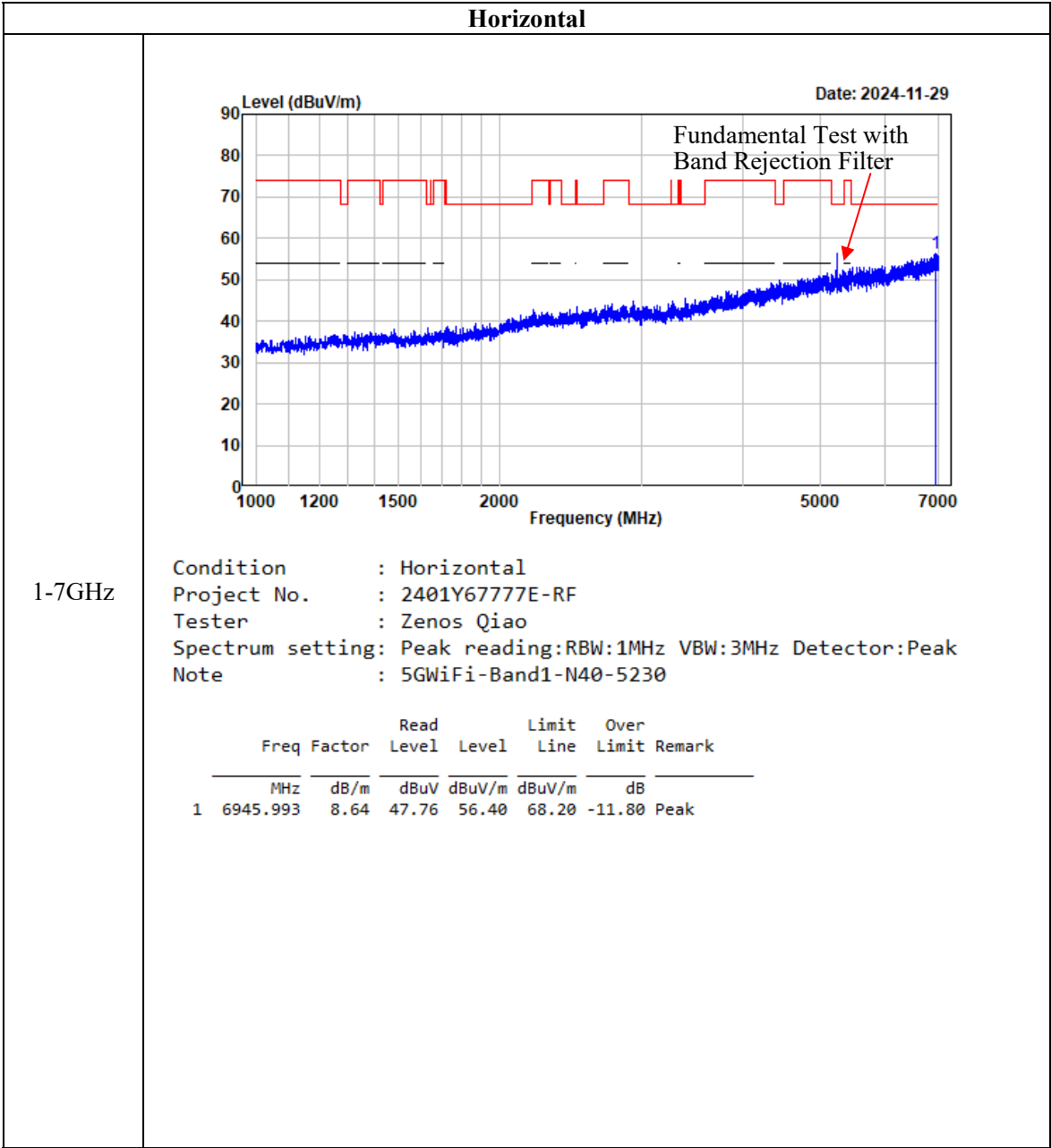


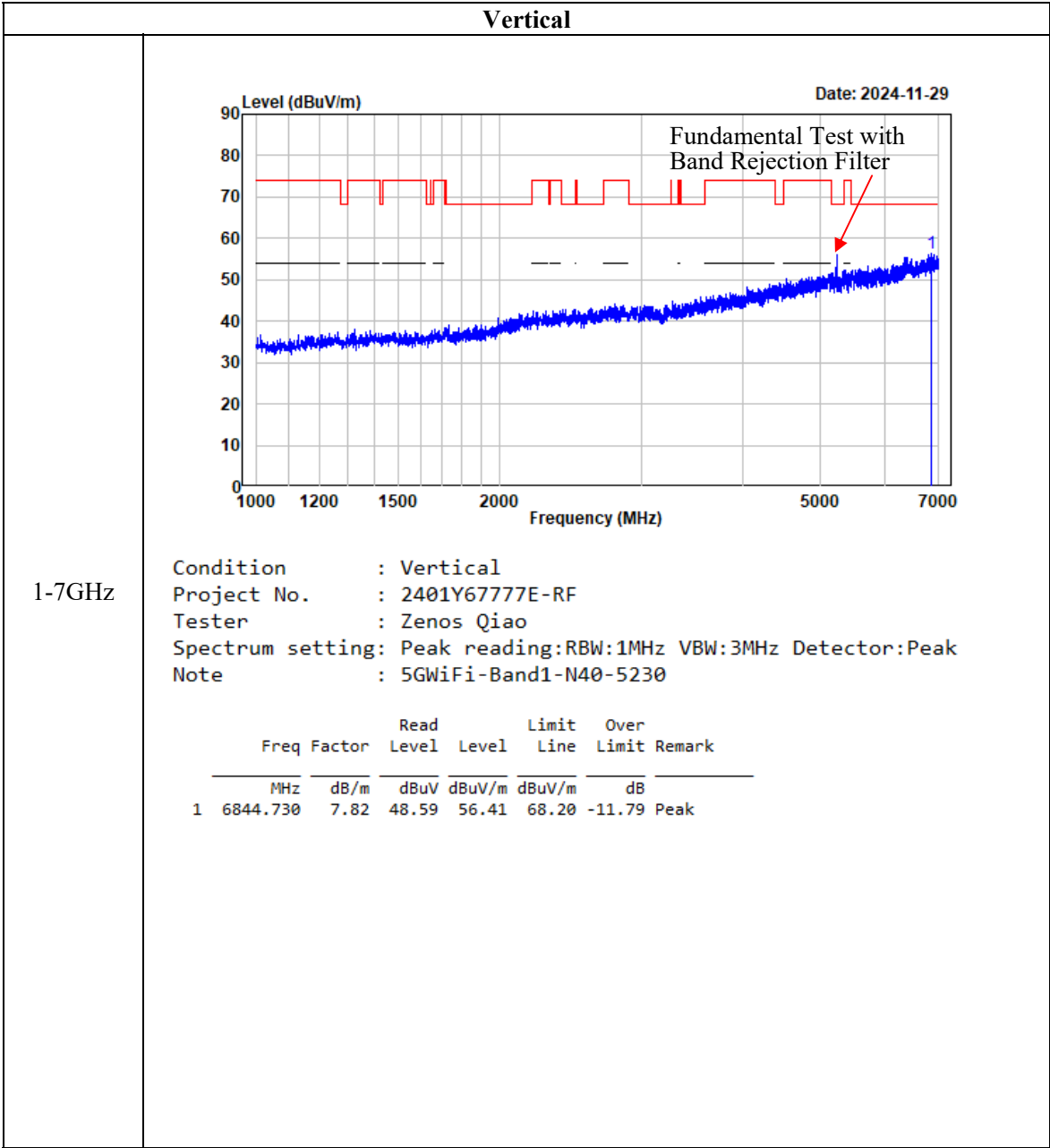


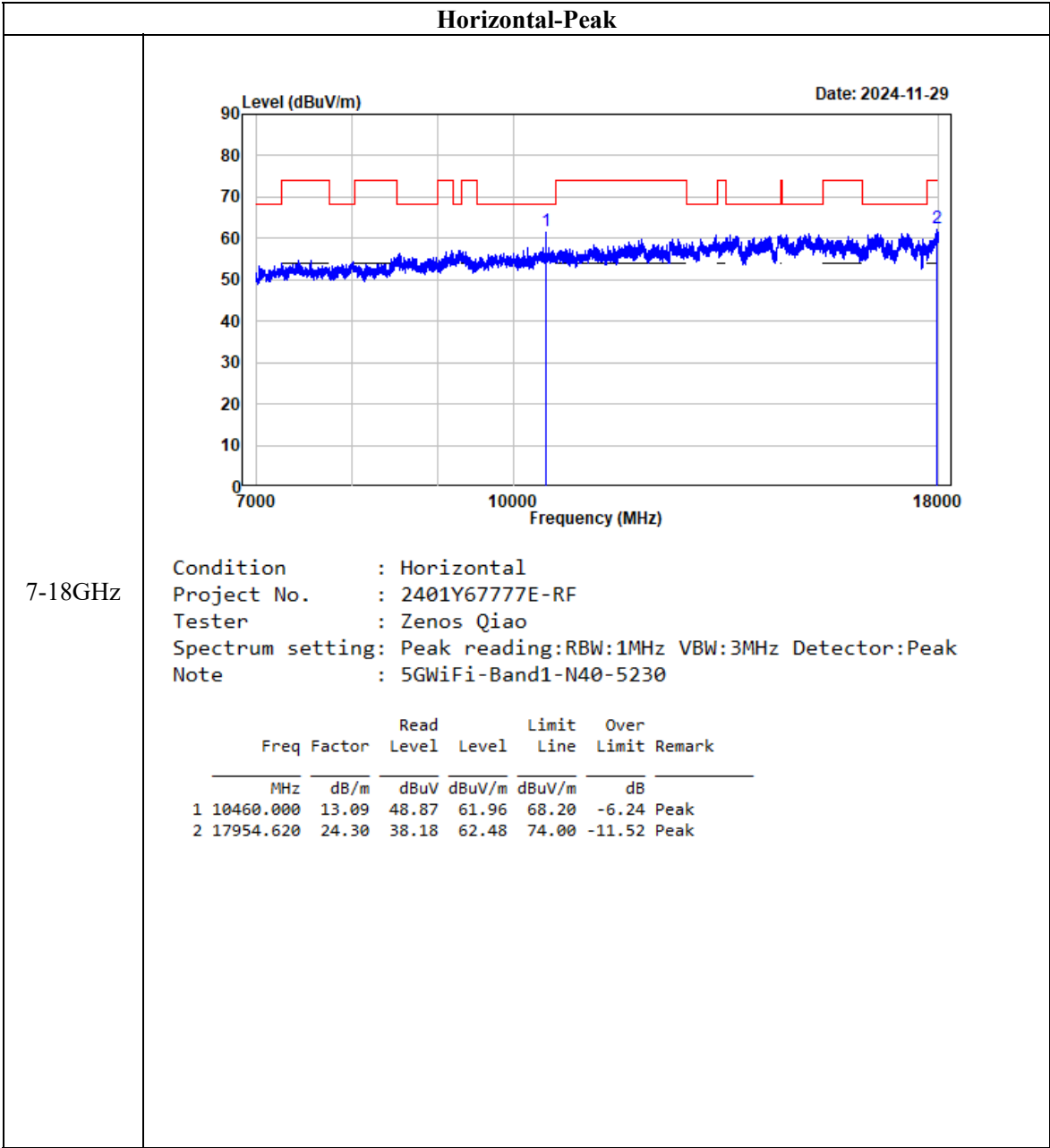


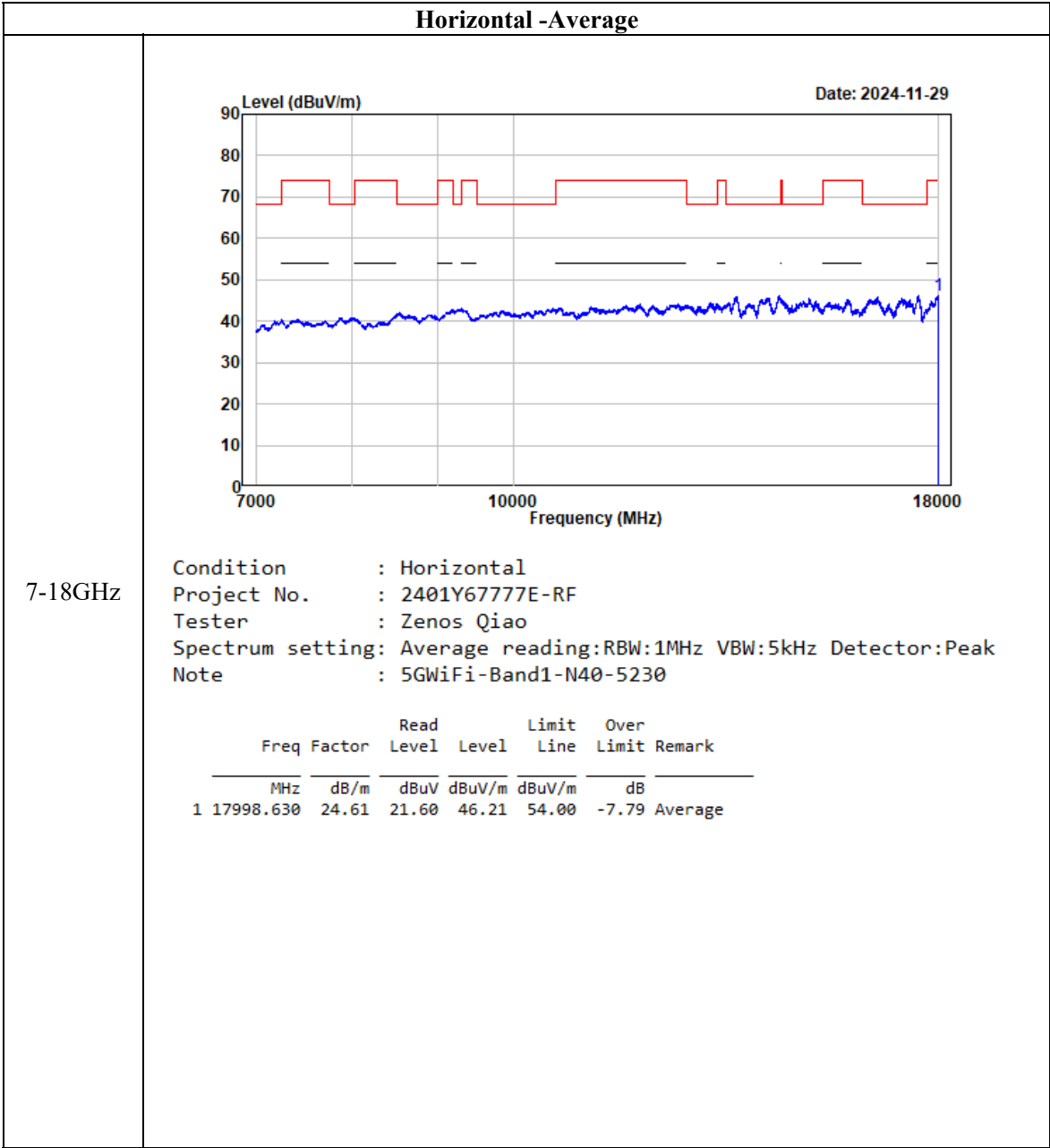


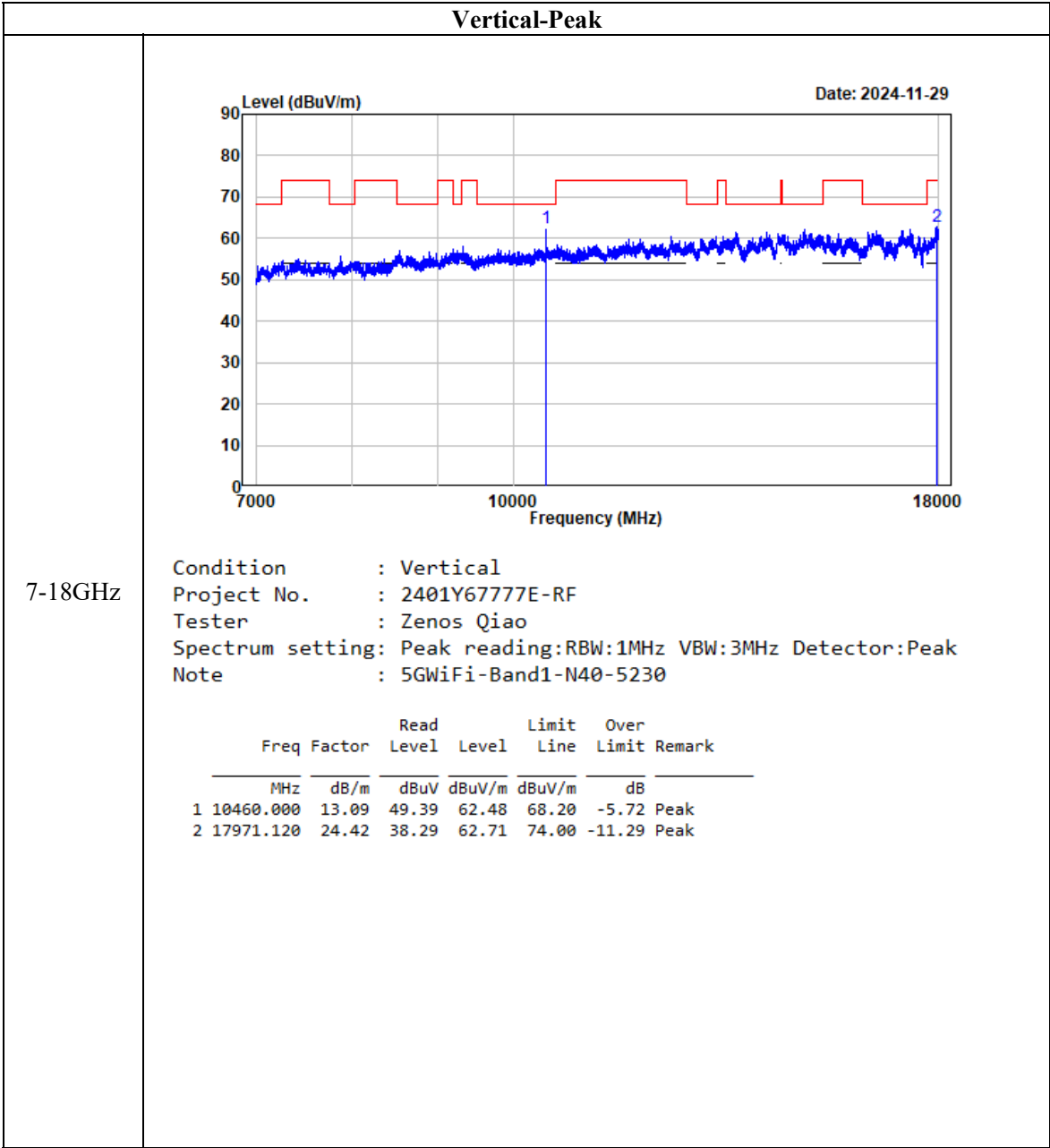
802.11 n40

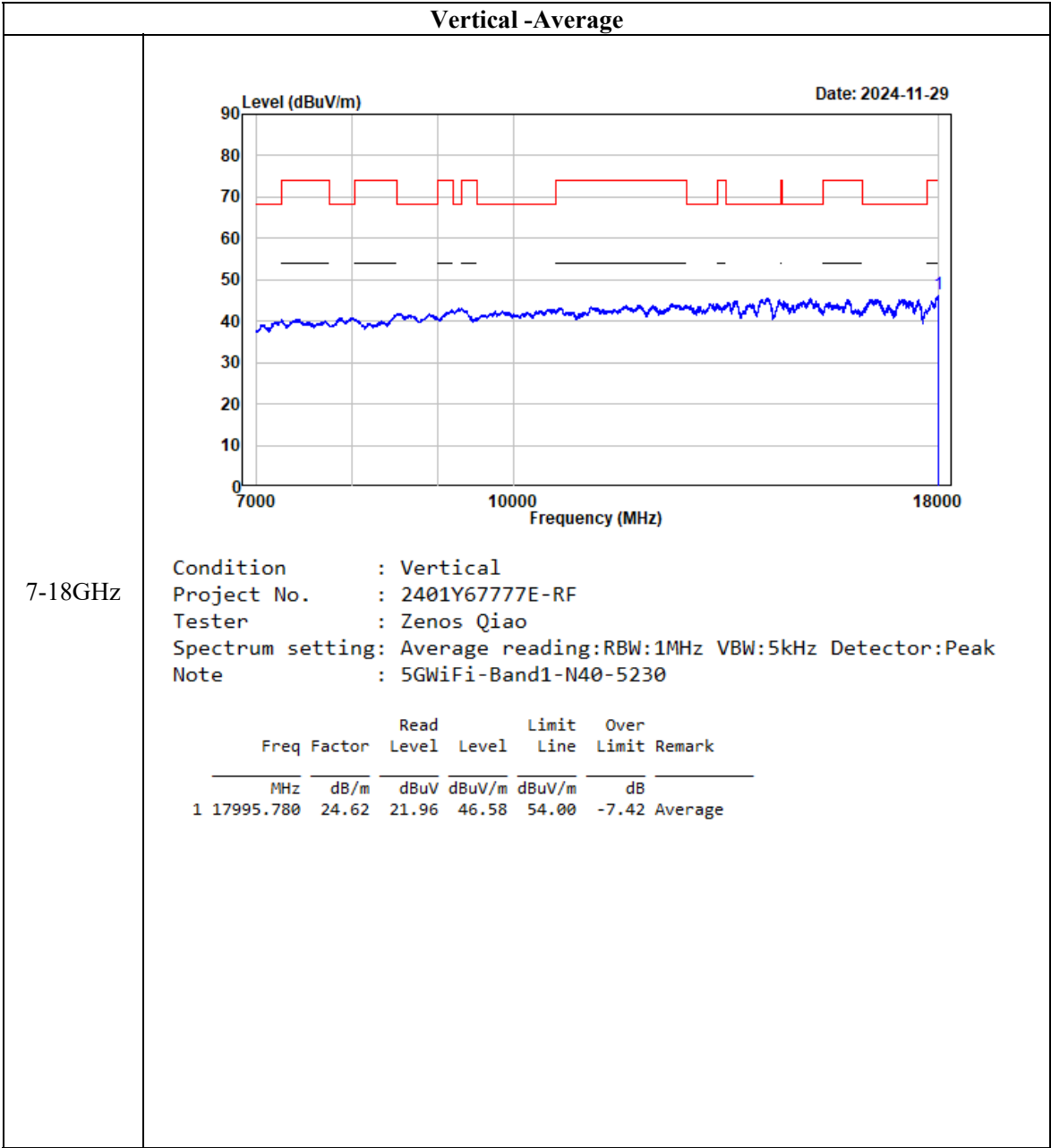




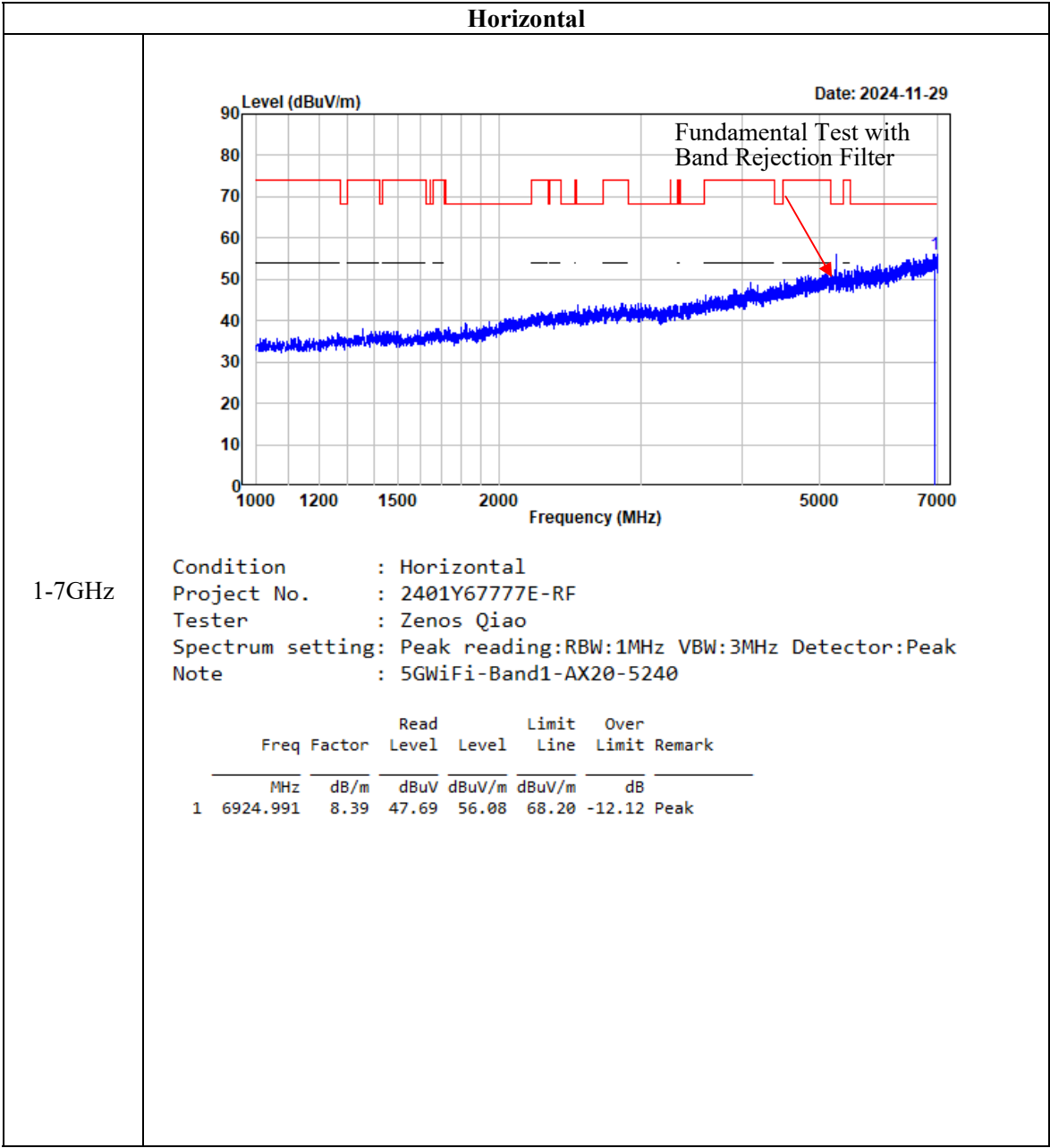


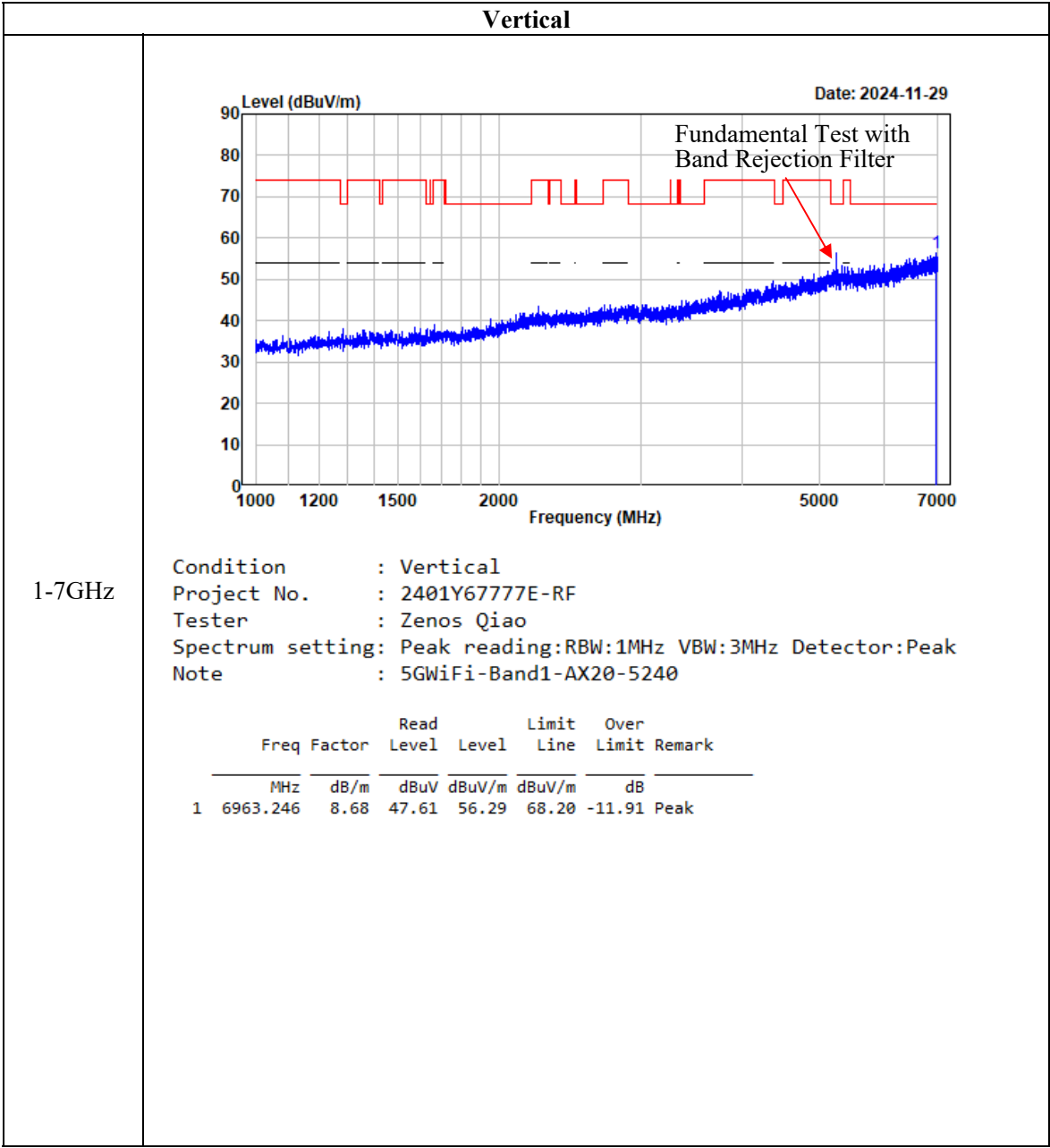


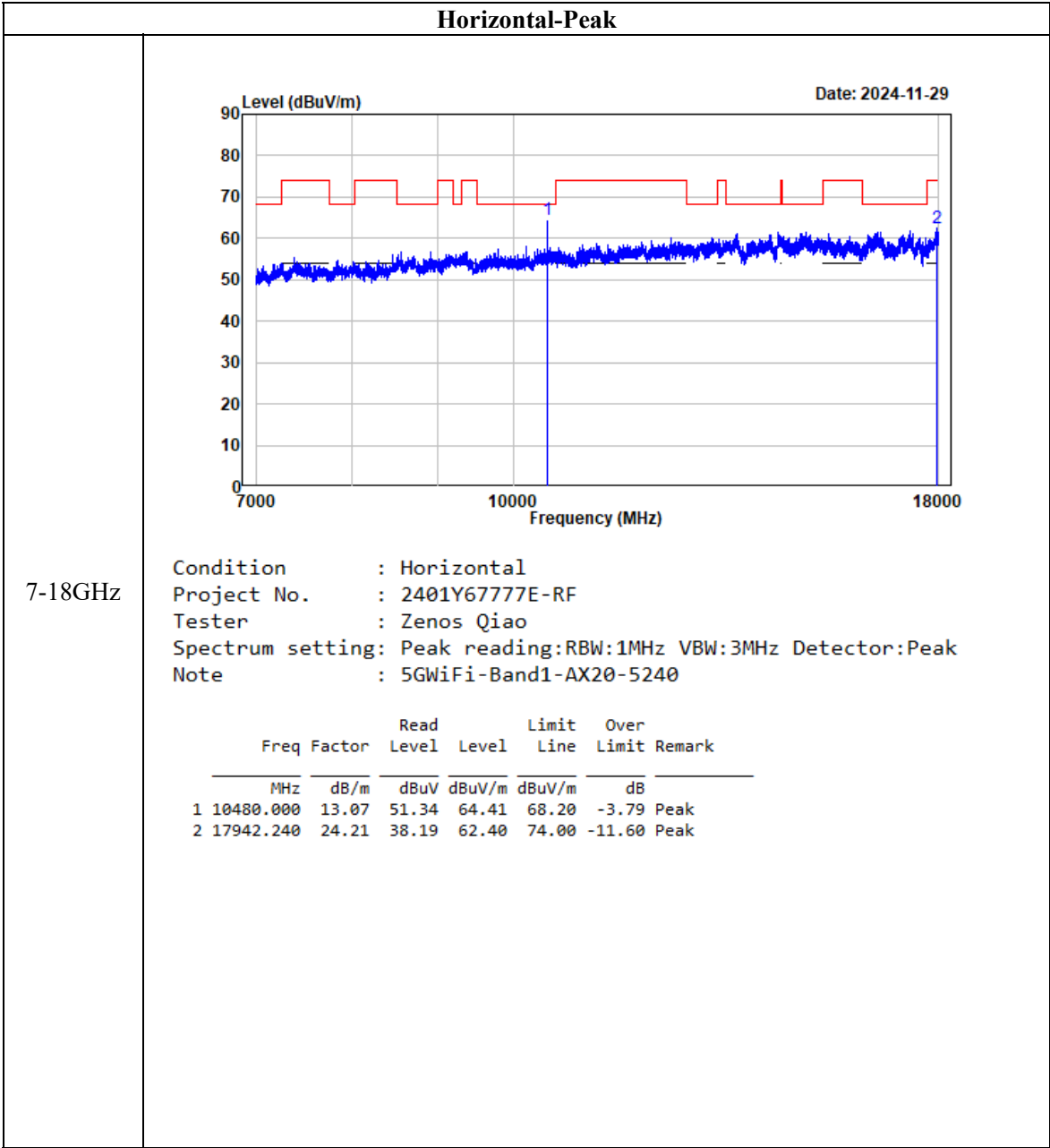


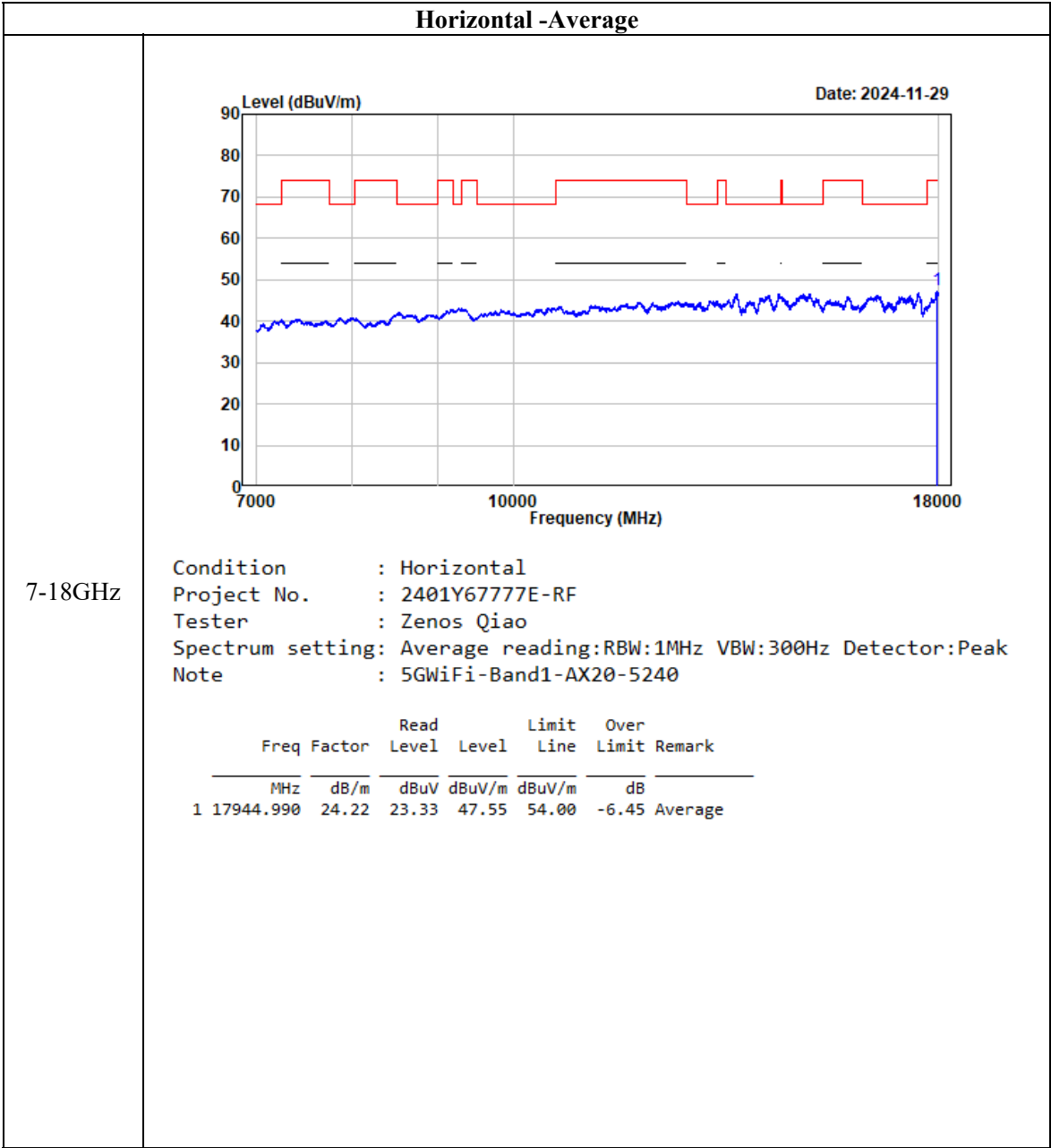


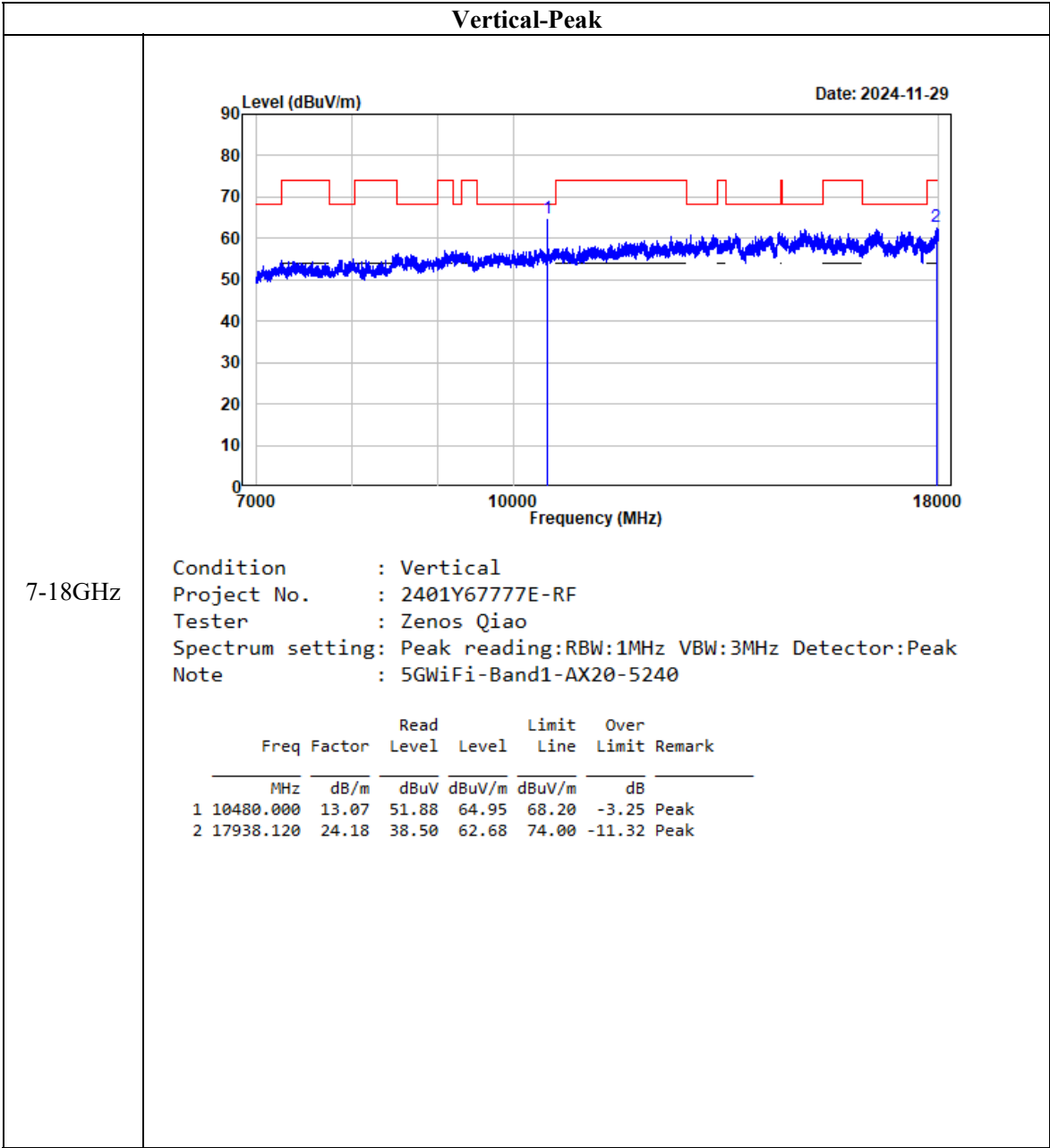
802.11 ax20

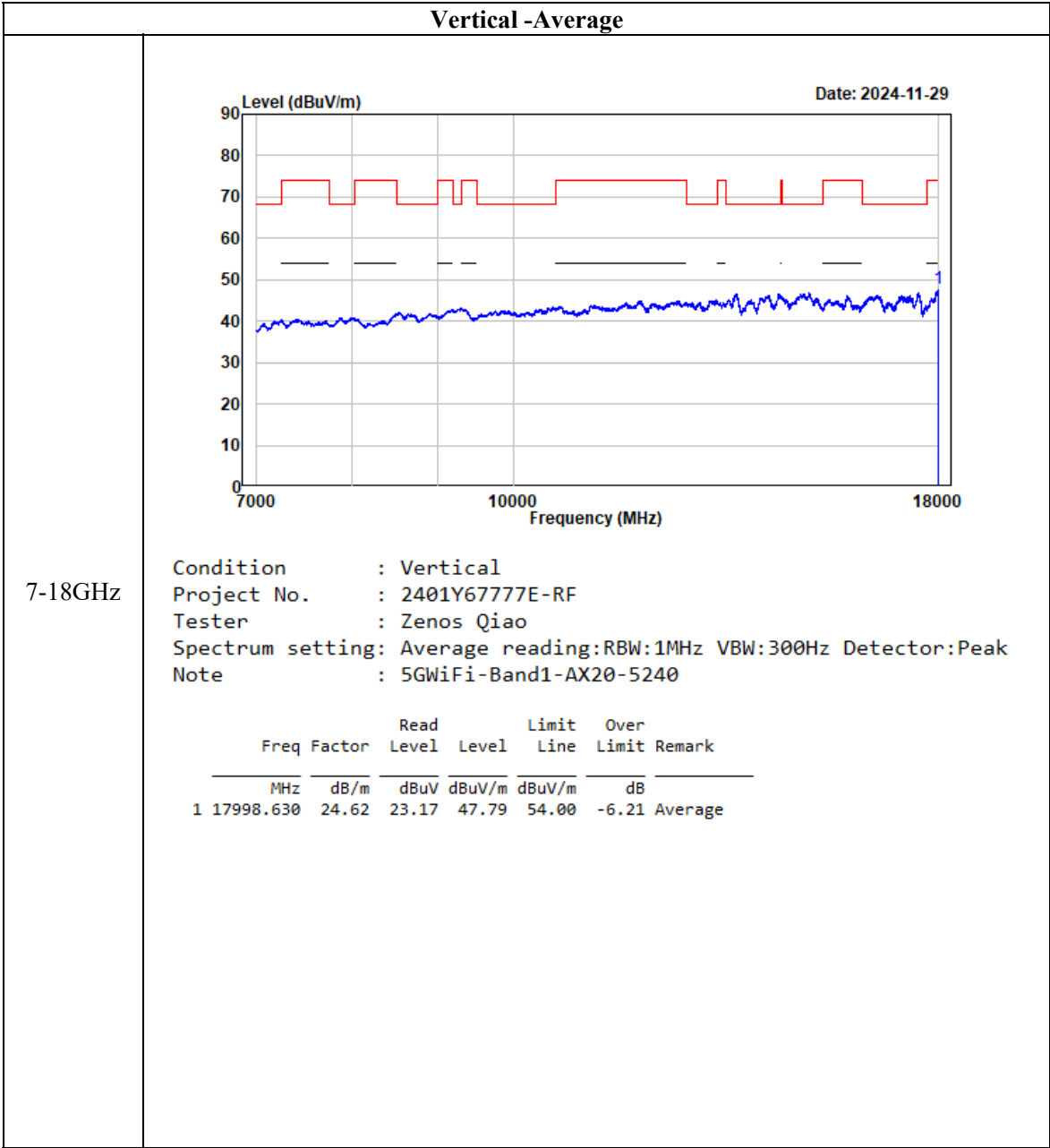




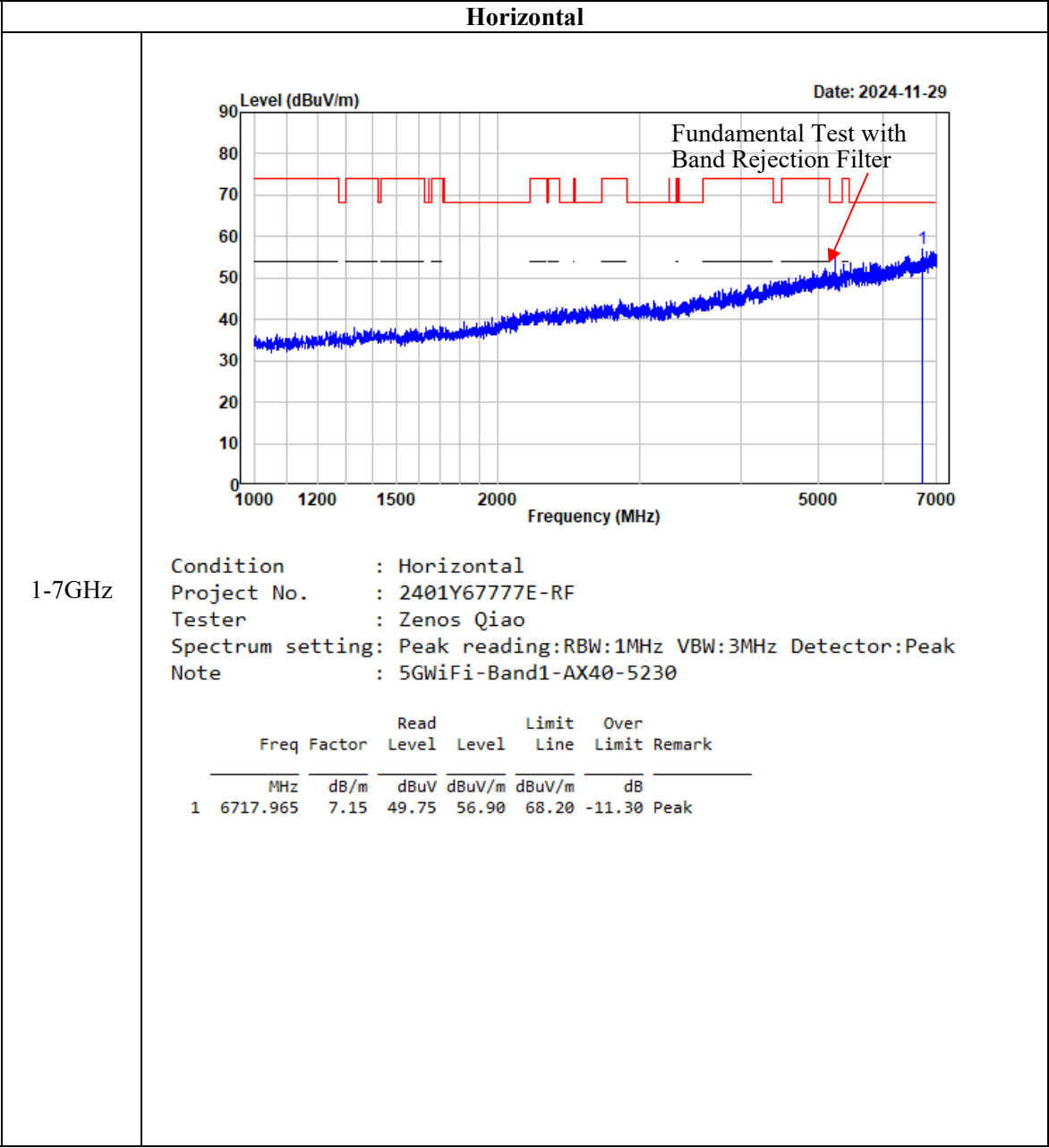


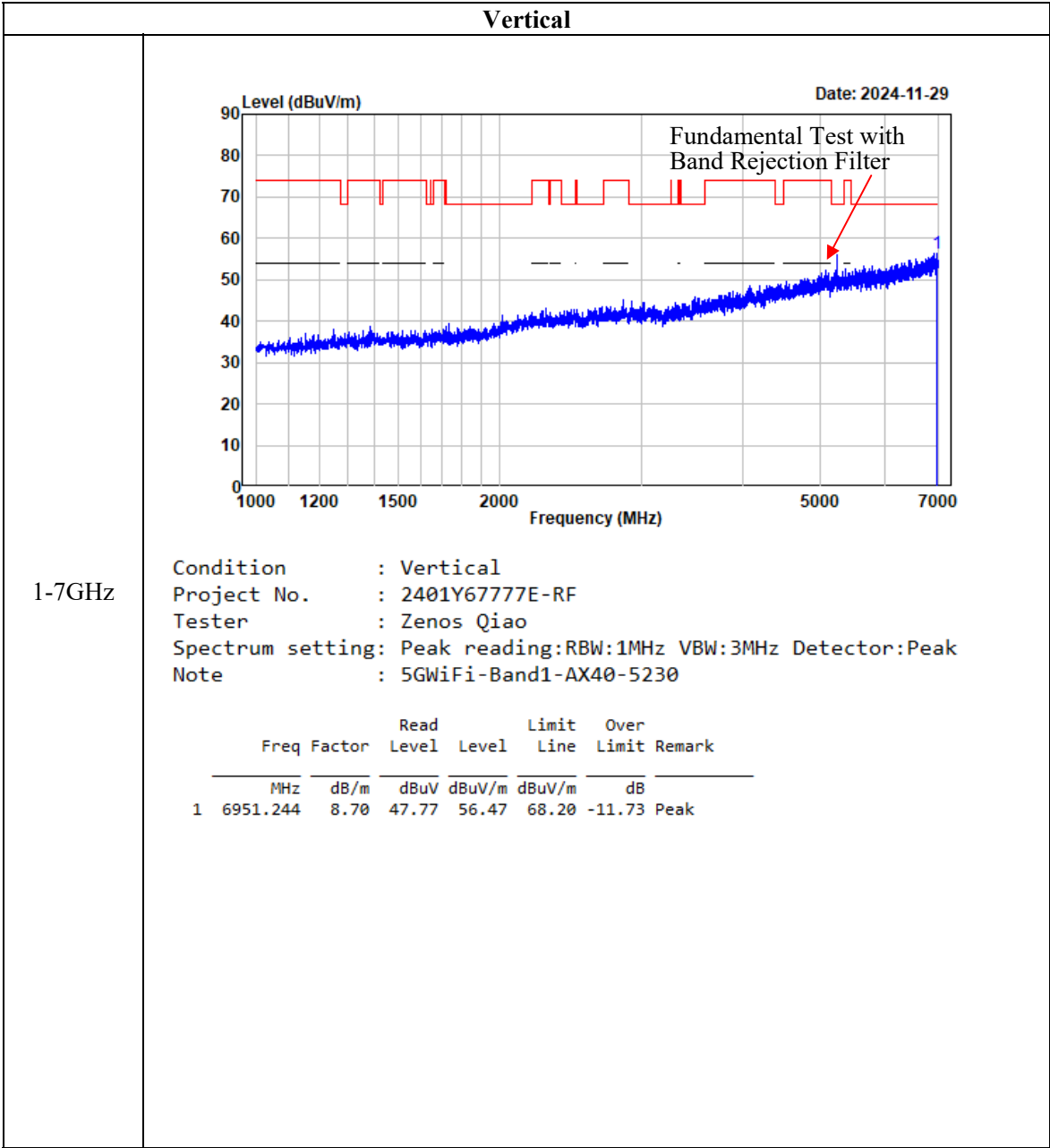


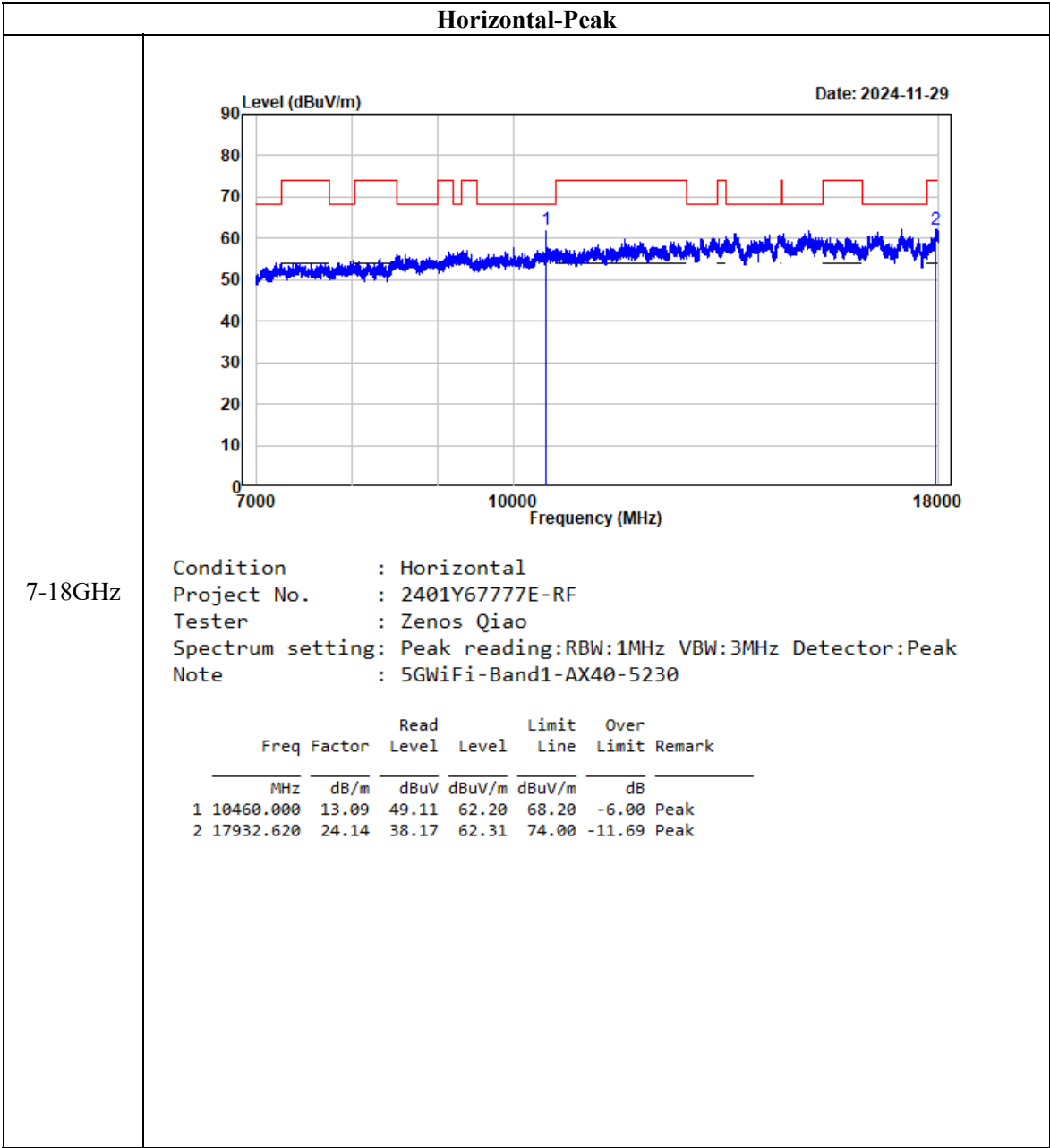


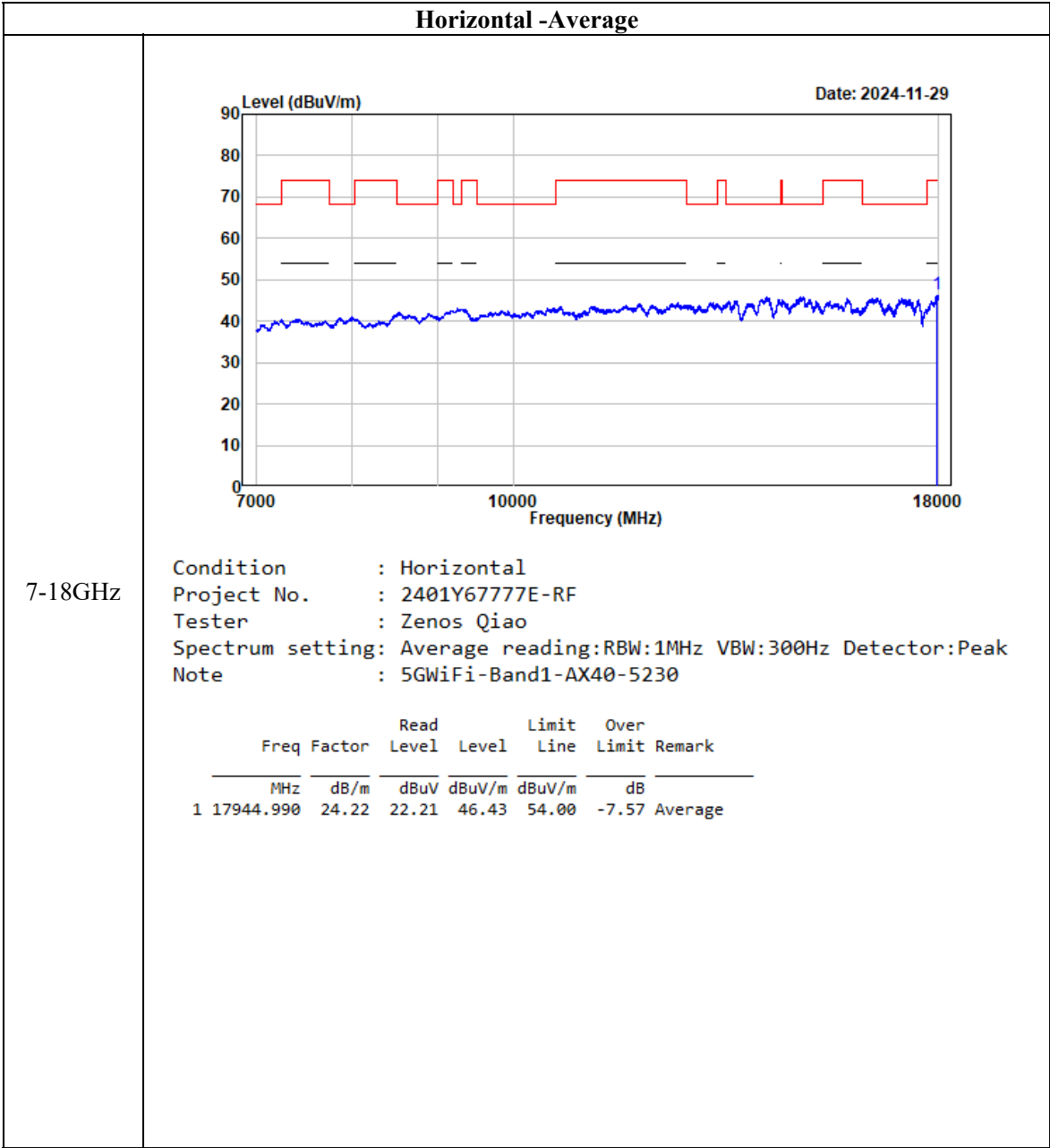


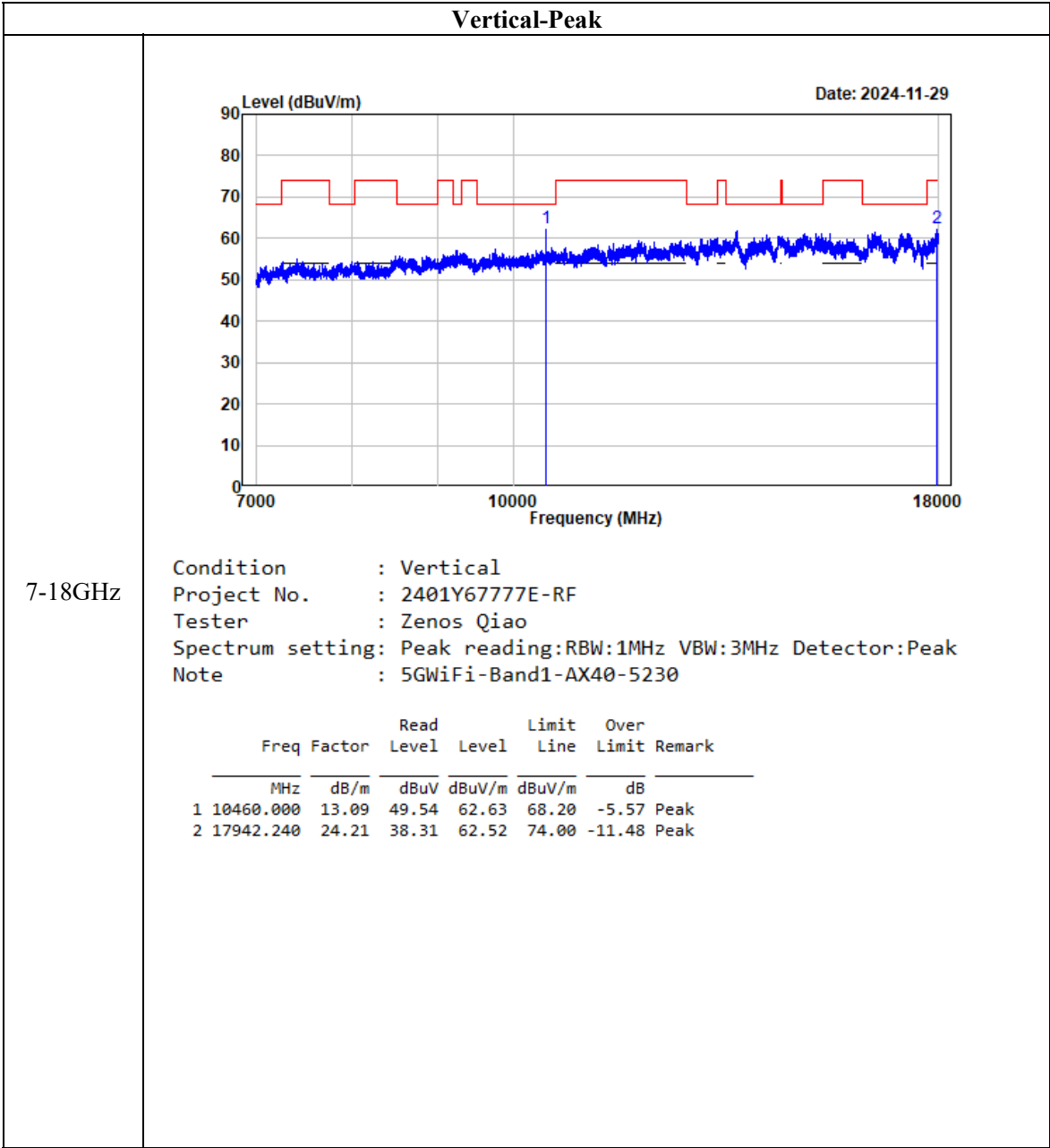
802.11 ax40

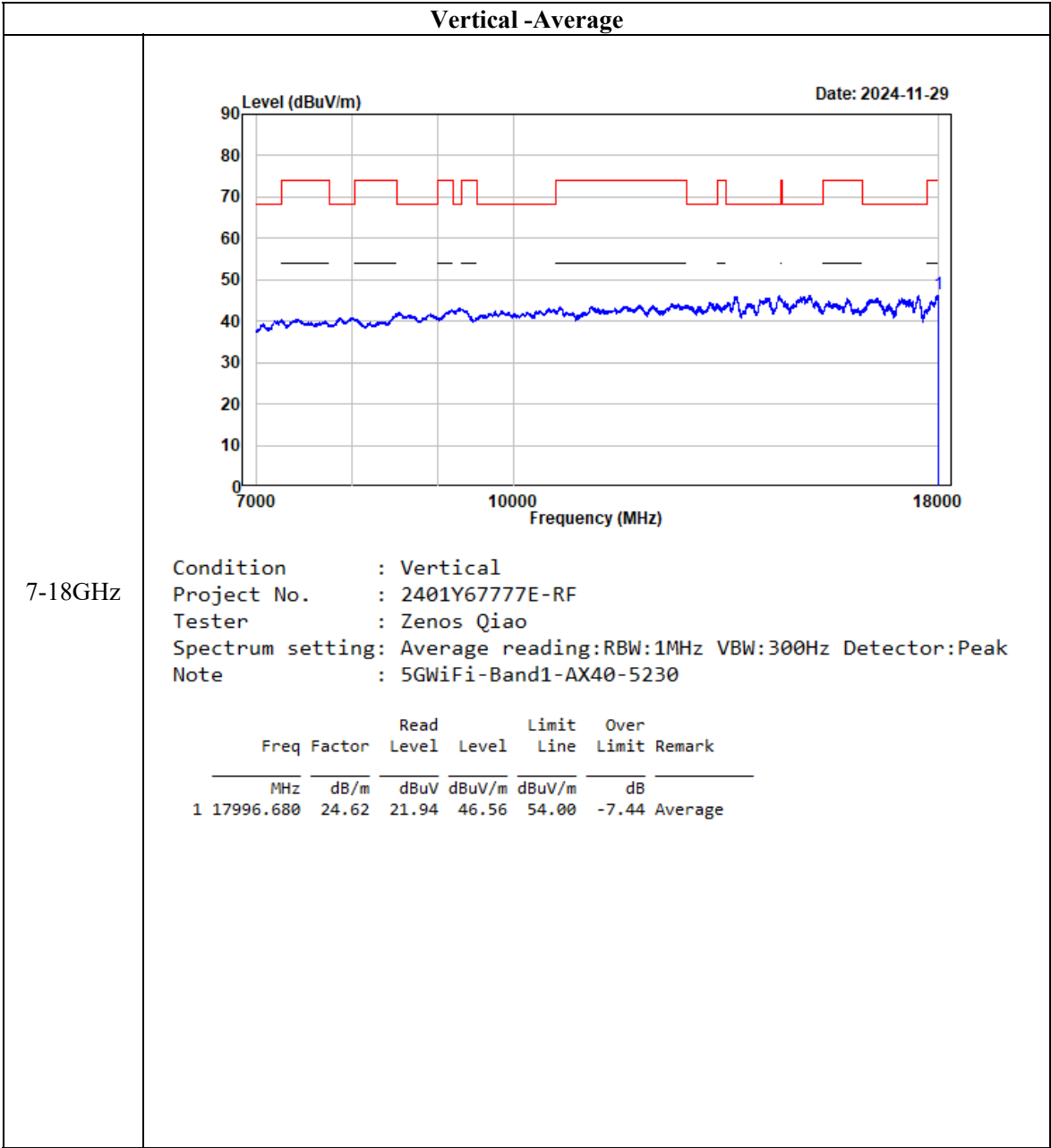




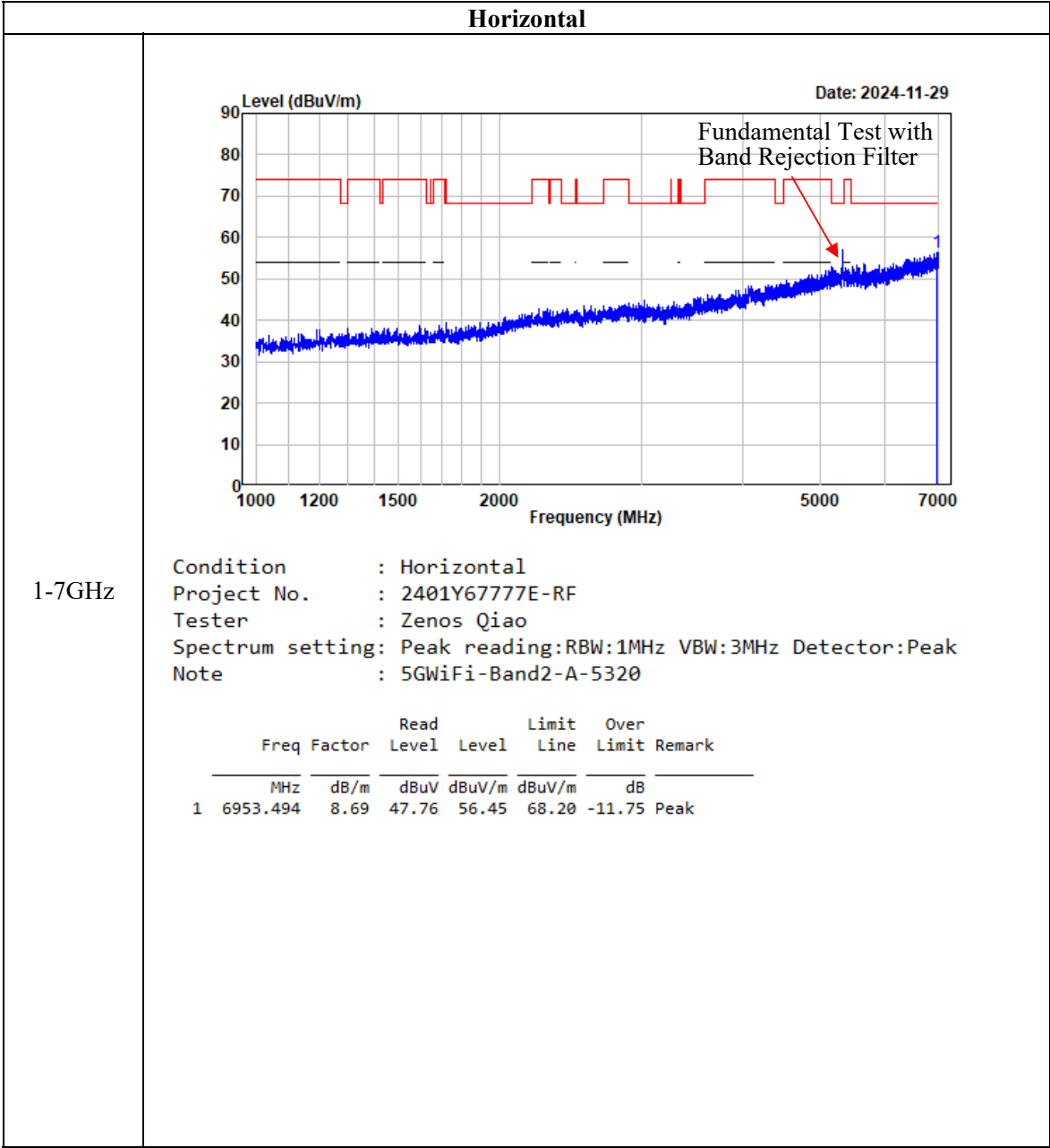


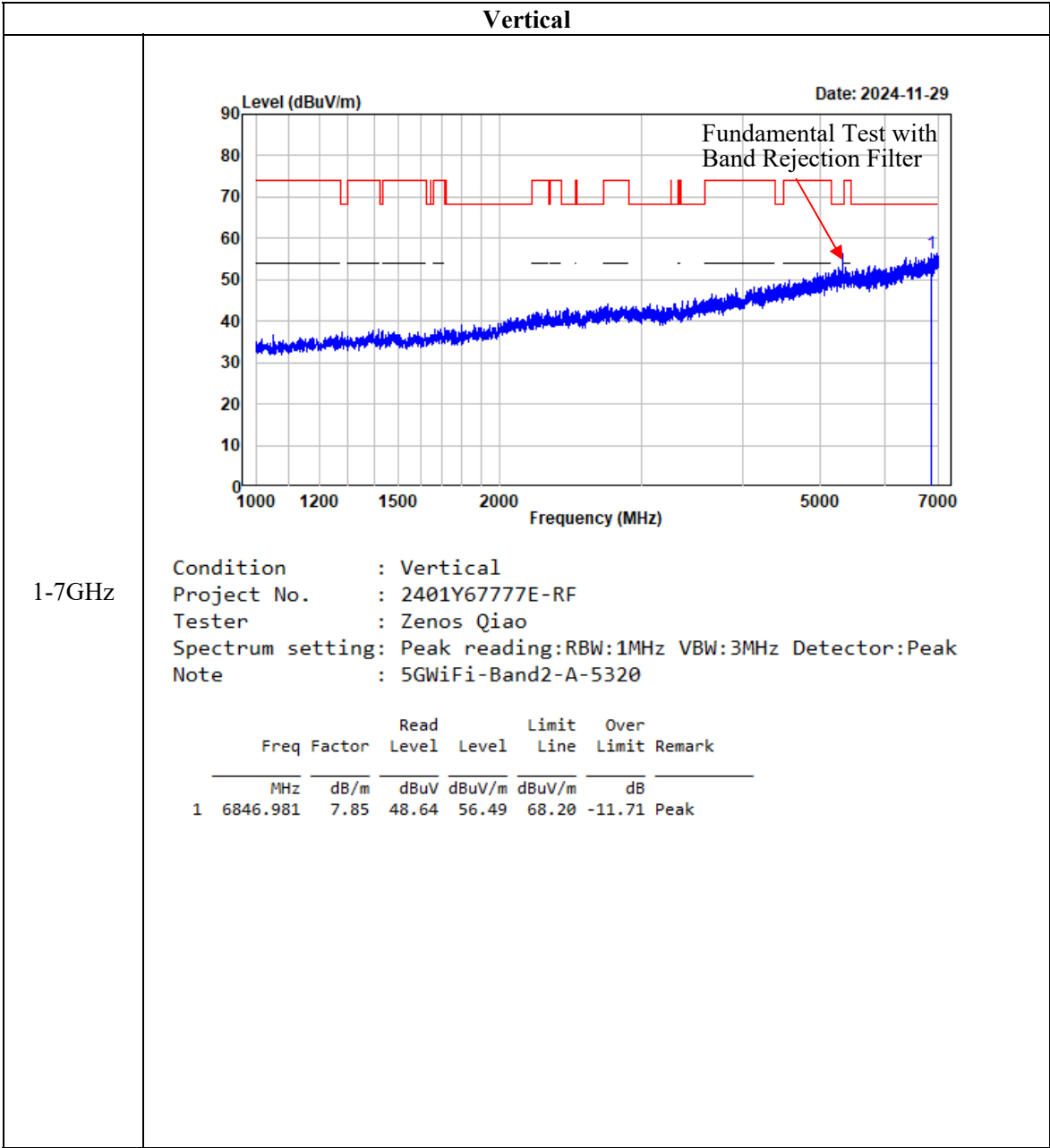


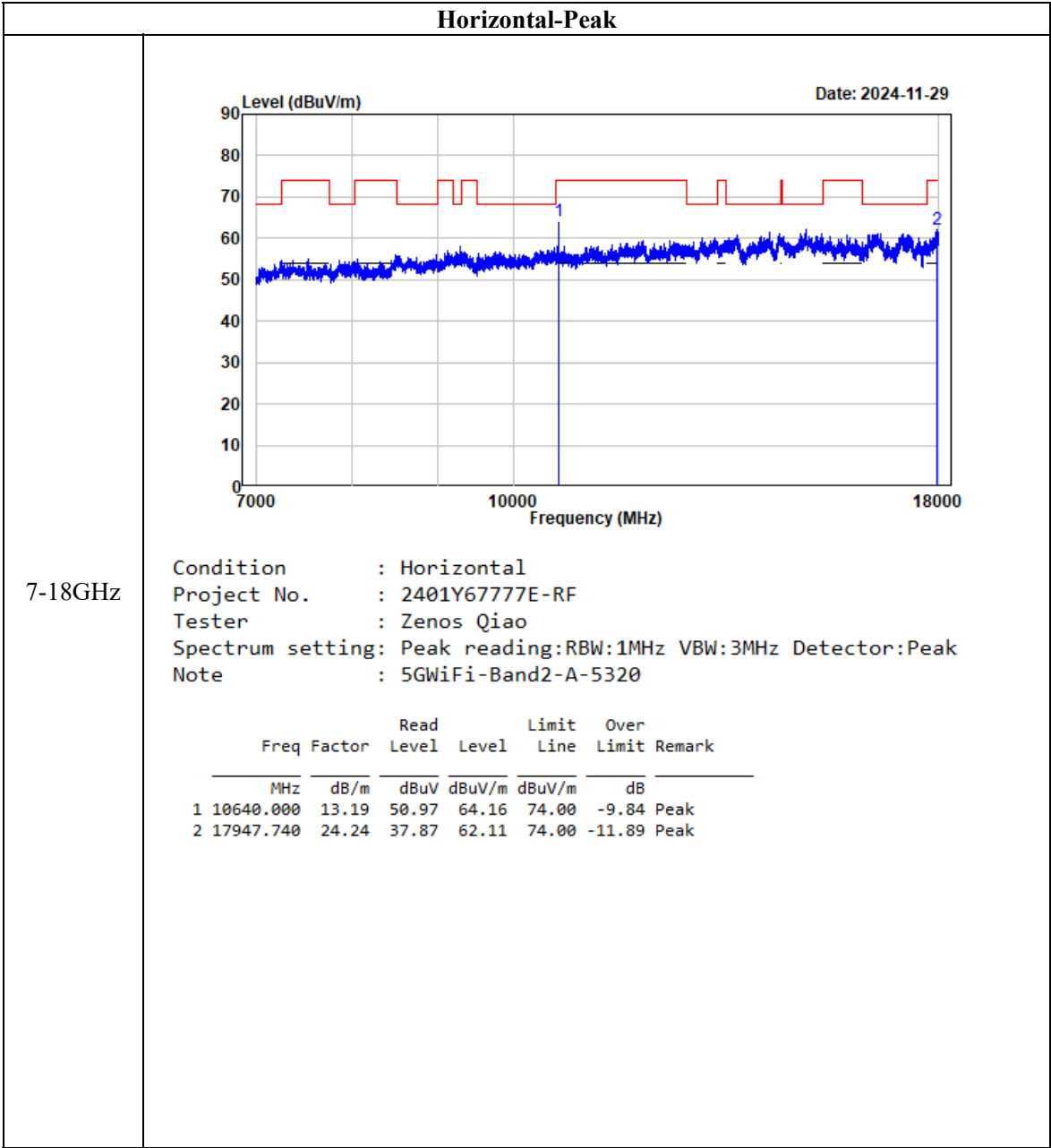


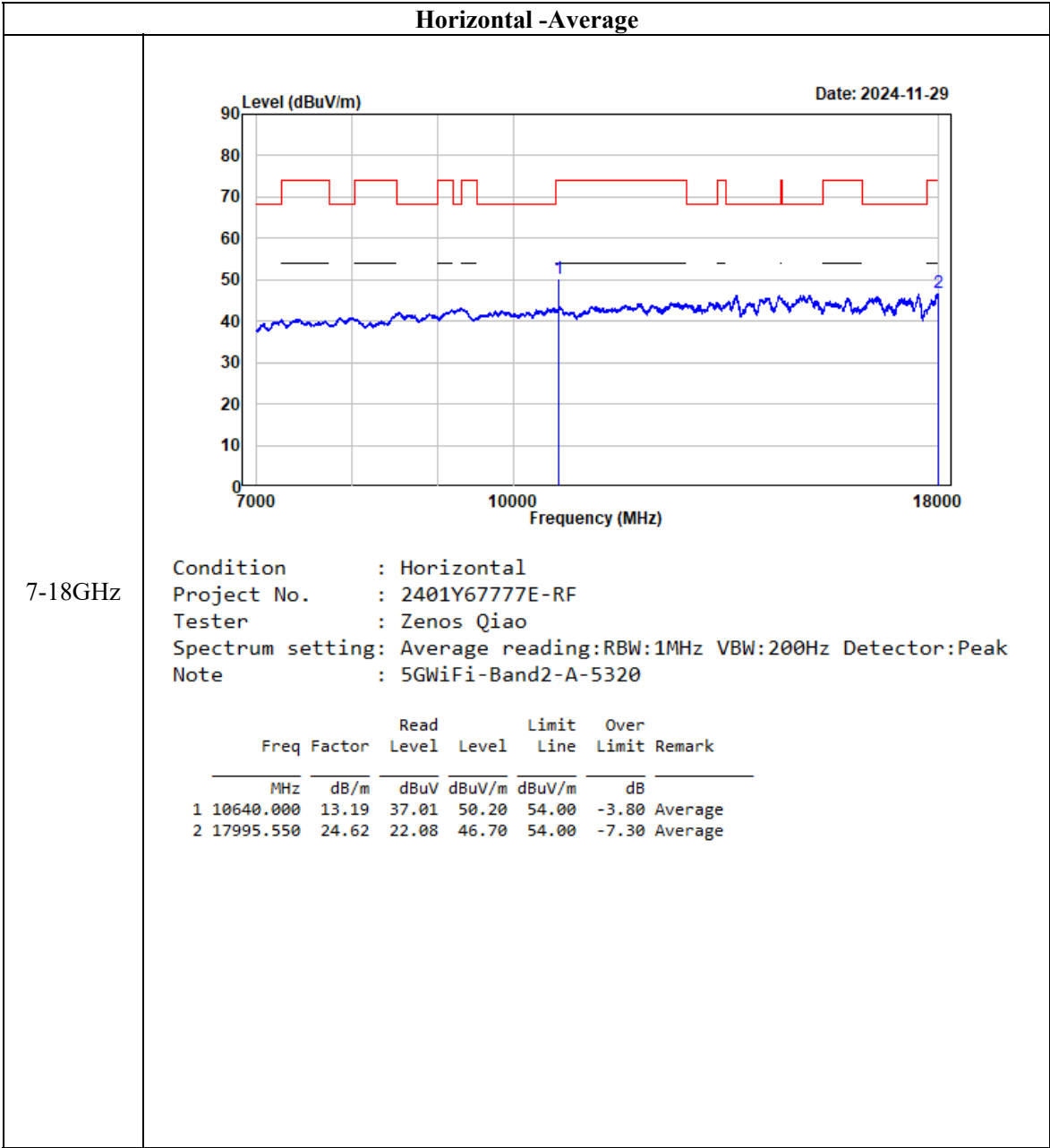


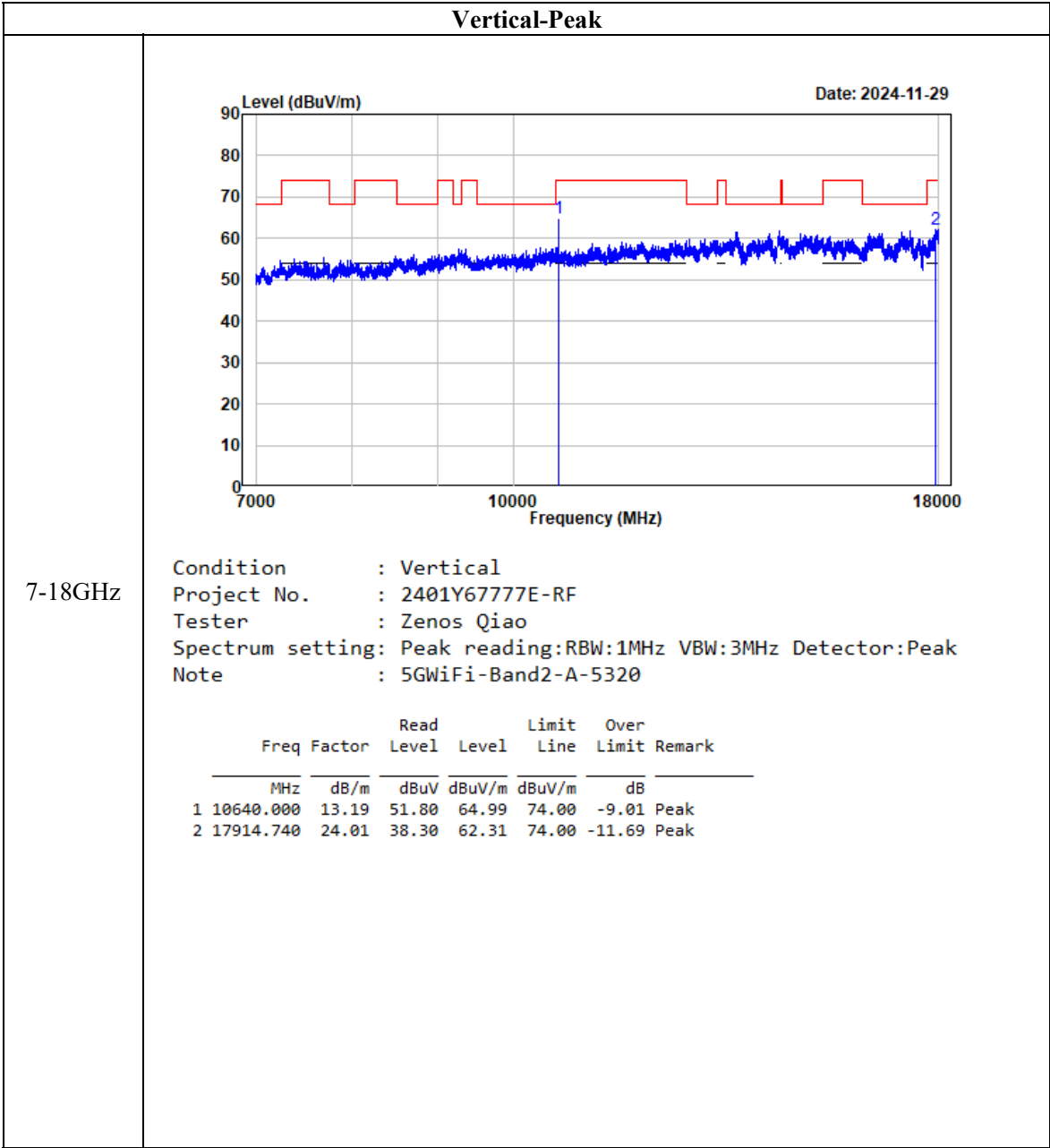
5250-5350MHz:
802.11a

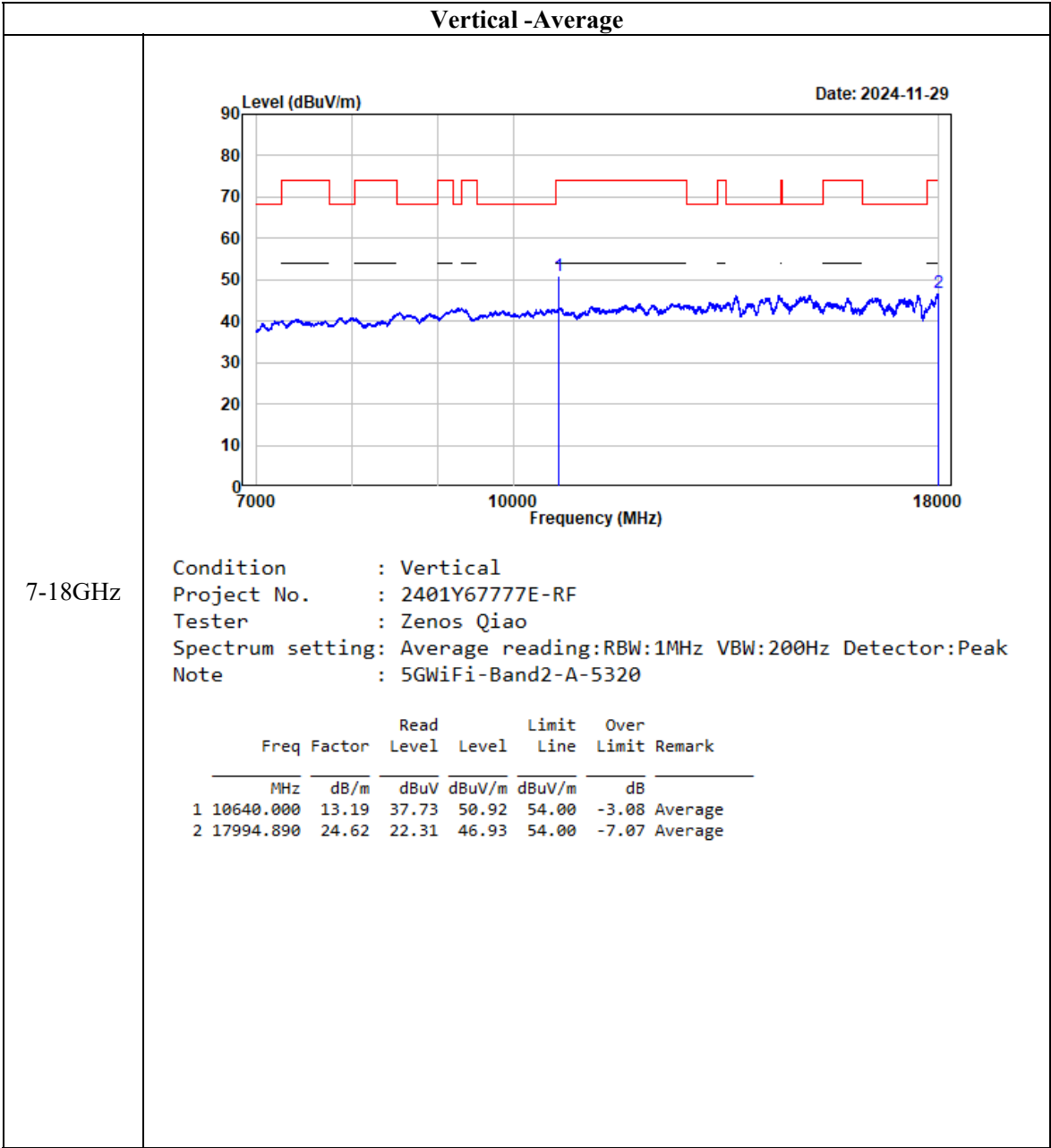




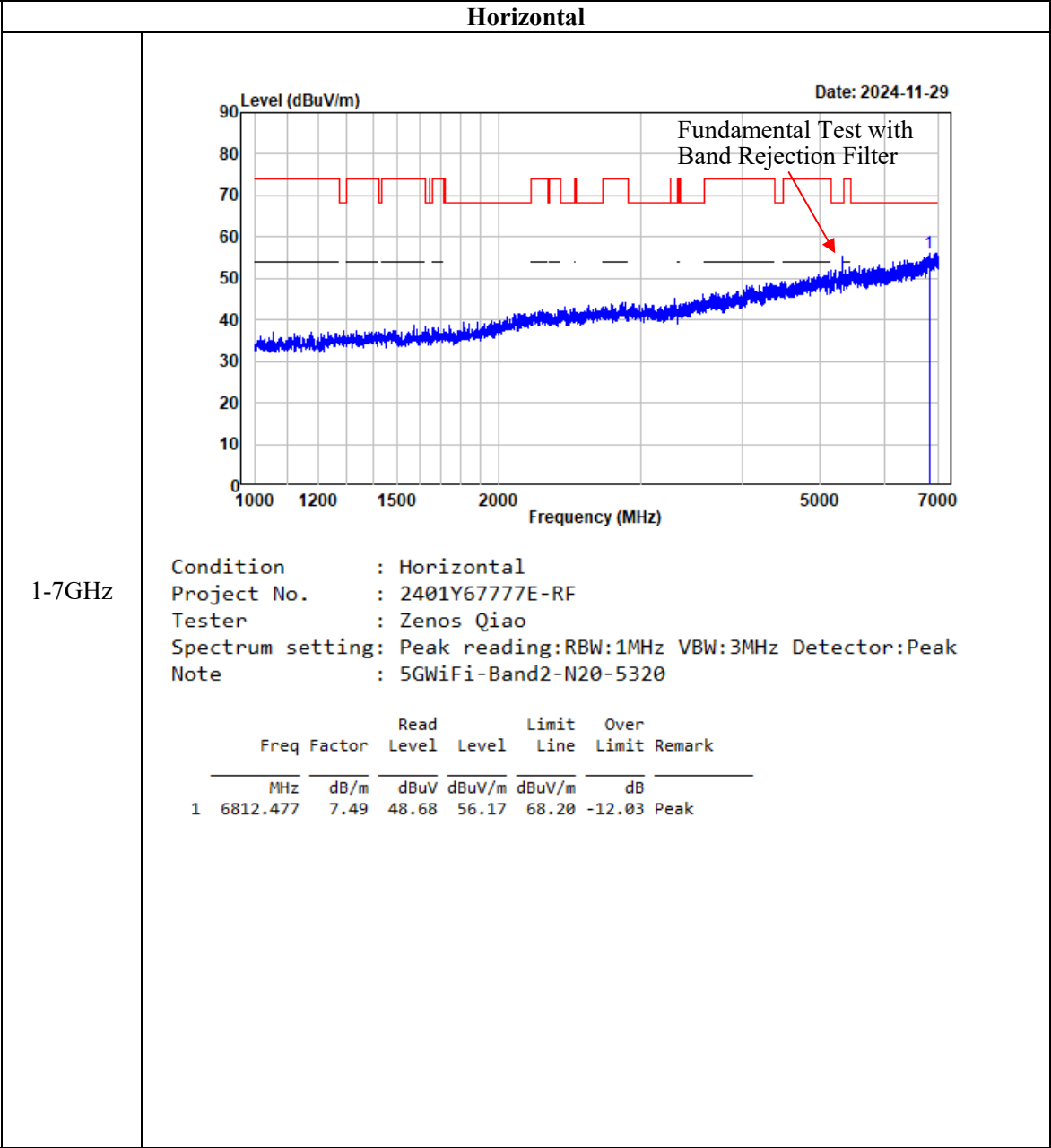




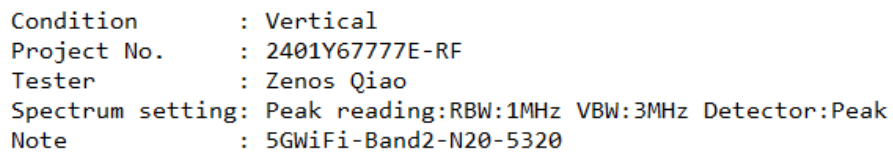




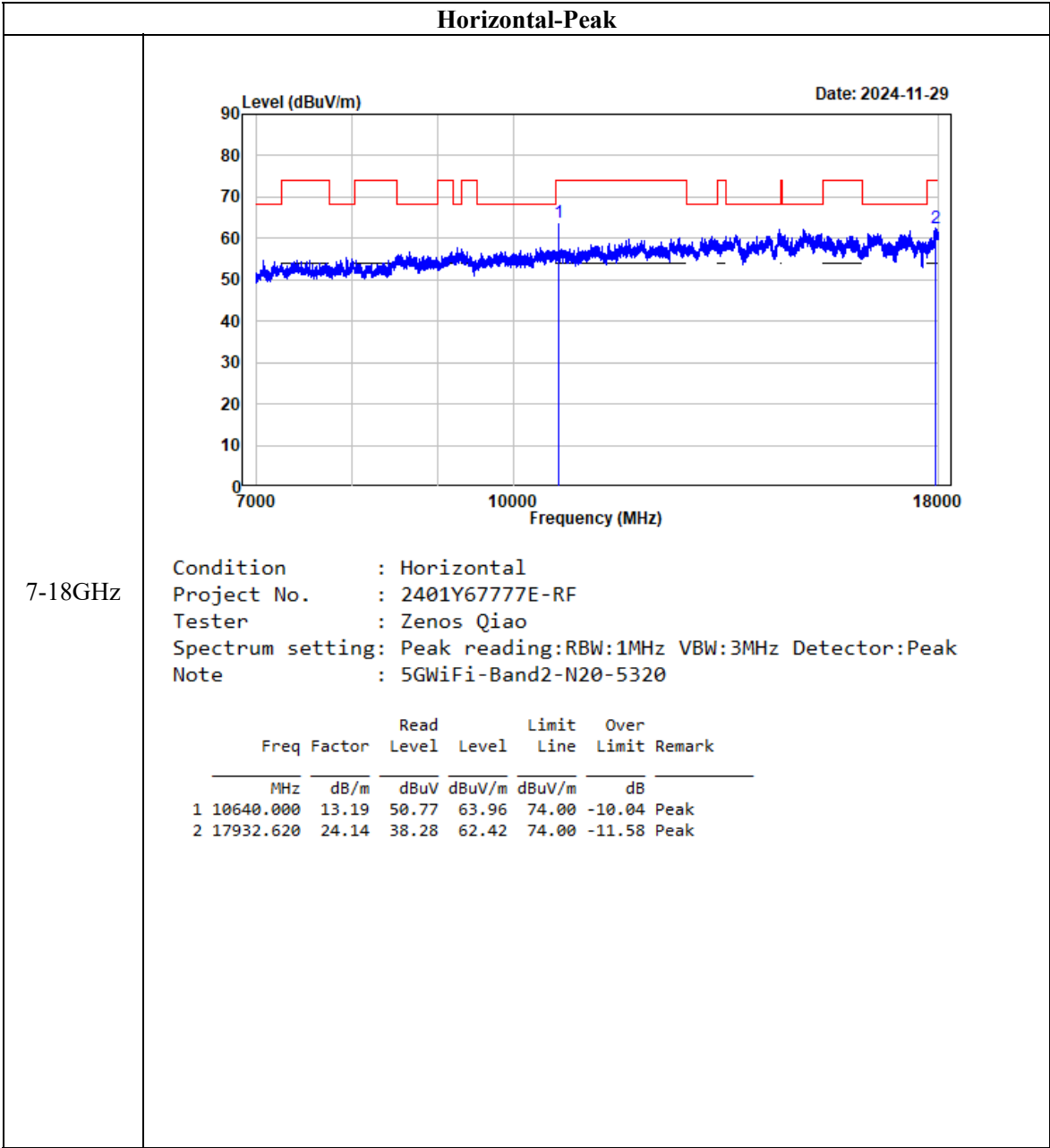
802.11 n20

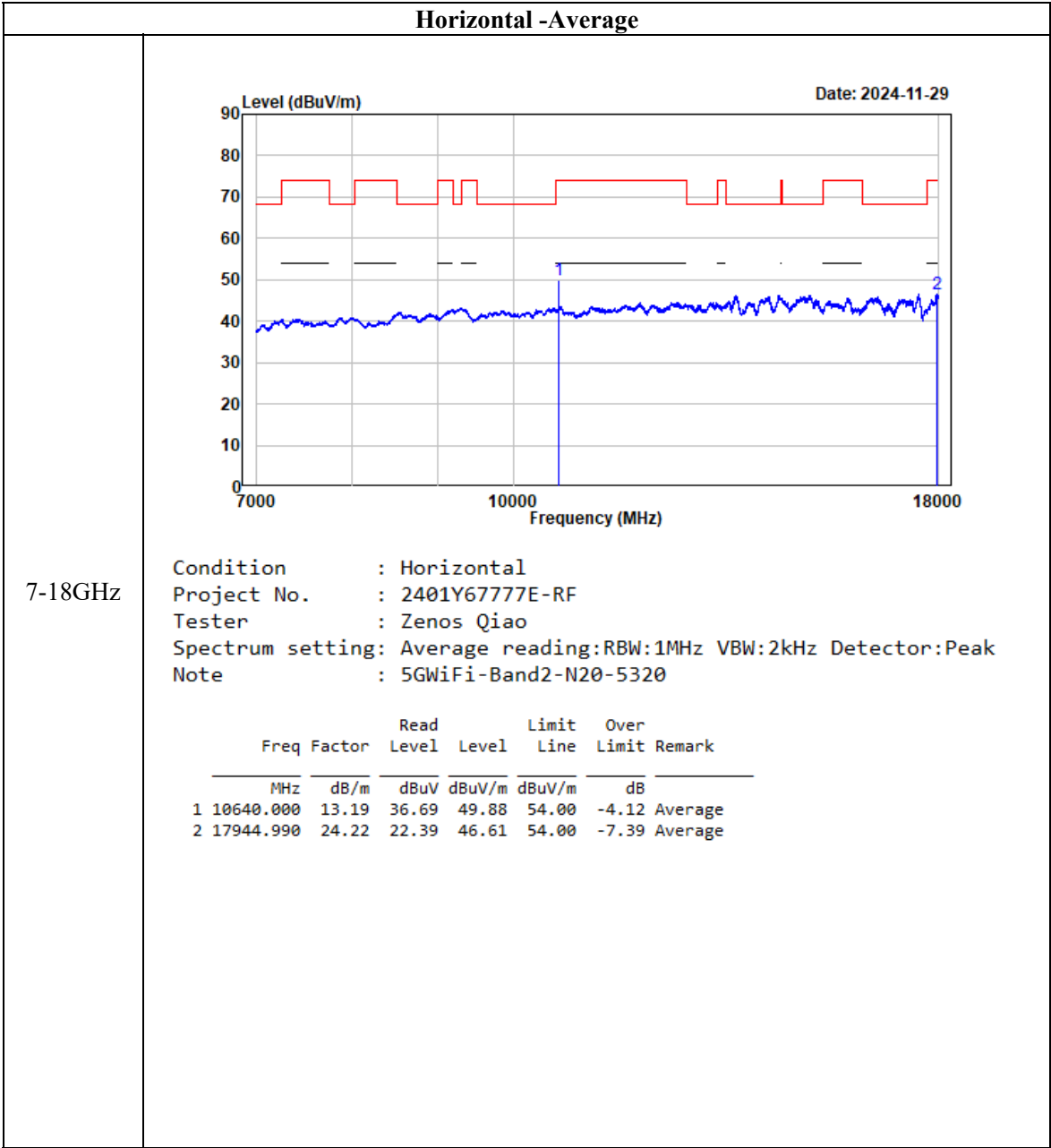


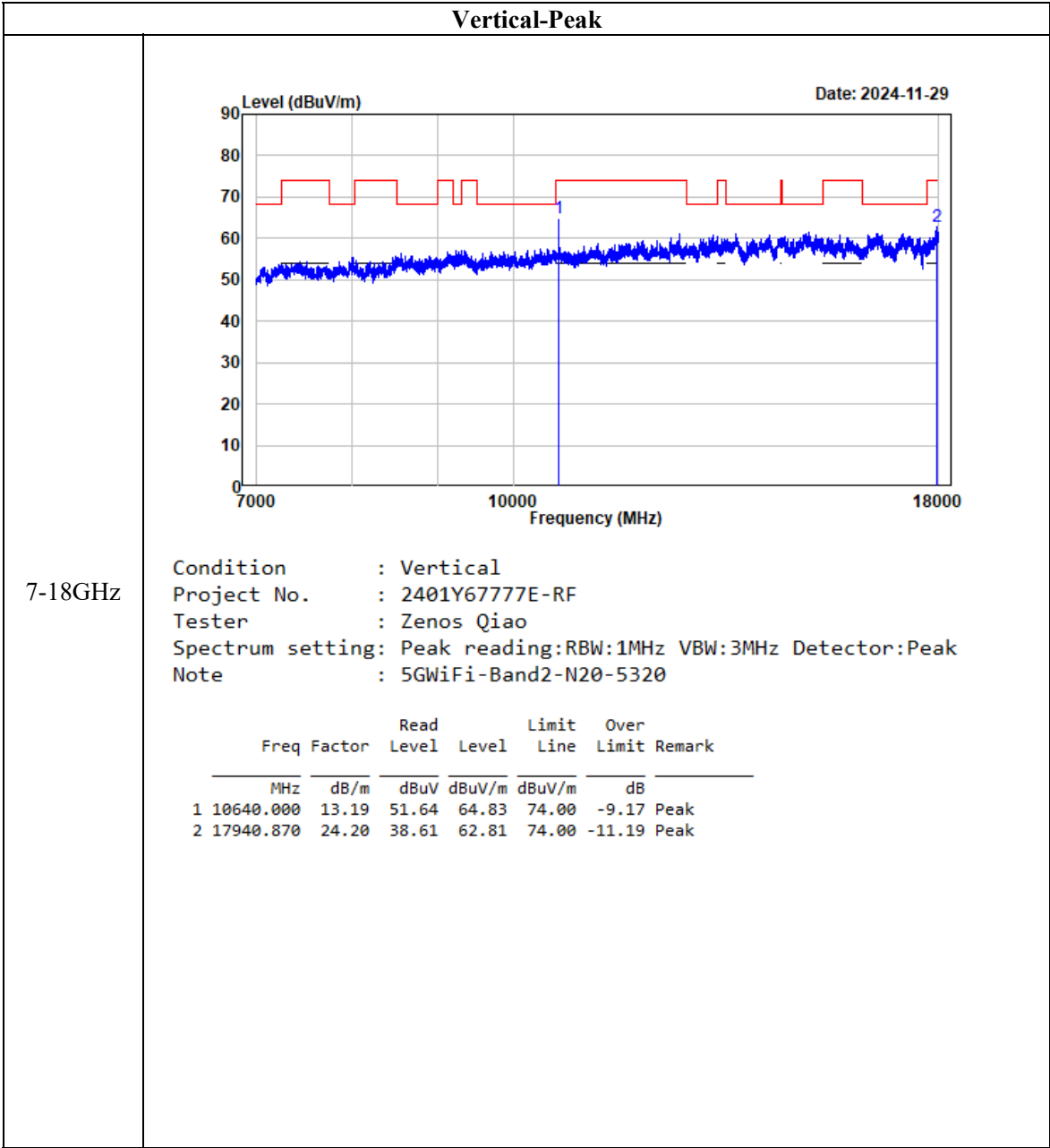
1-7GHz

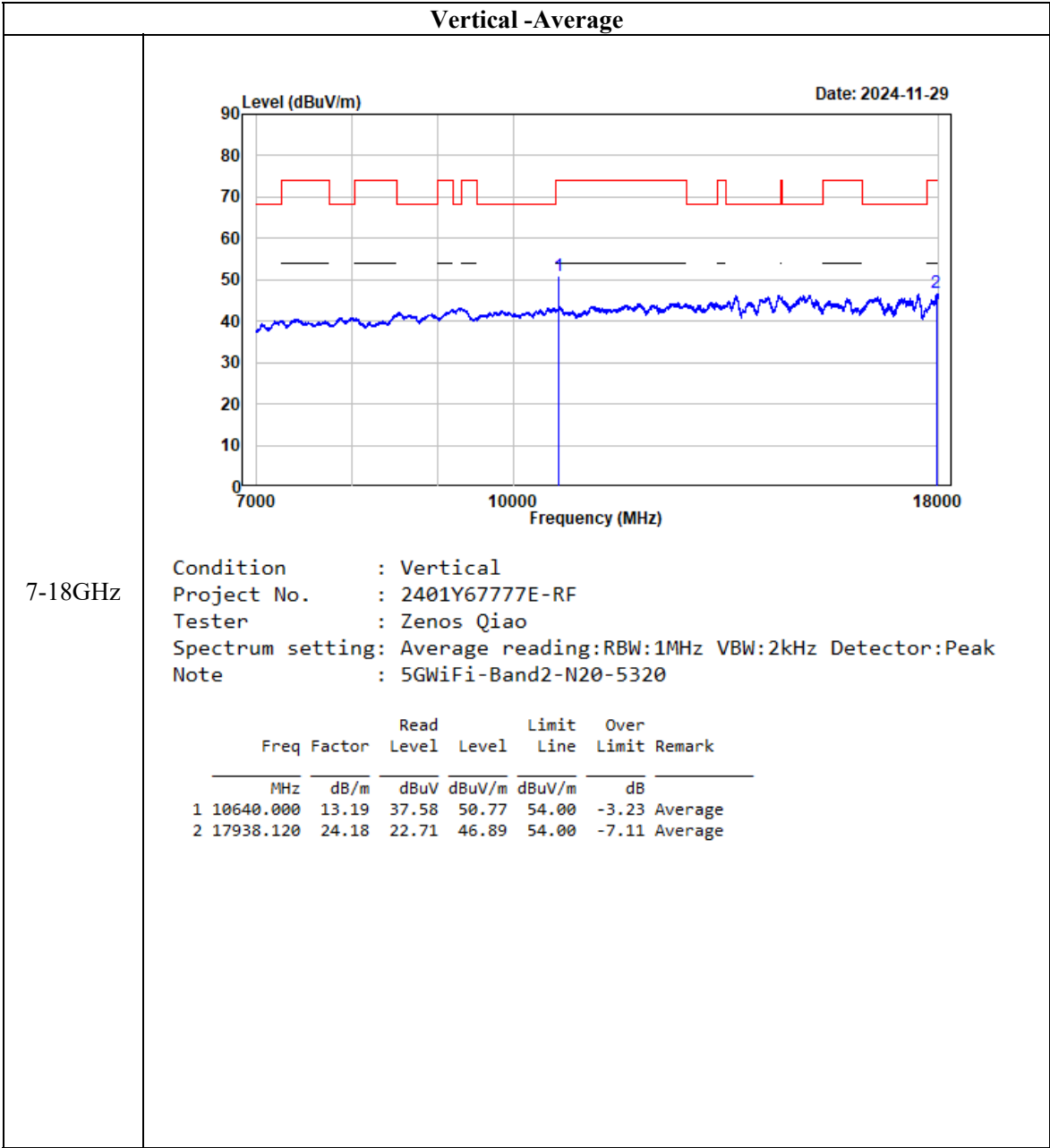


	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6978.998	8.64	47.29	55.93	68.20	-12.27	Peak

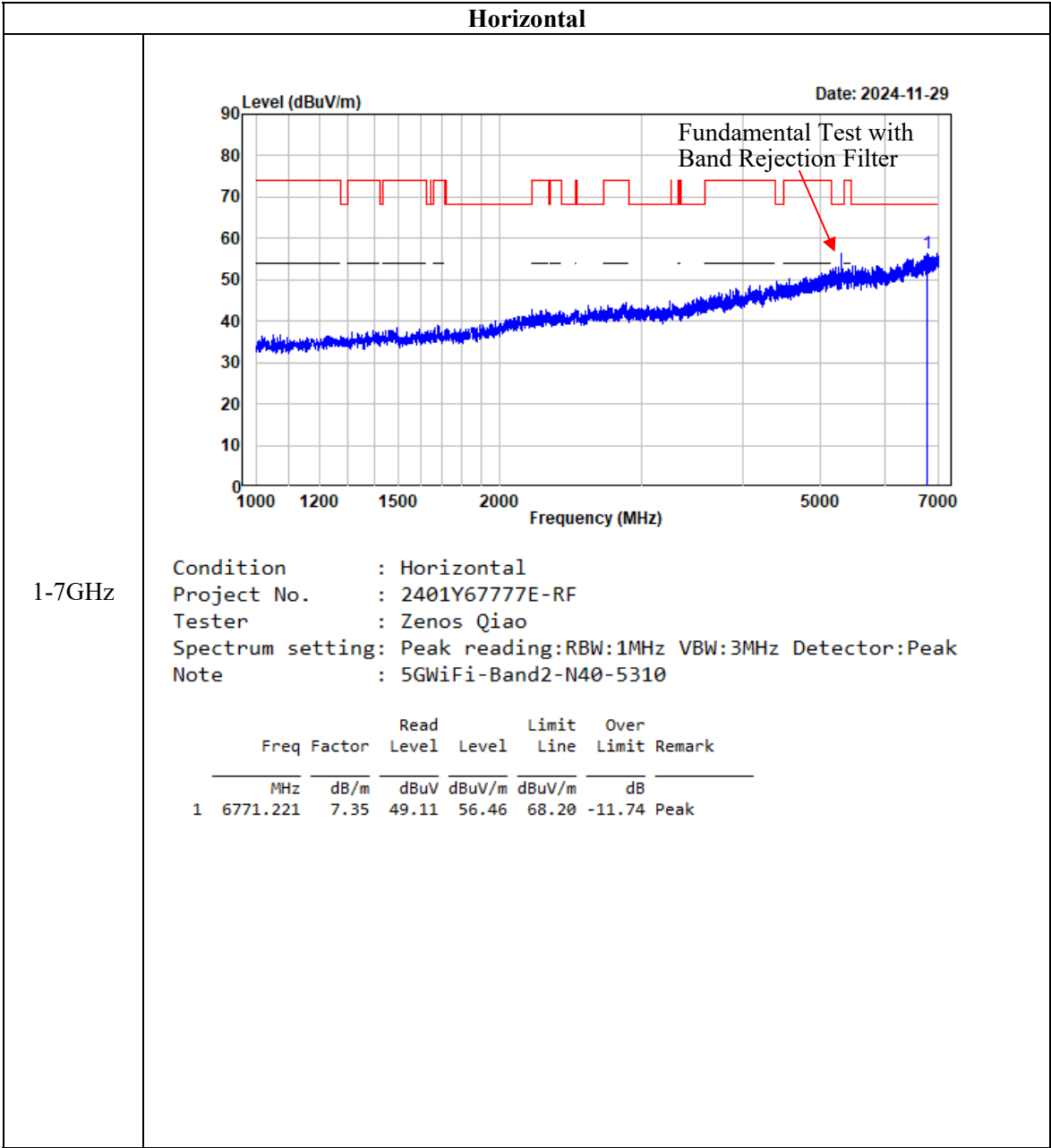


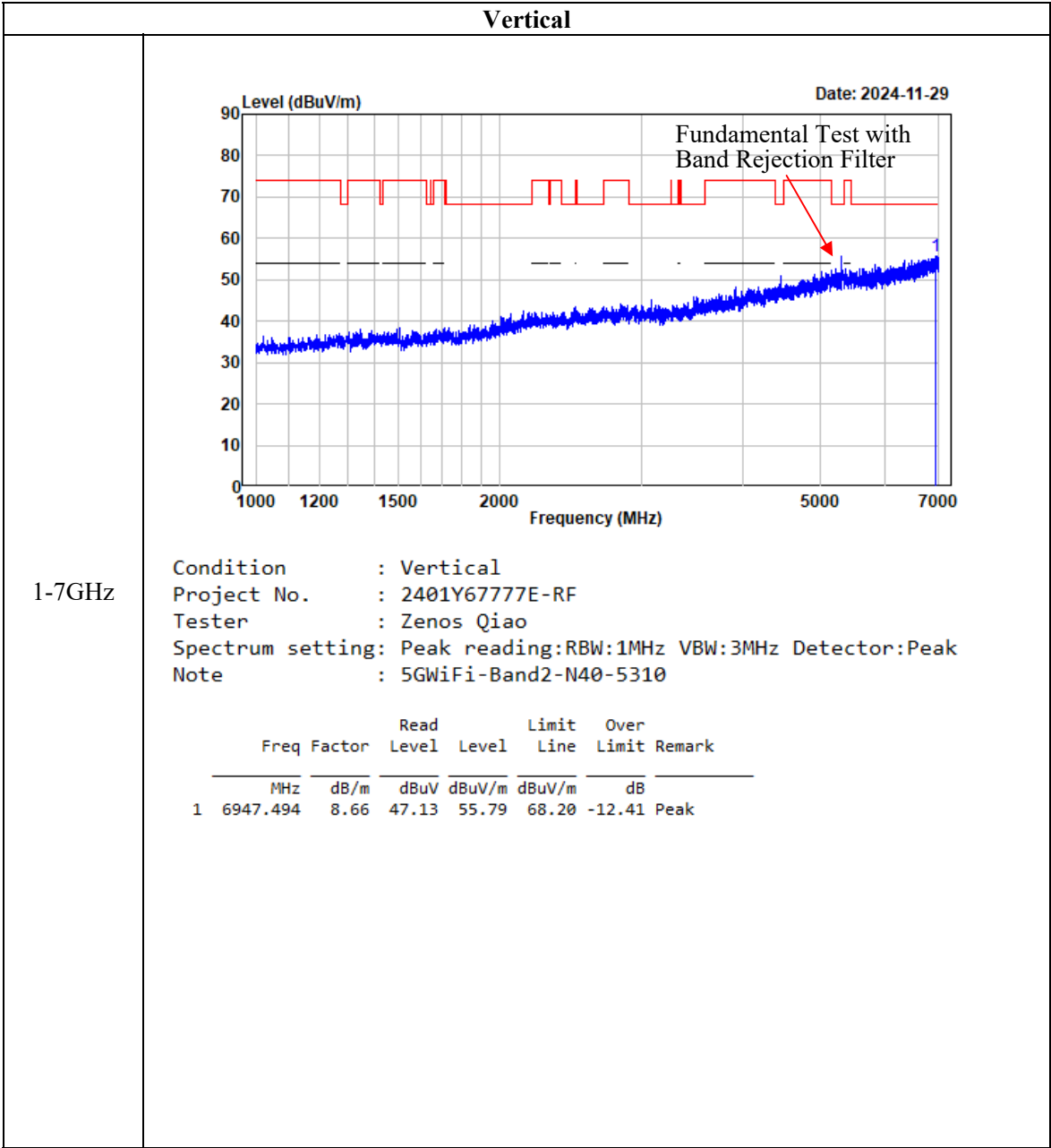


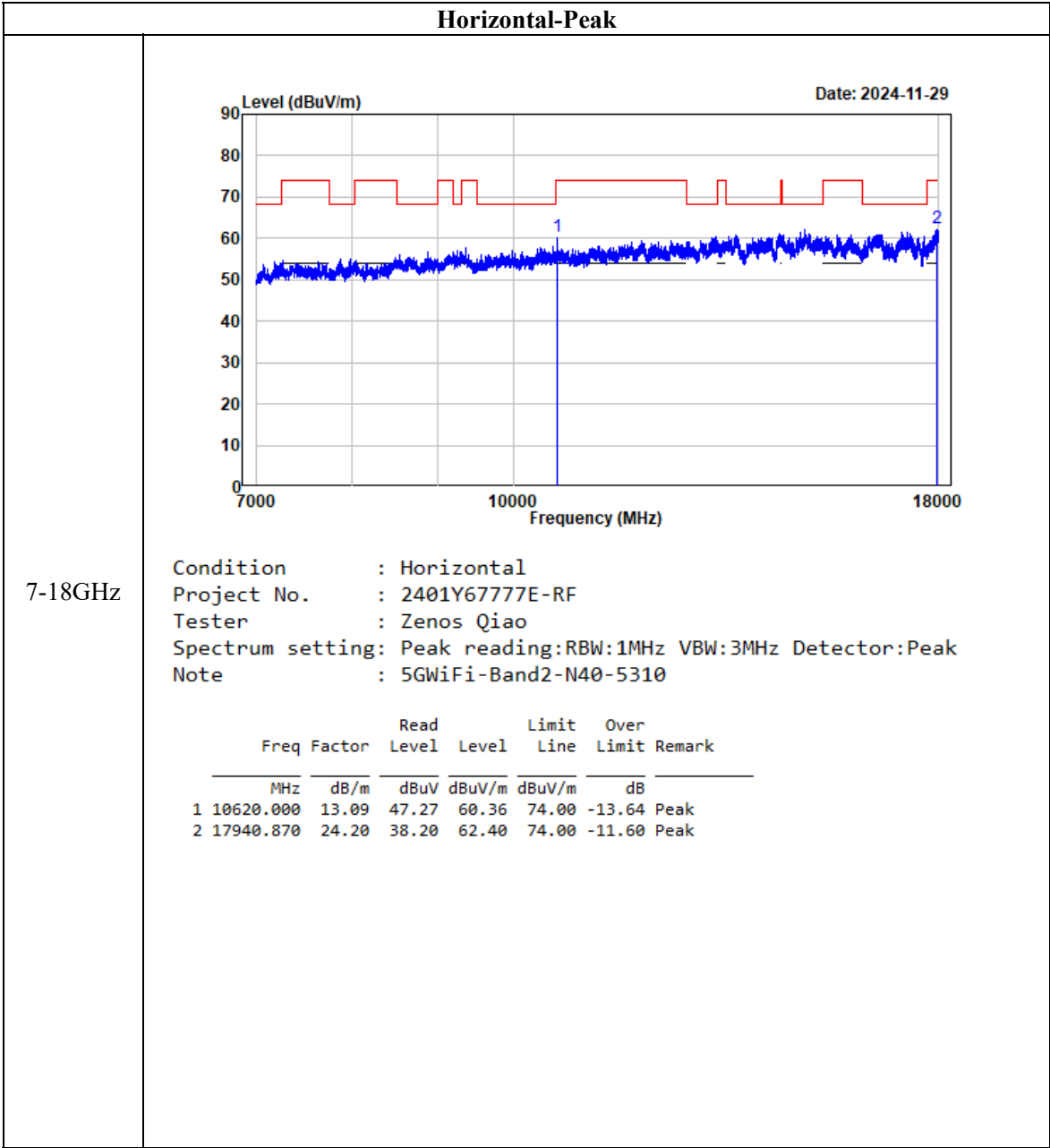


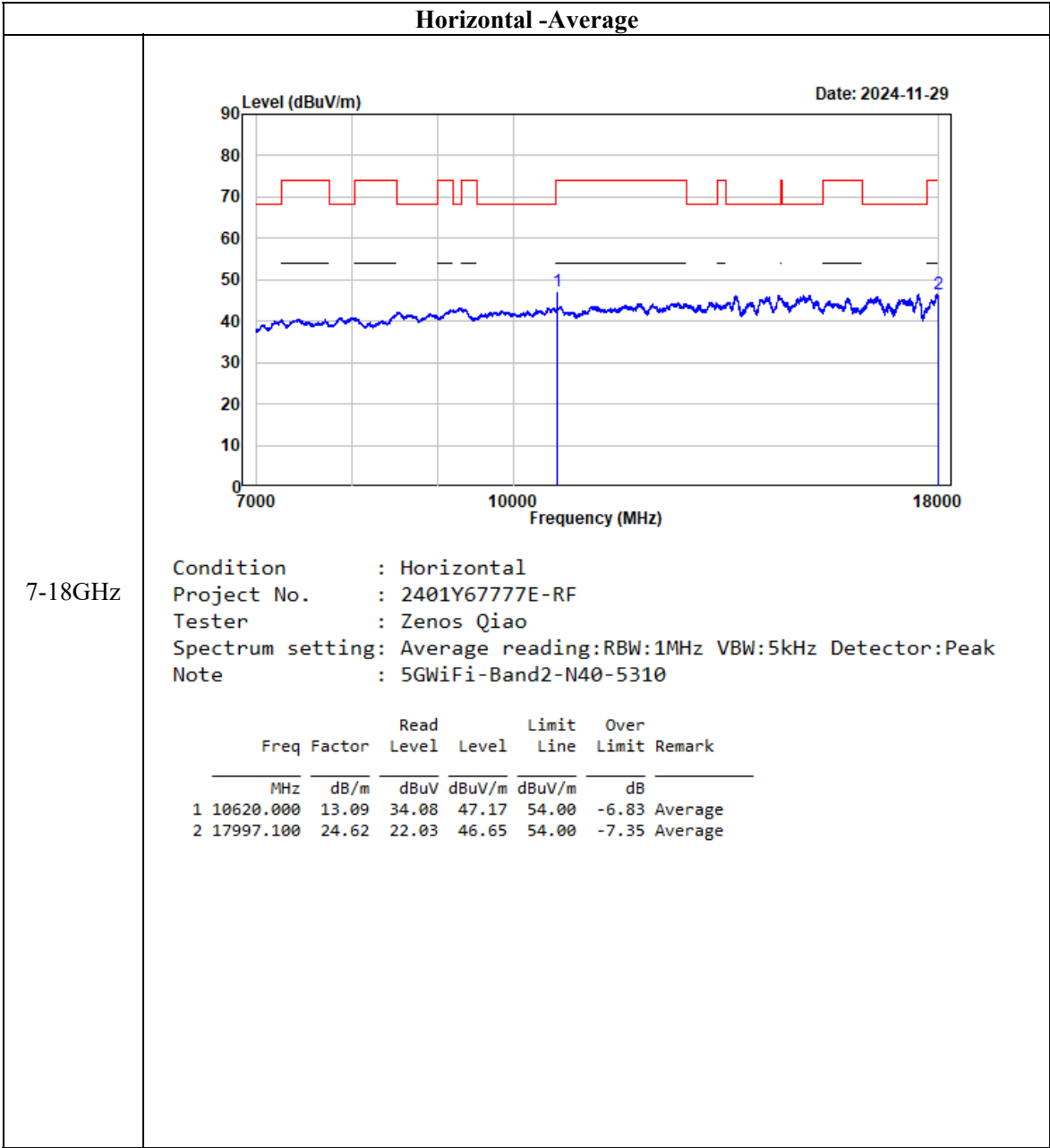


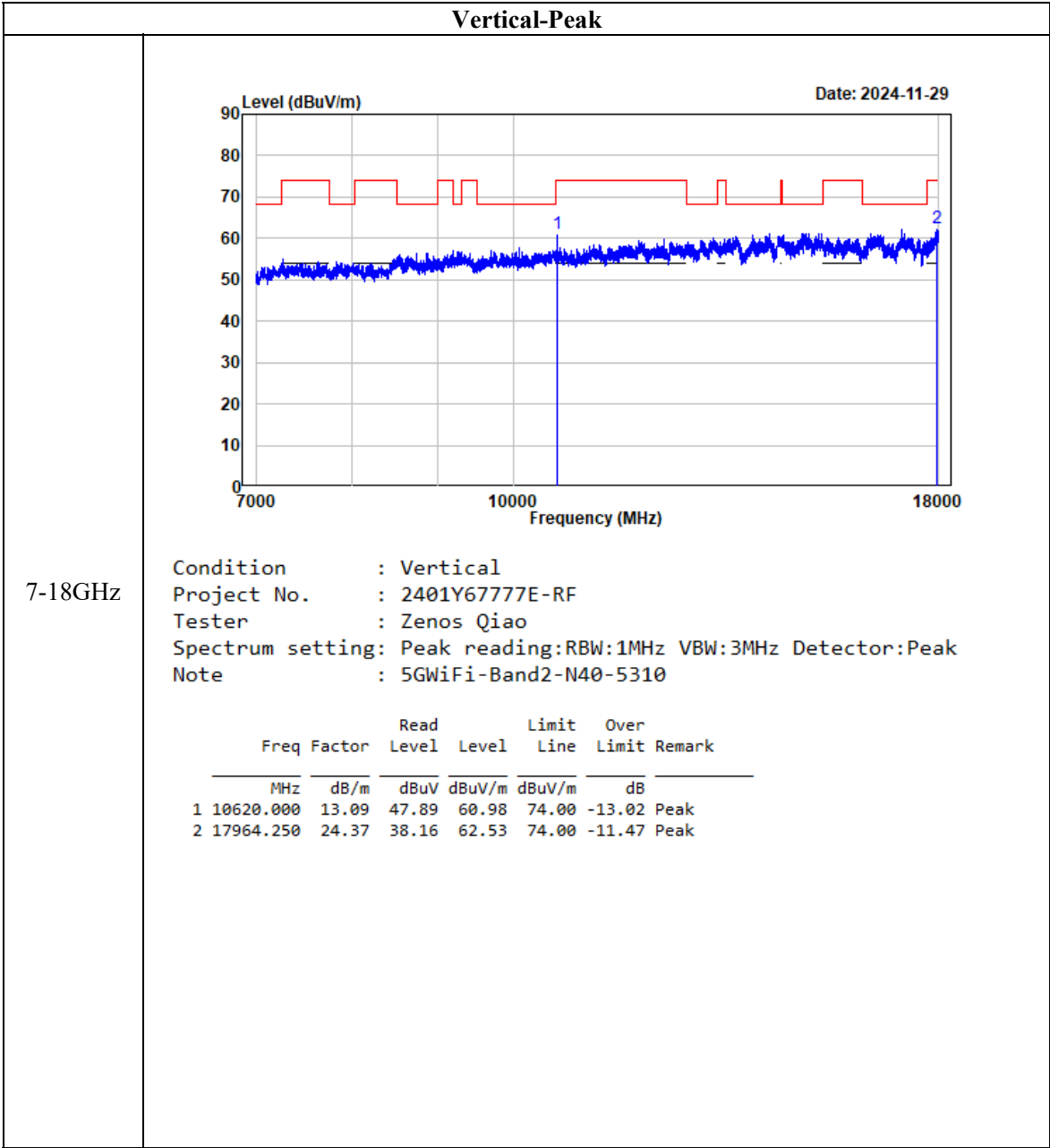
802.11 n40

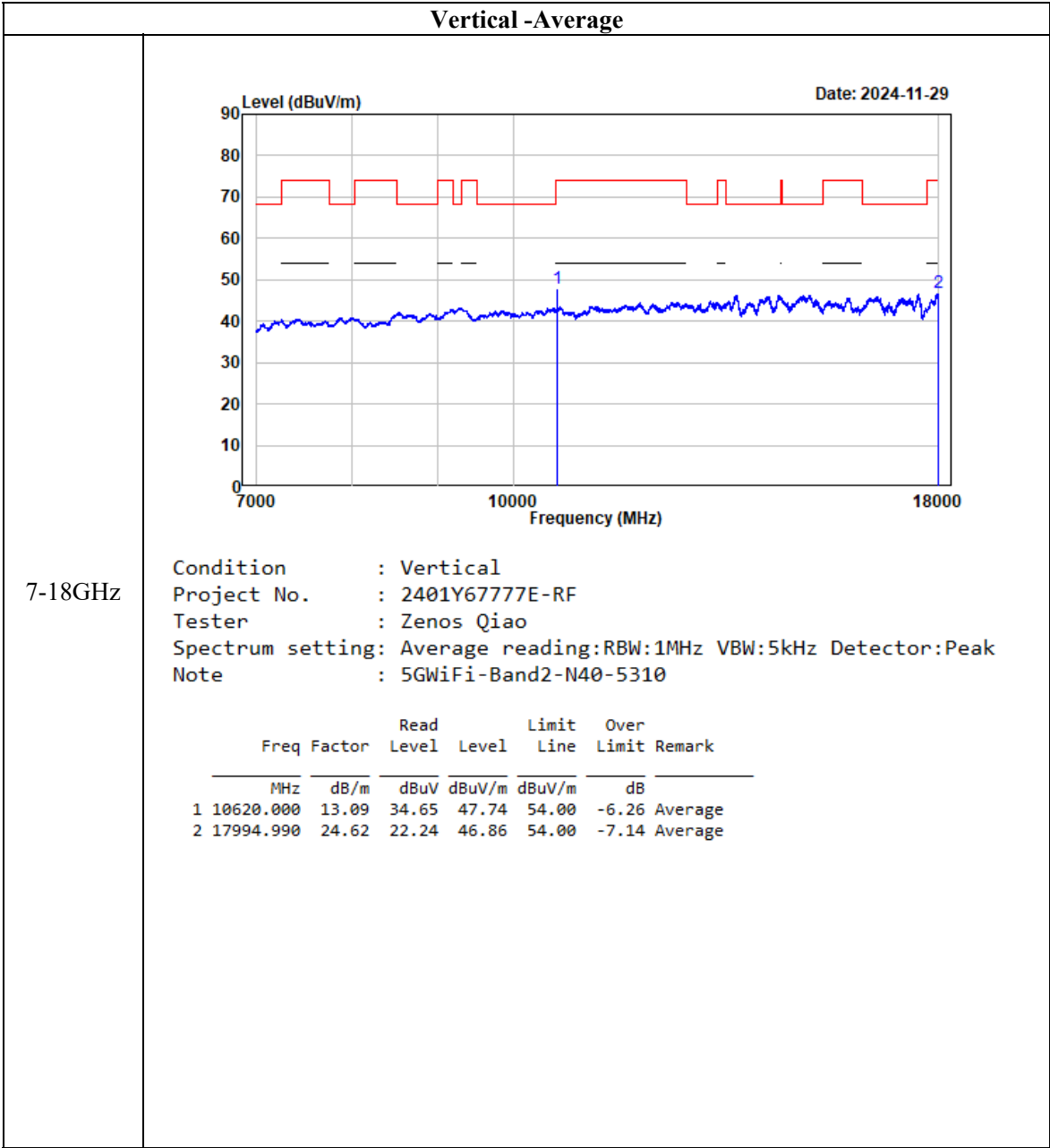




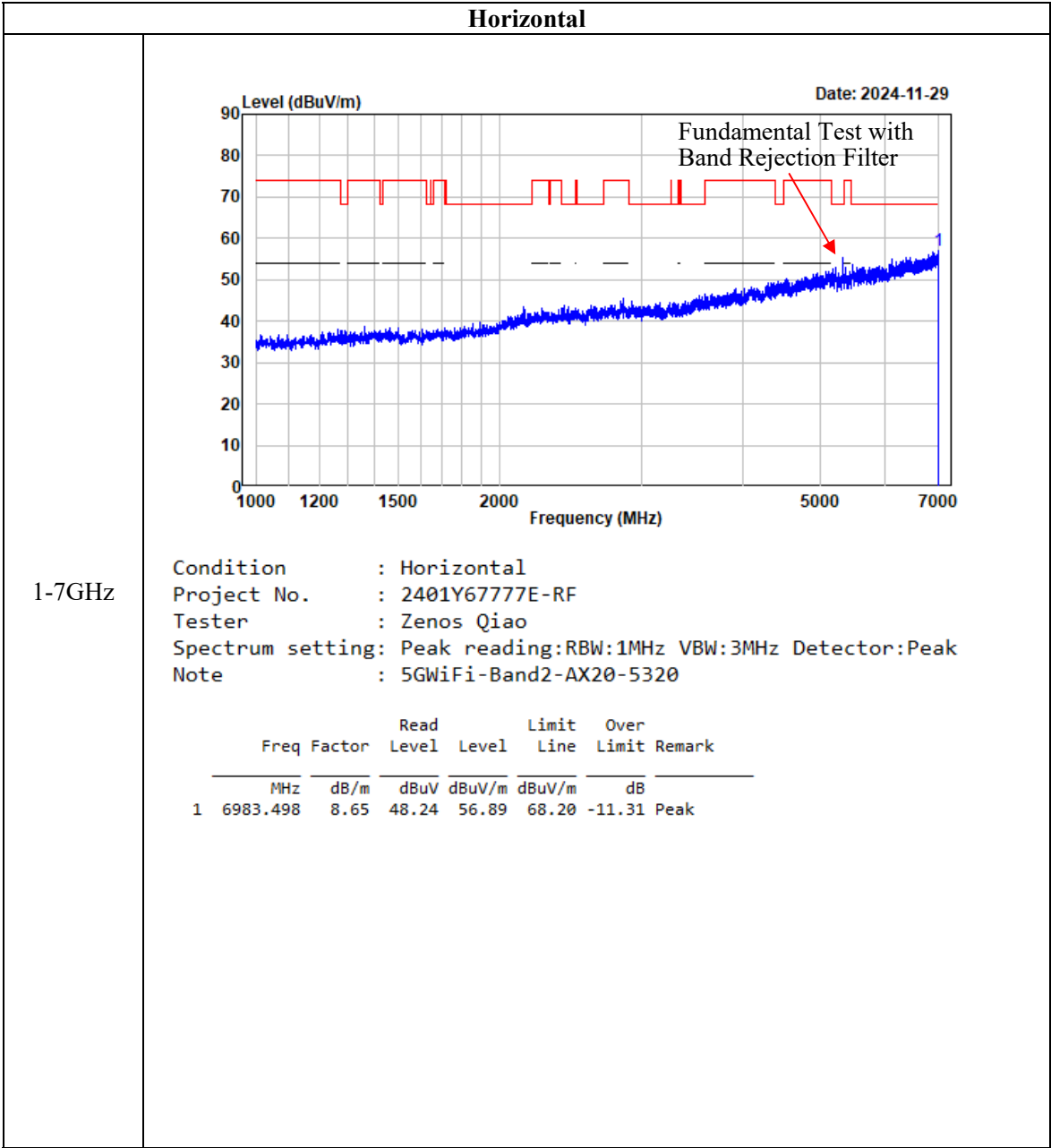


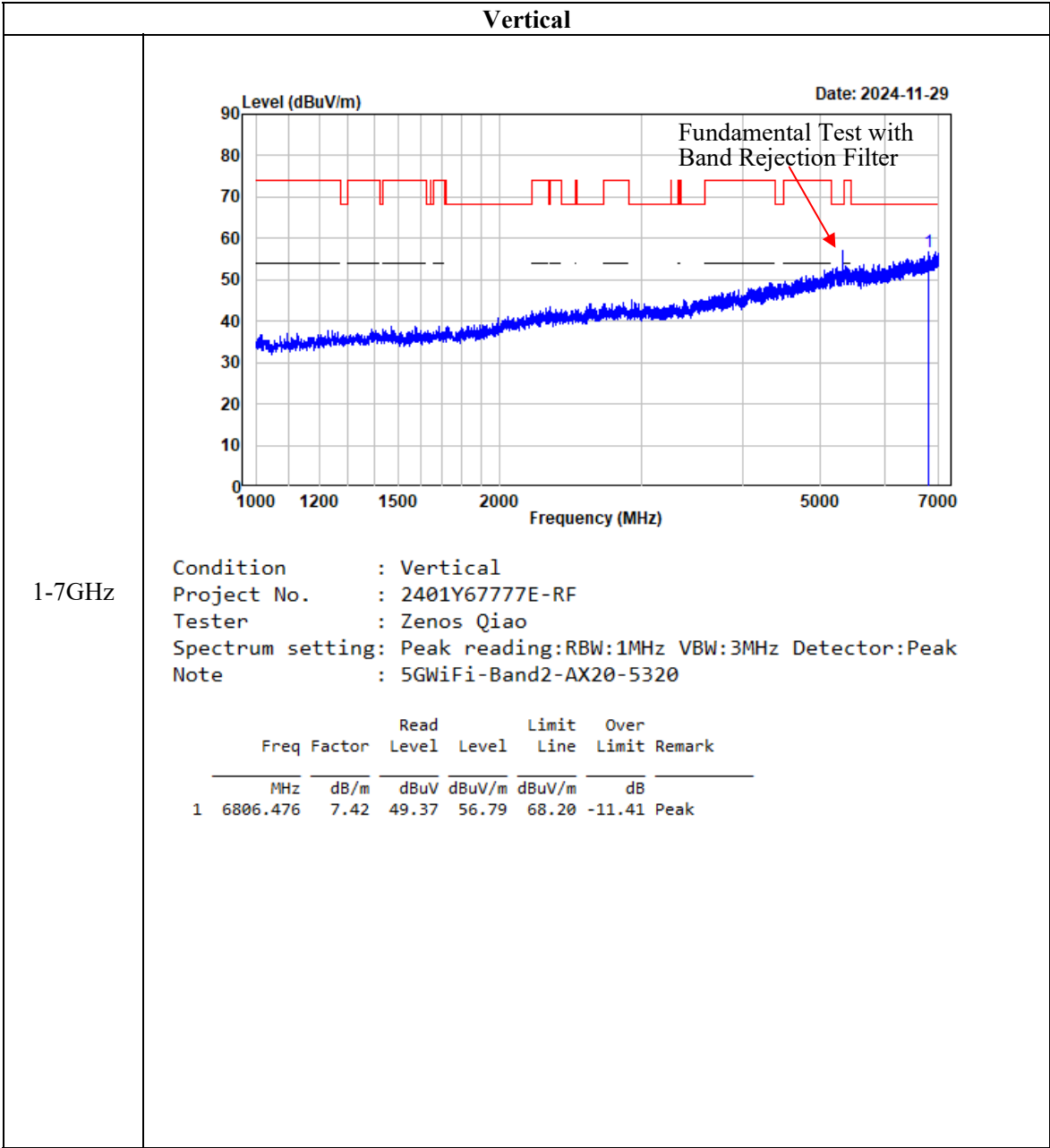


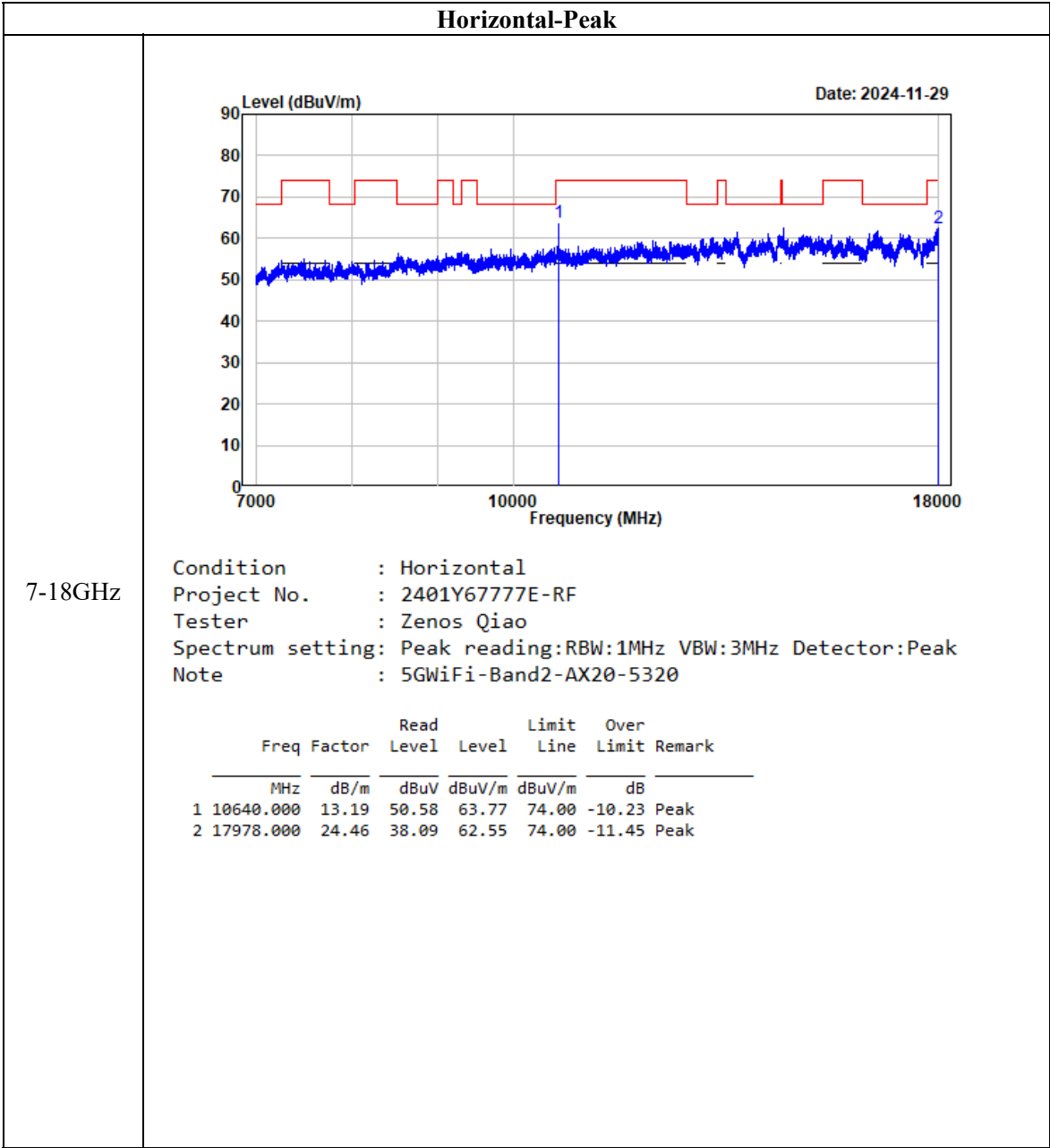


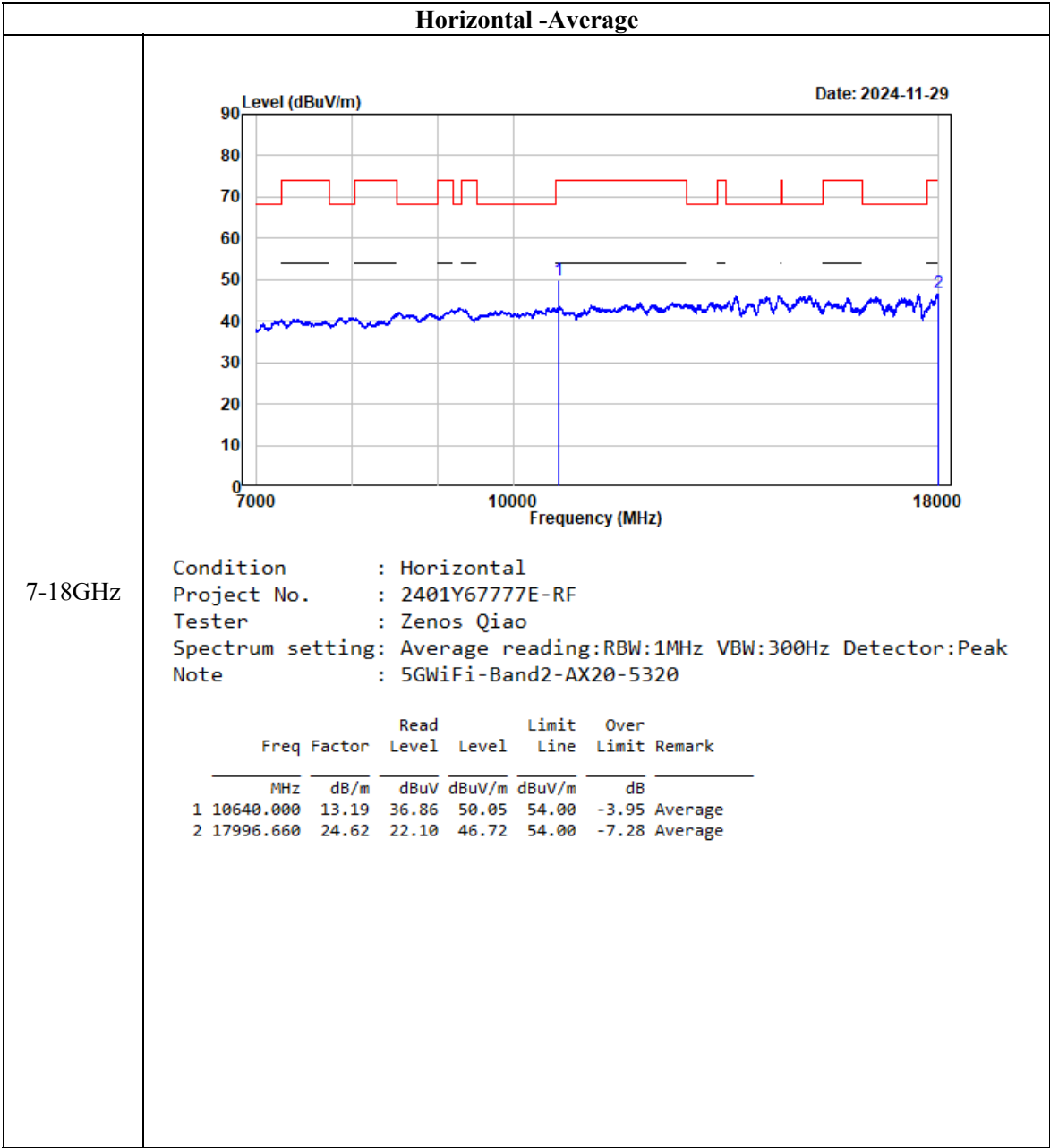


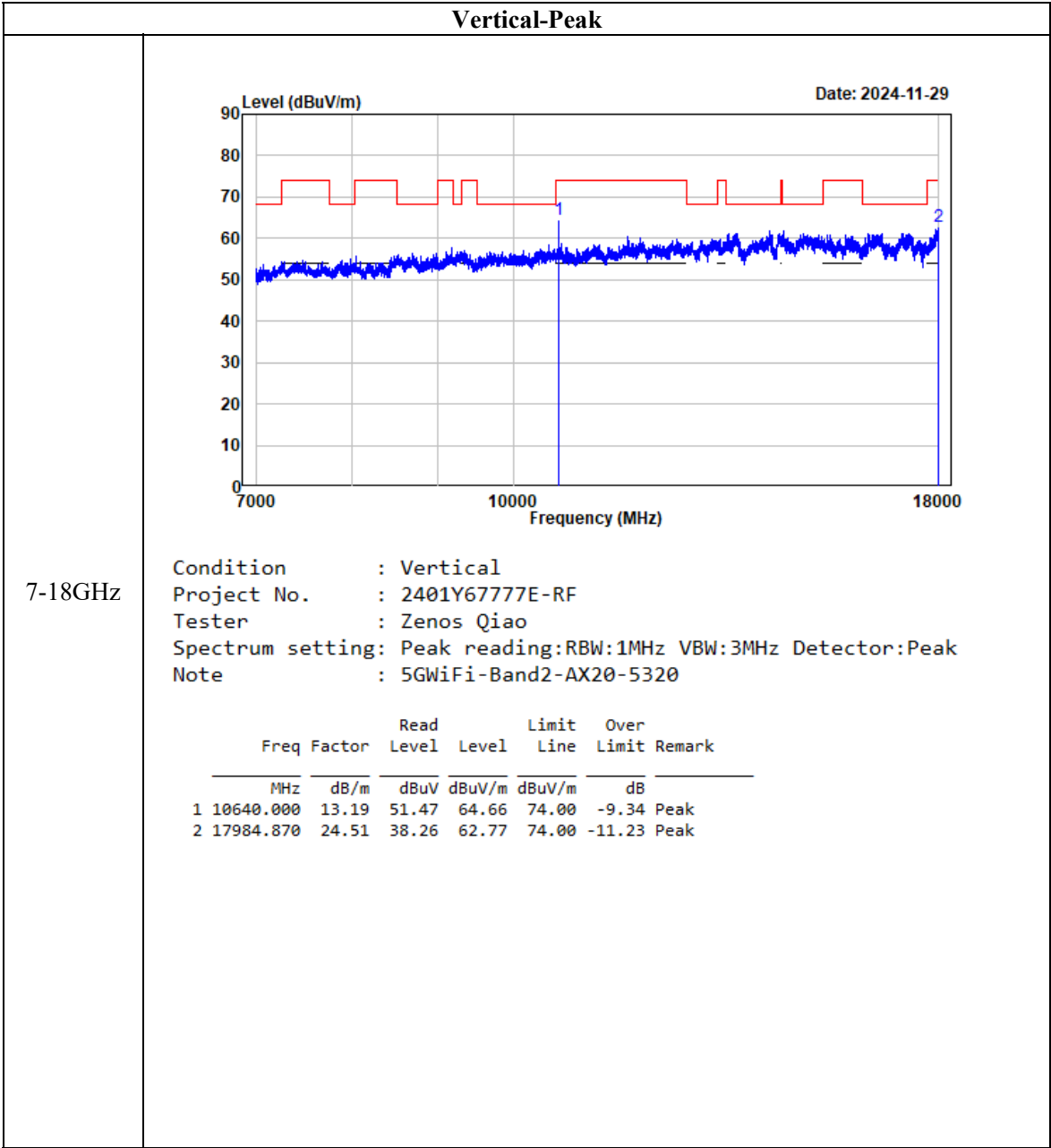
802.11 ax20

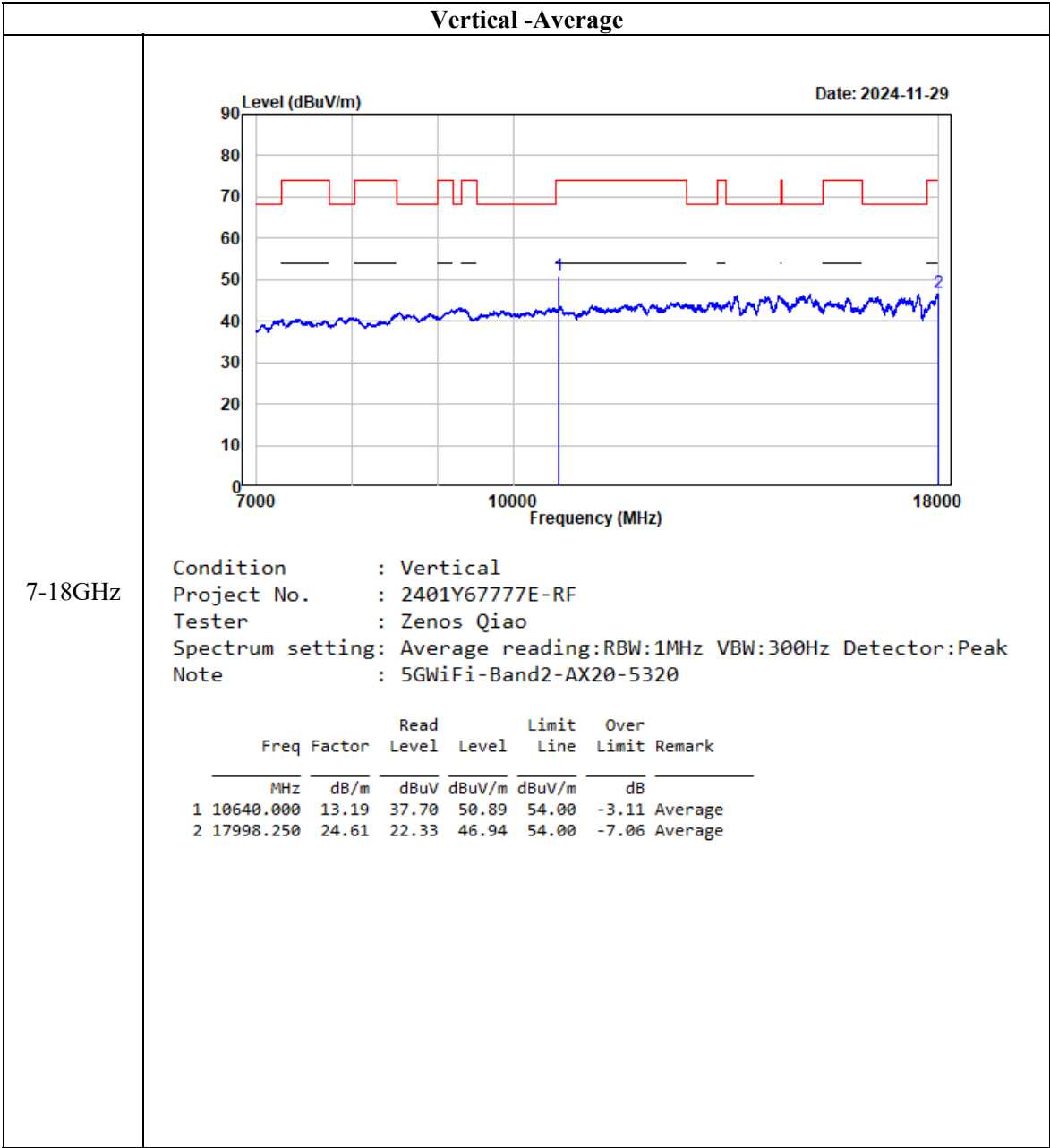




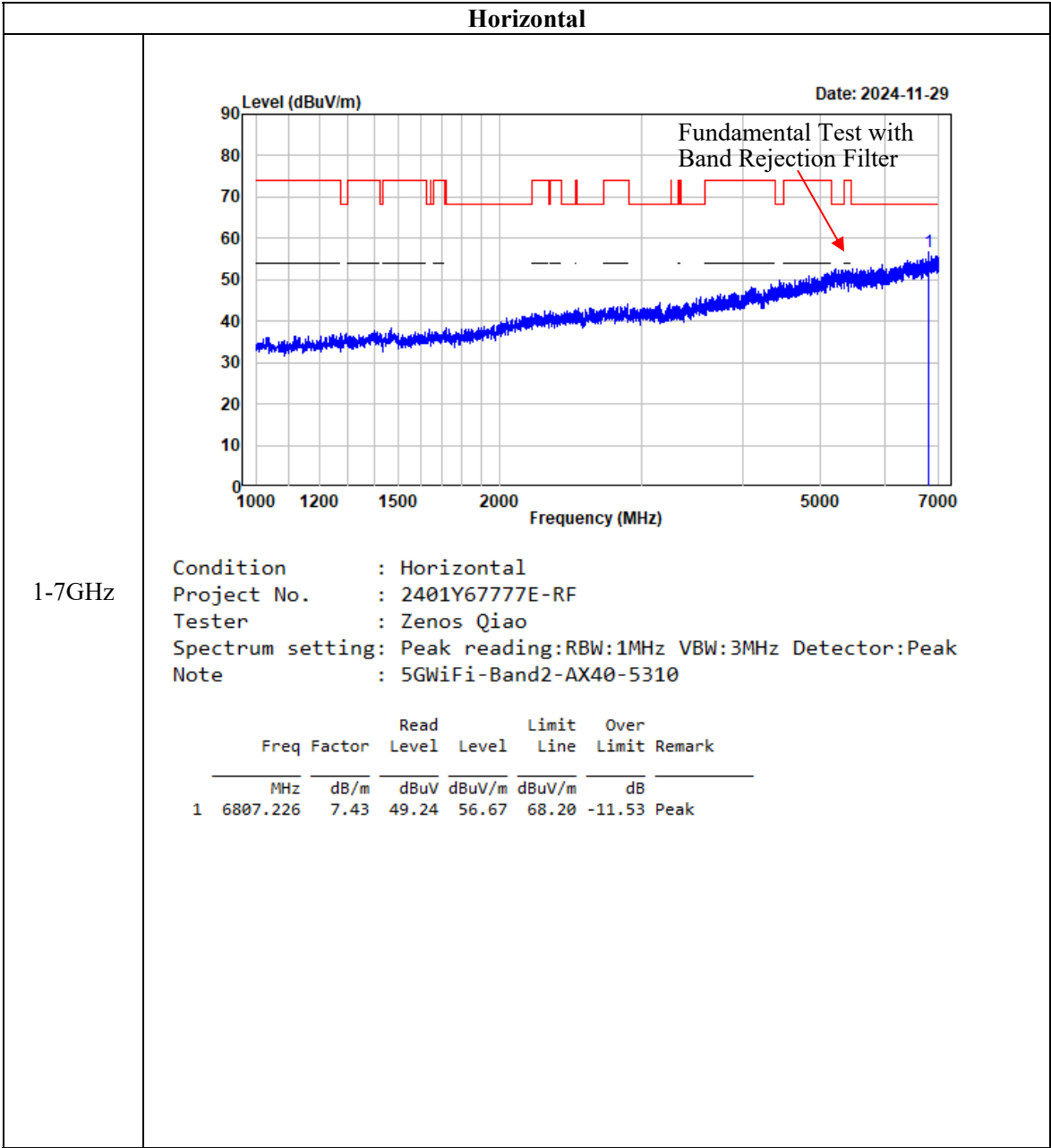


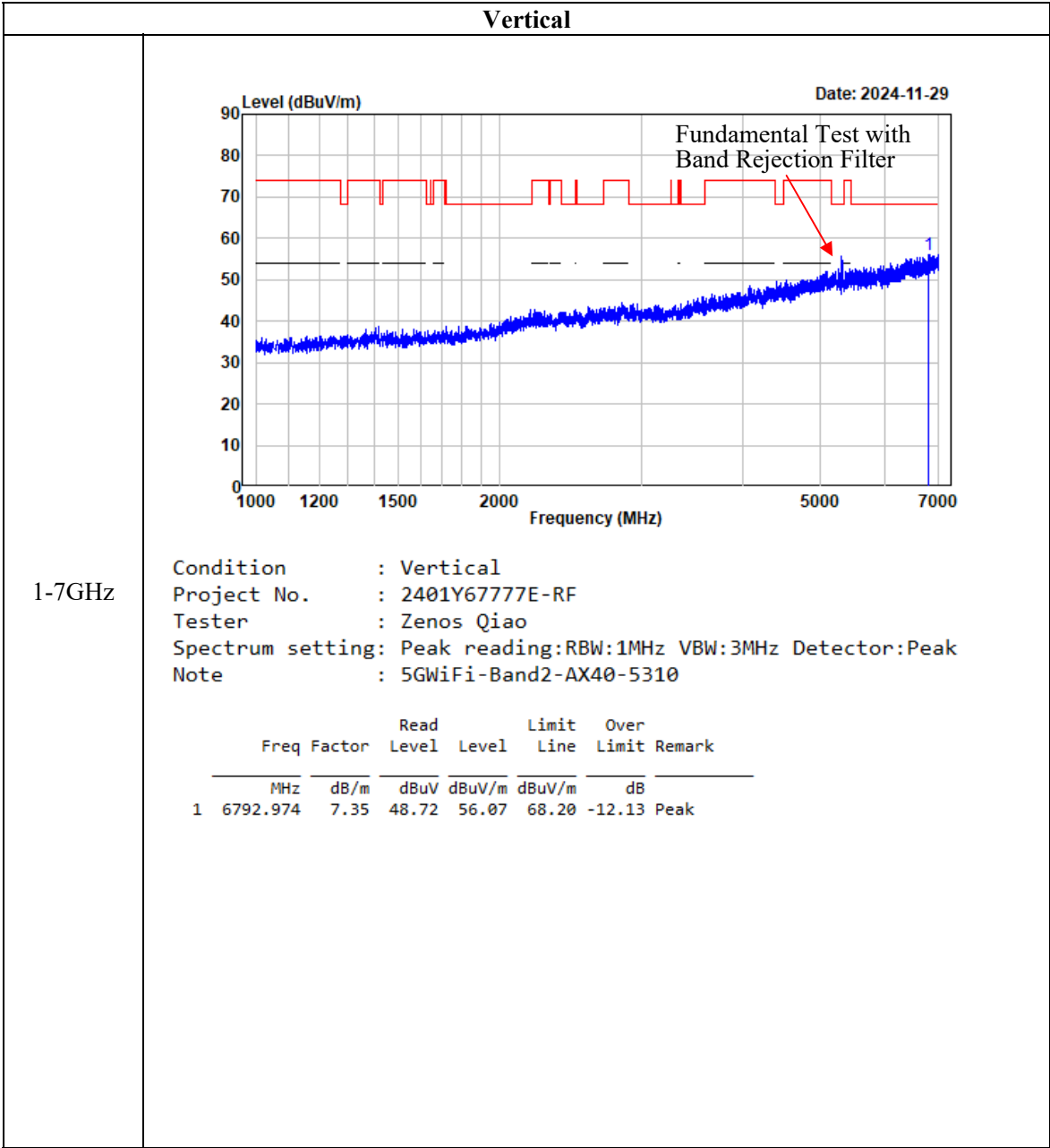


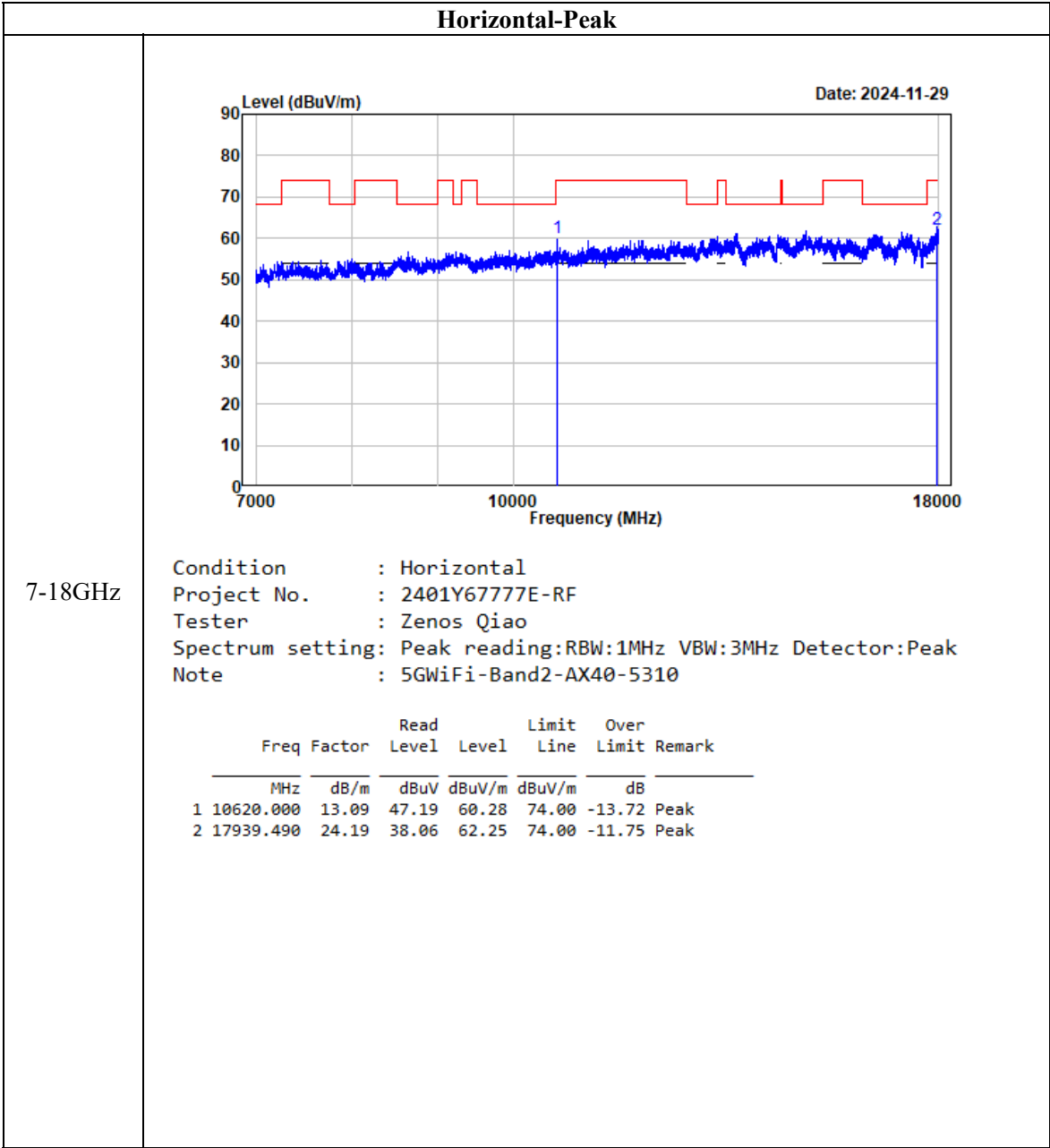


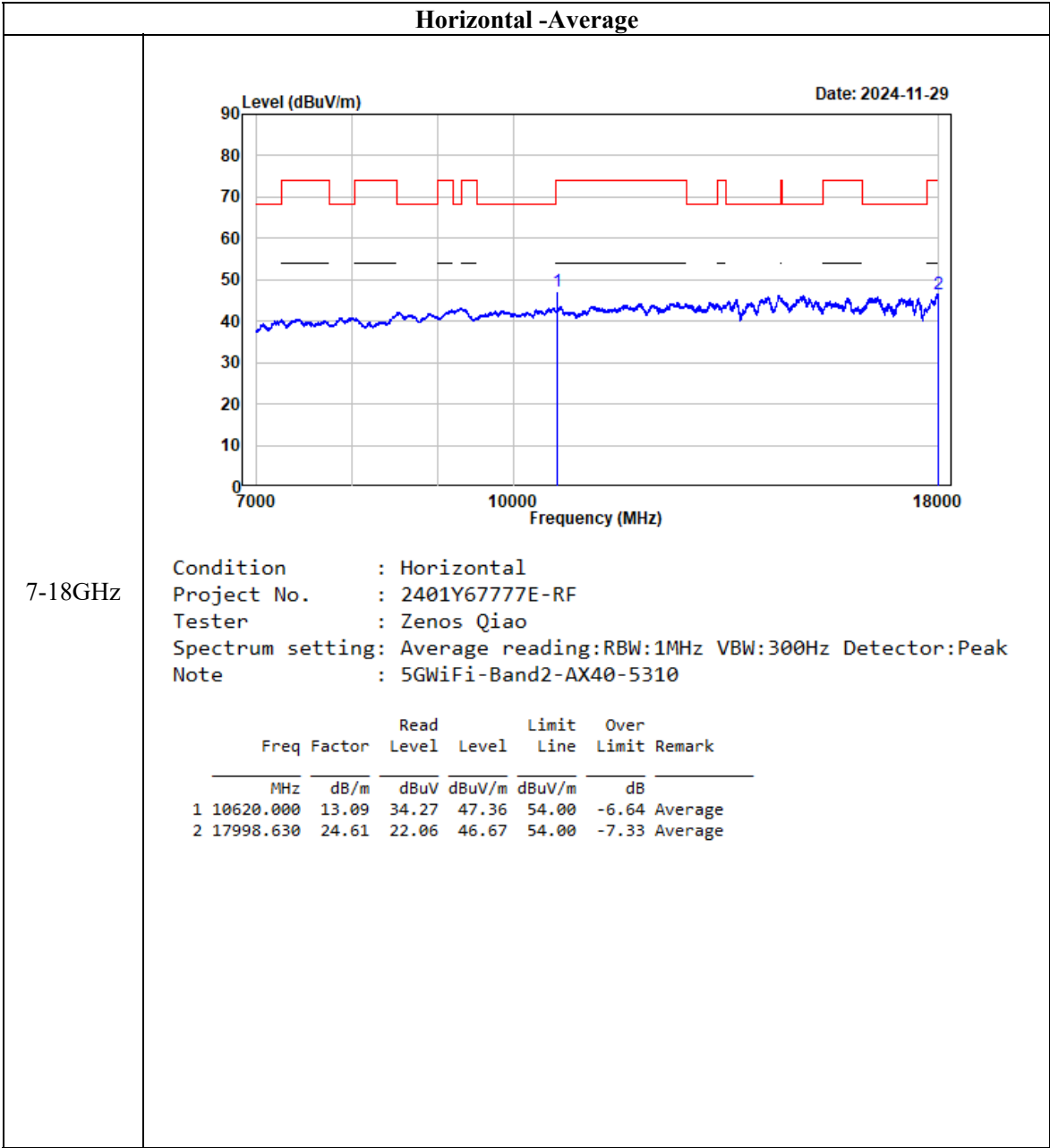


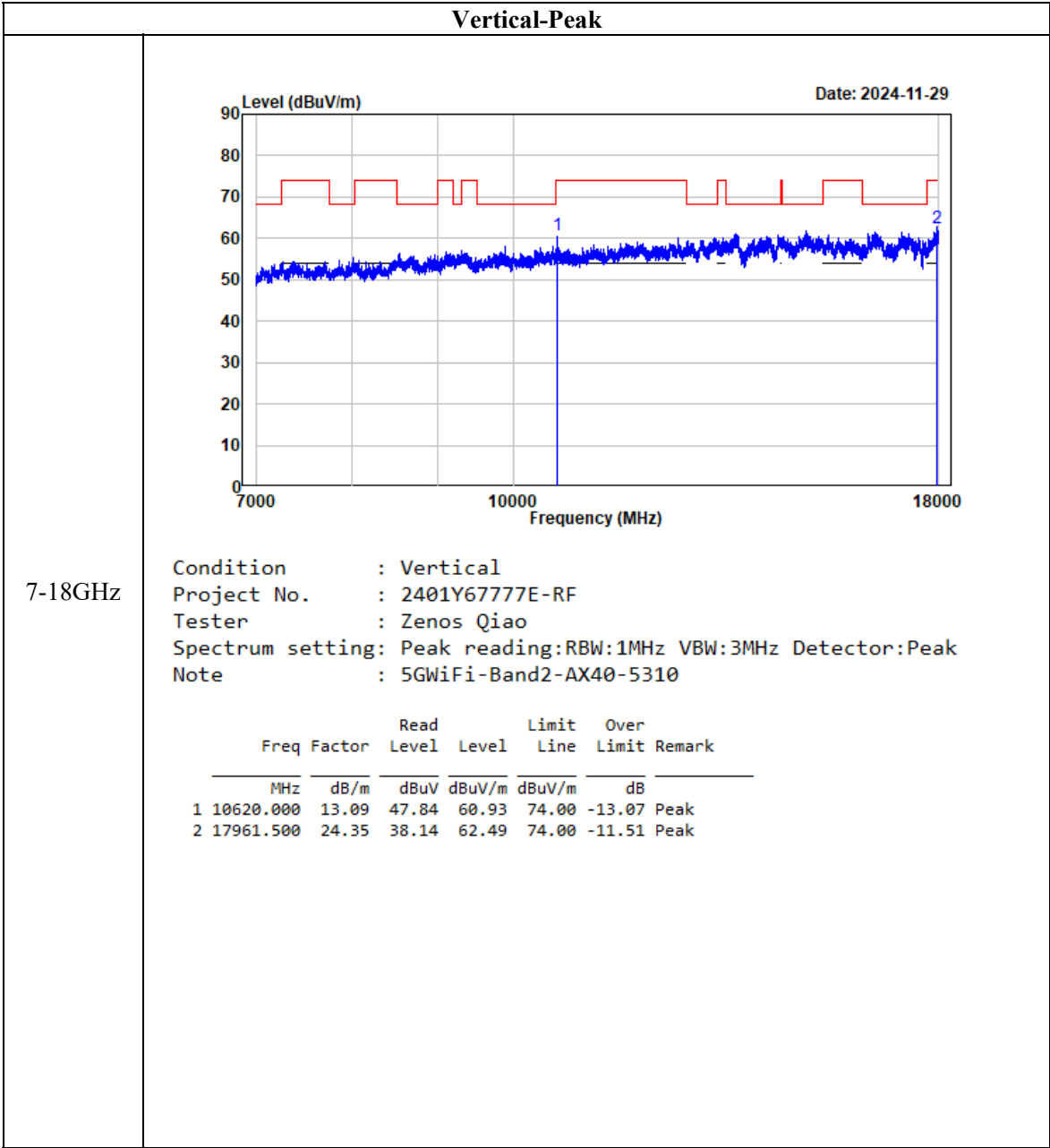
802.11 ax40

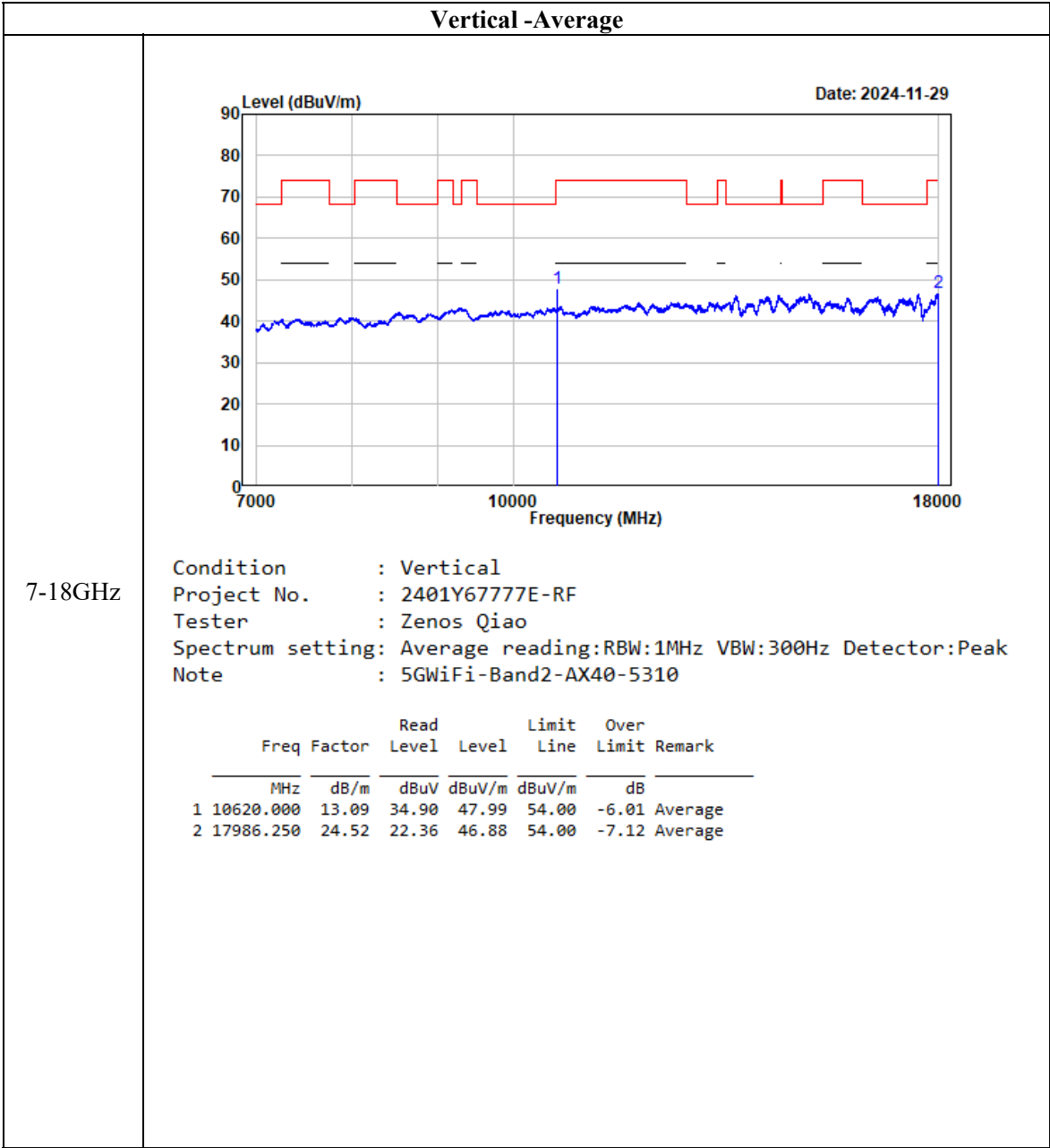




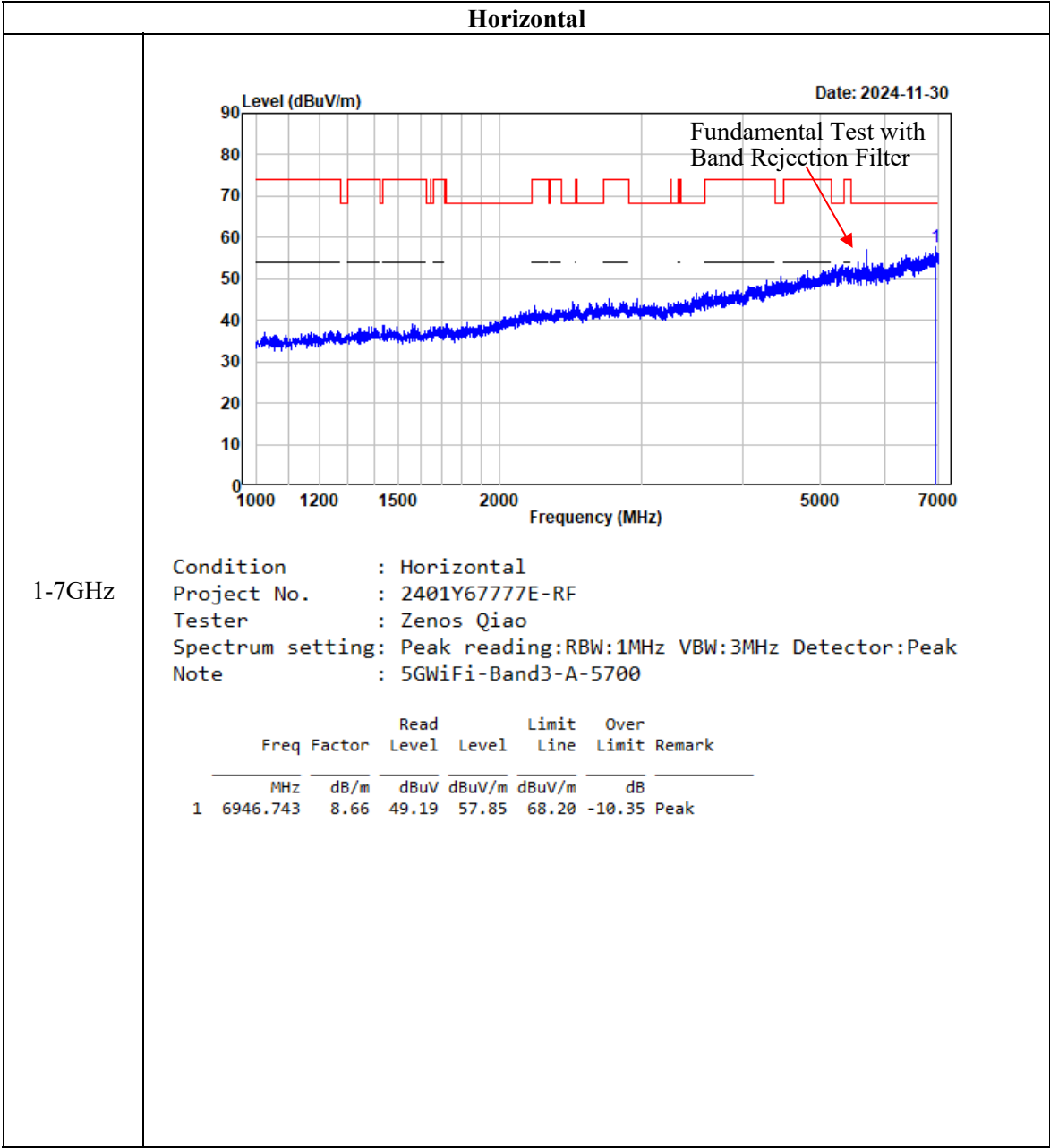


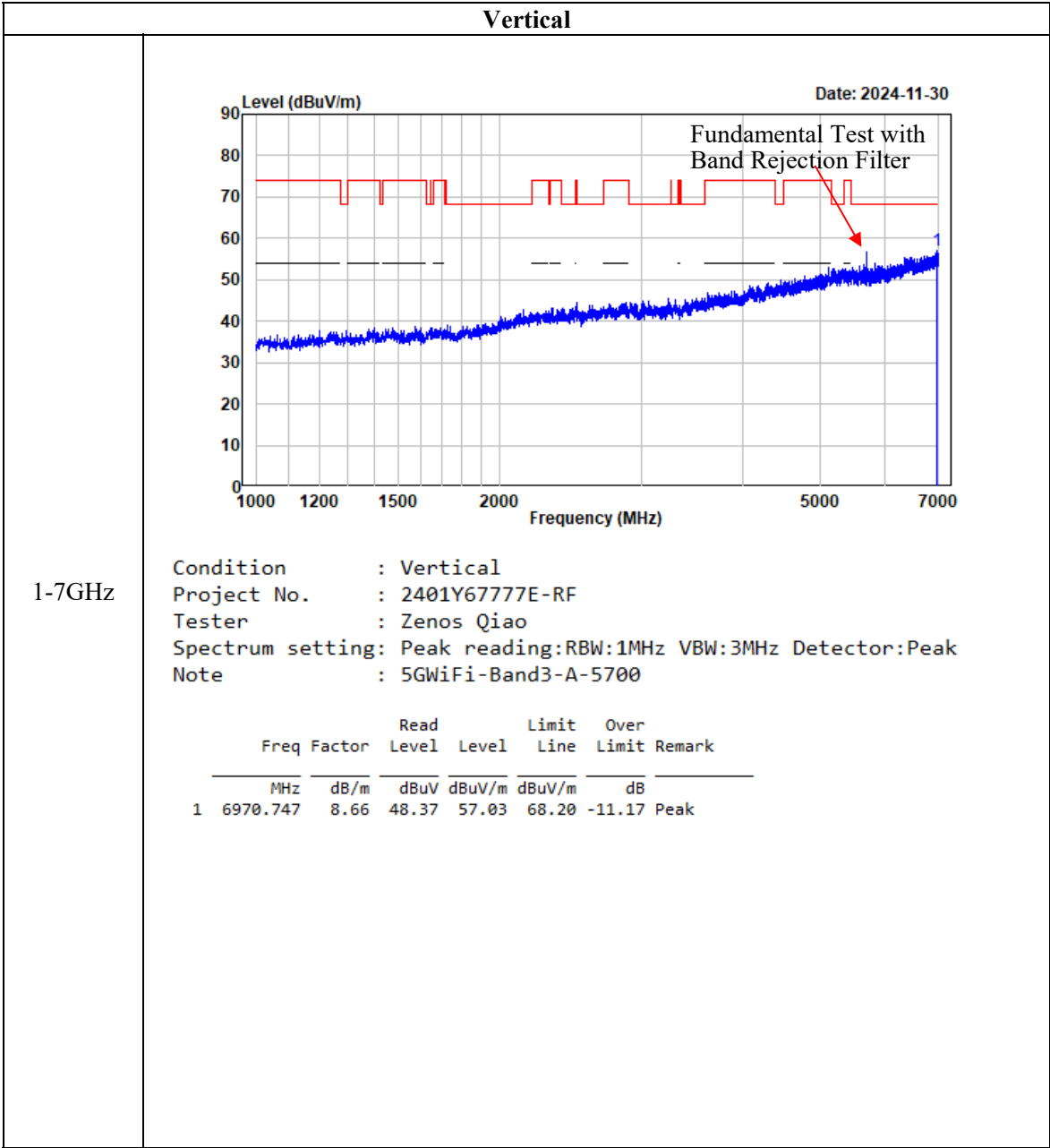


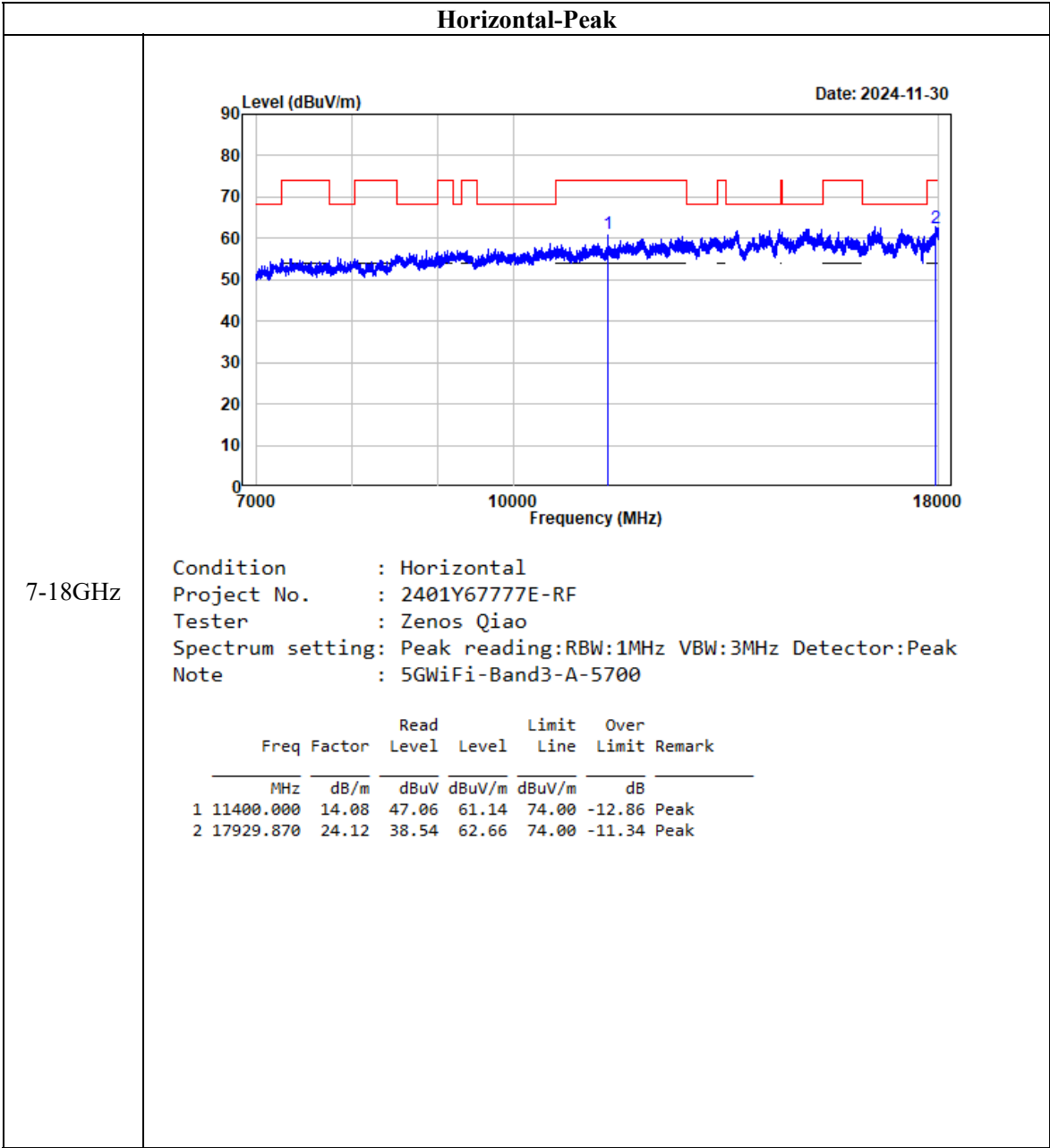


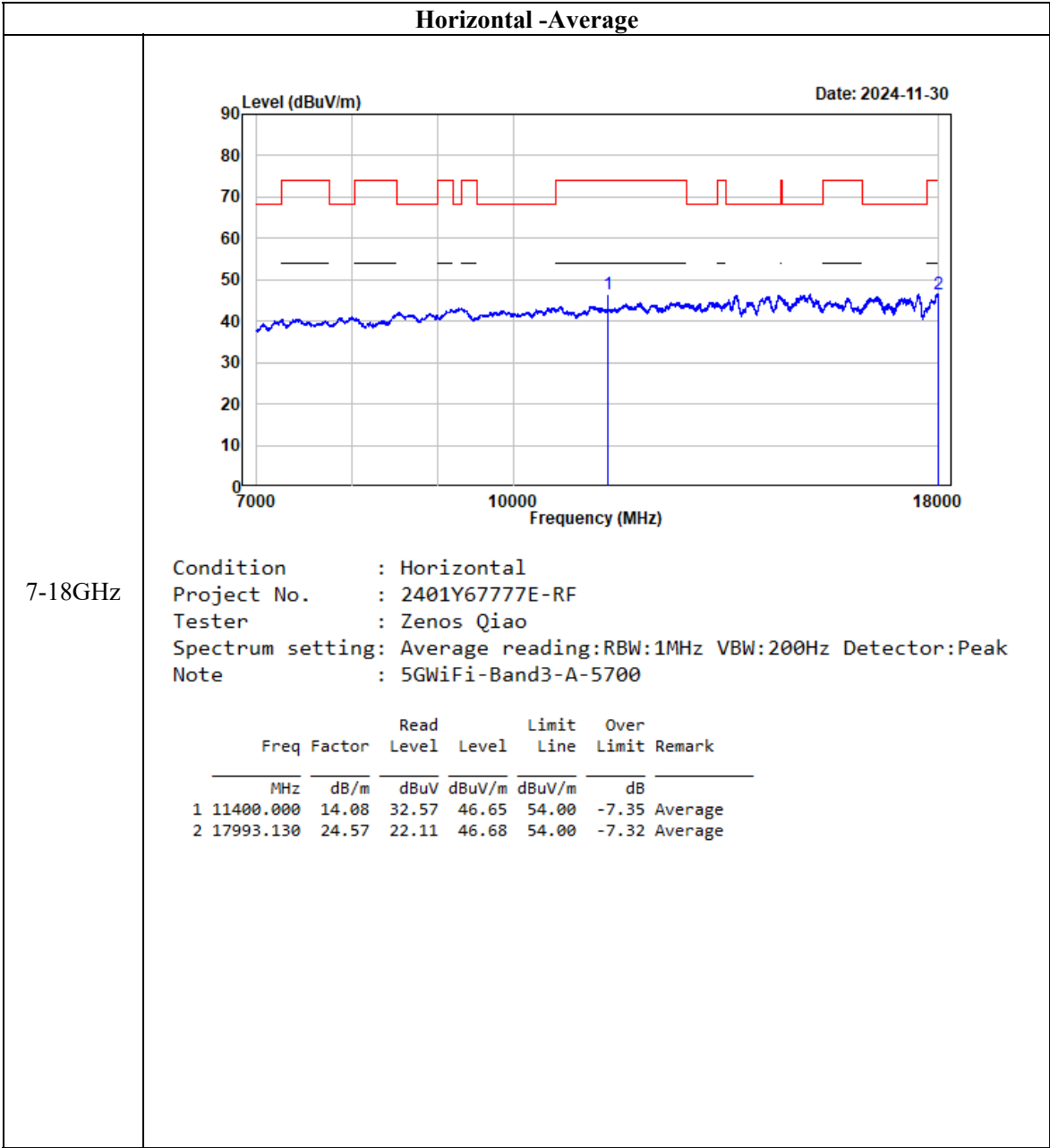


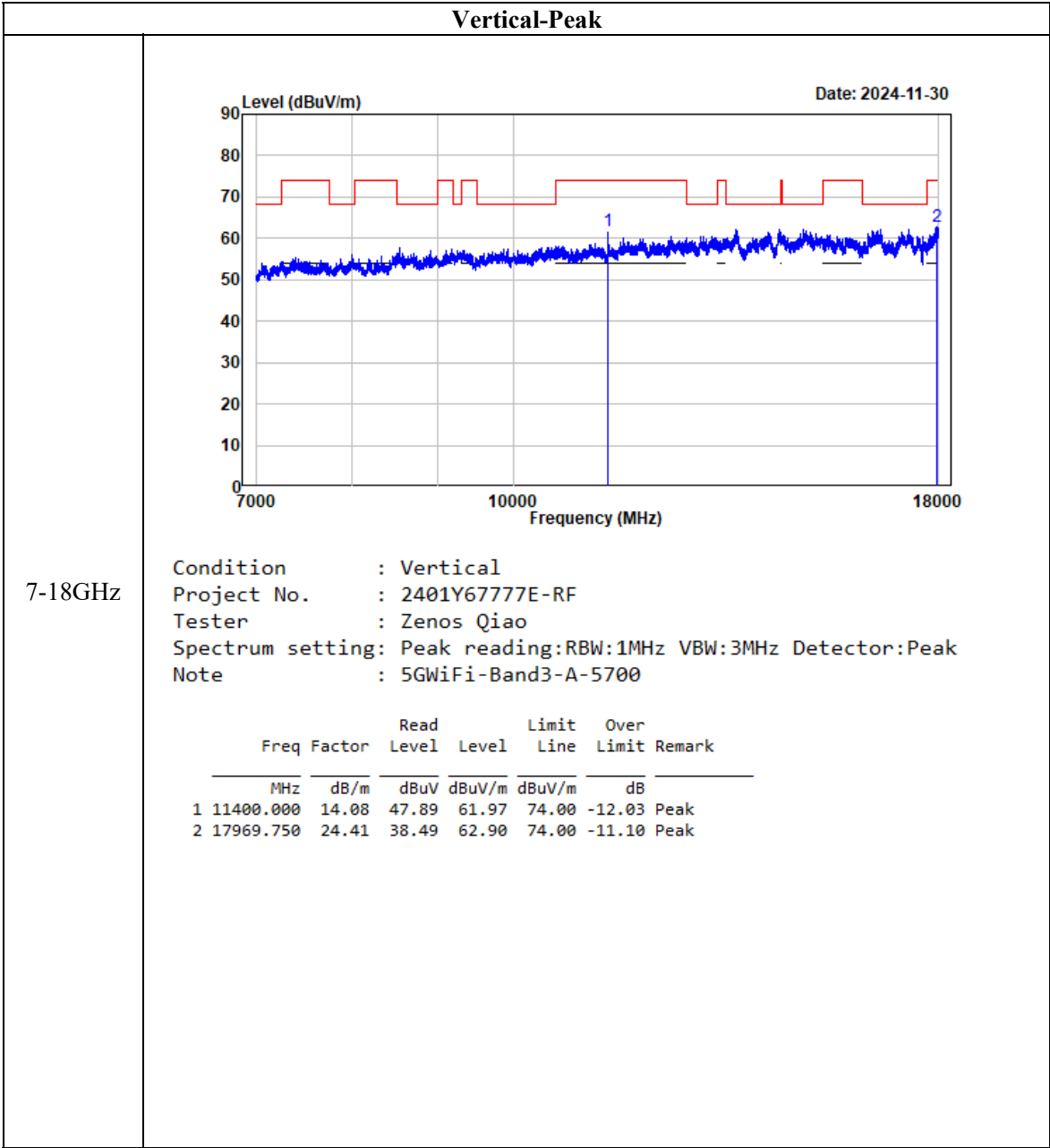
5470-5725MHz:
802.11a

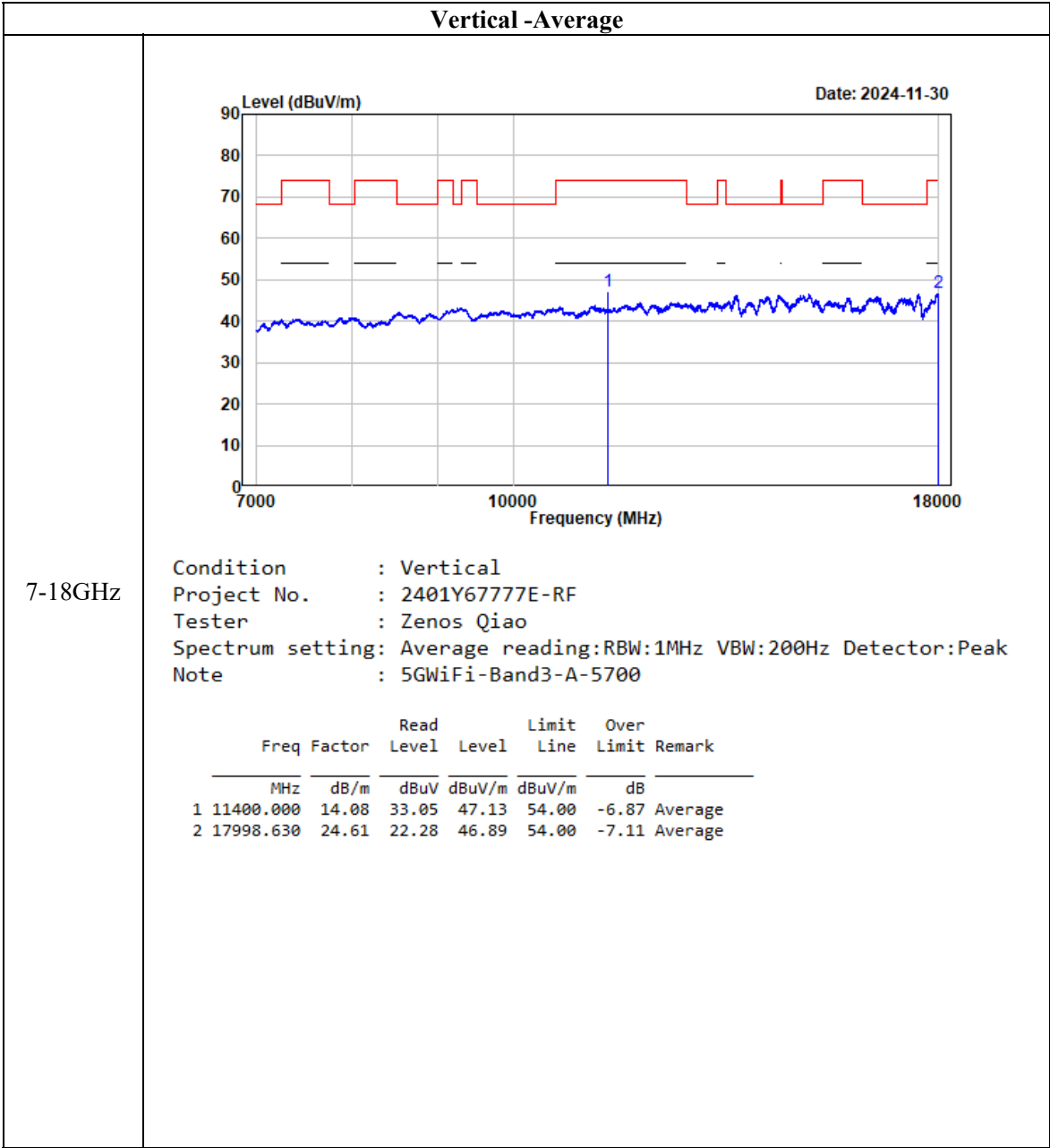




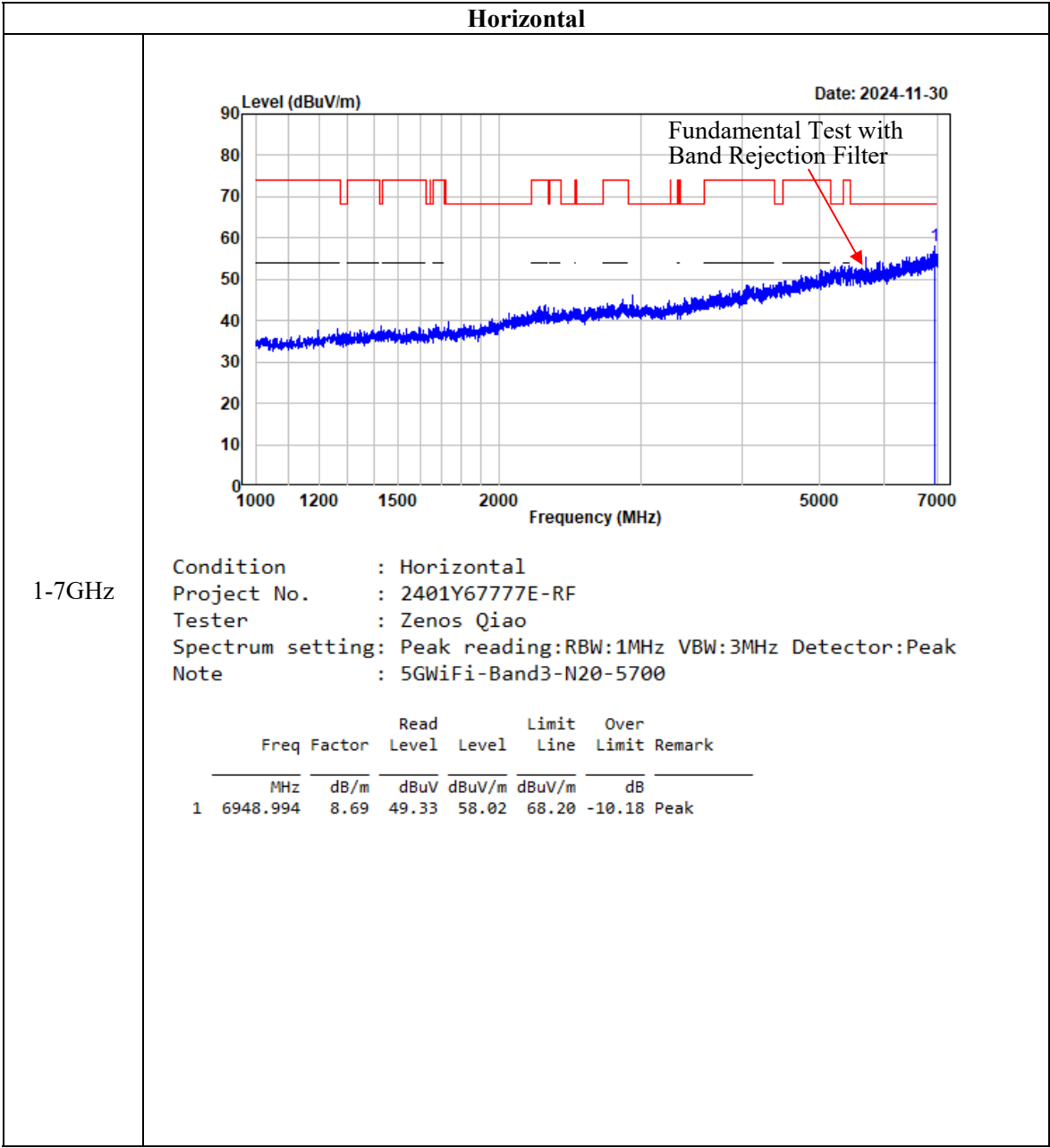




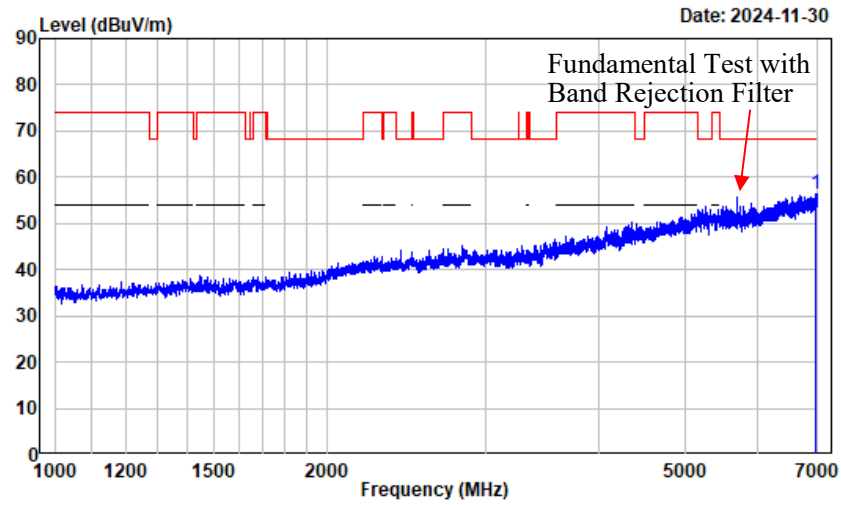




802.11 n20



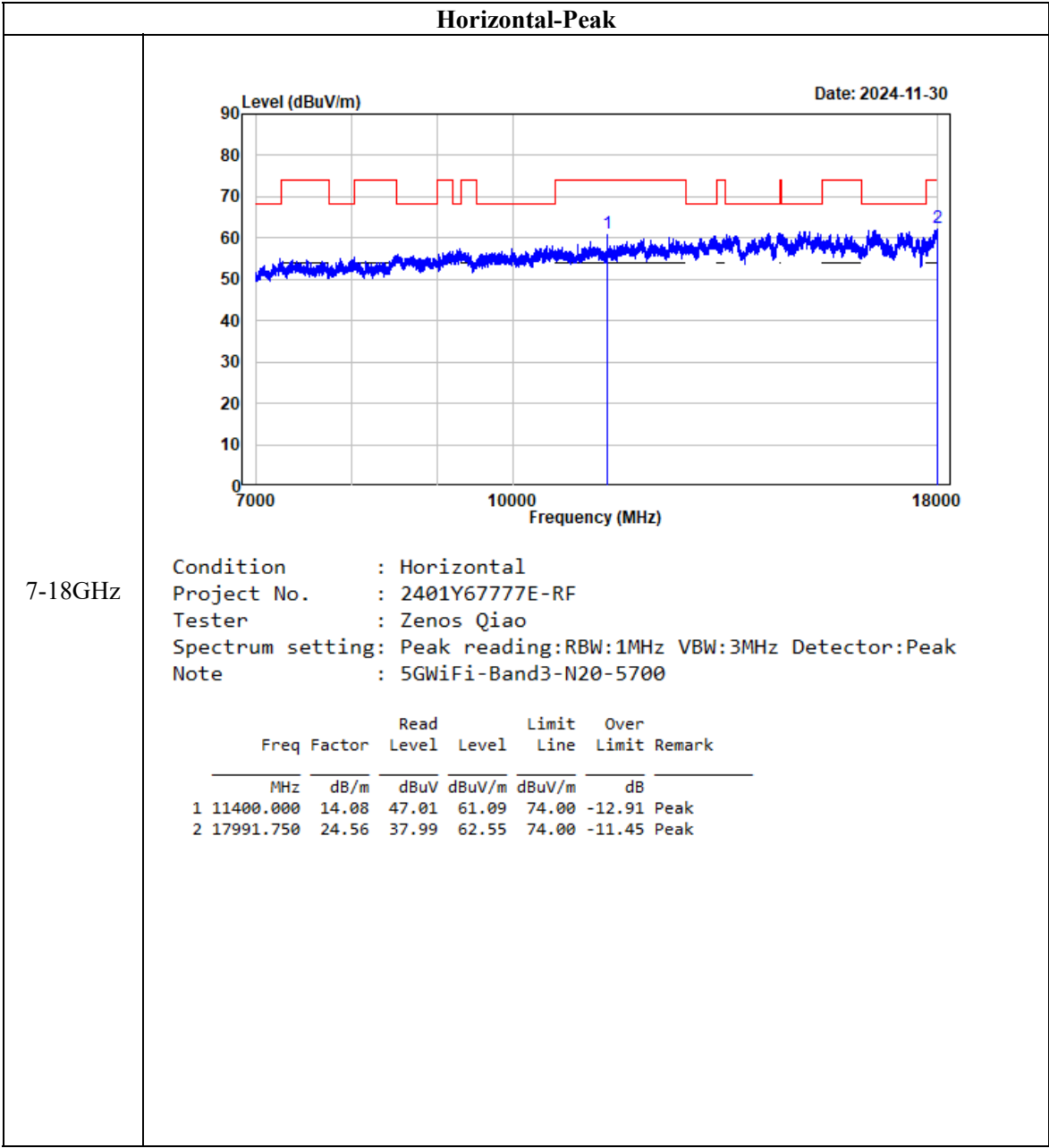
Vertical

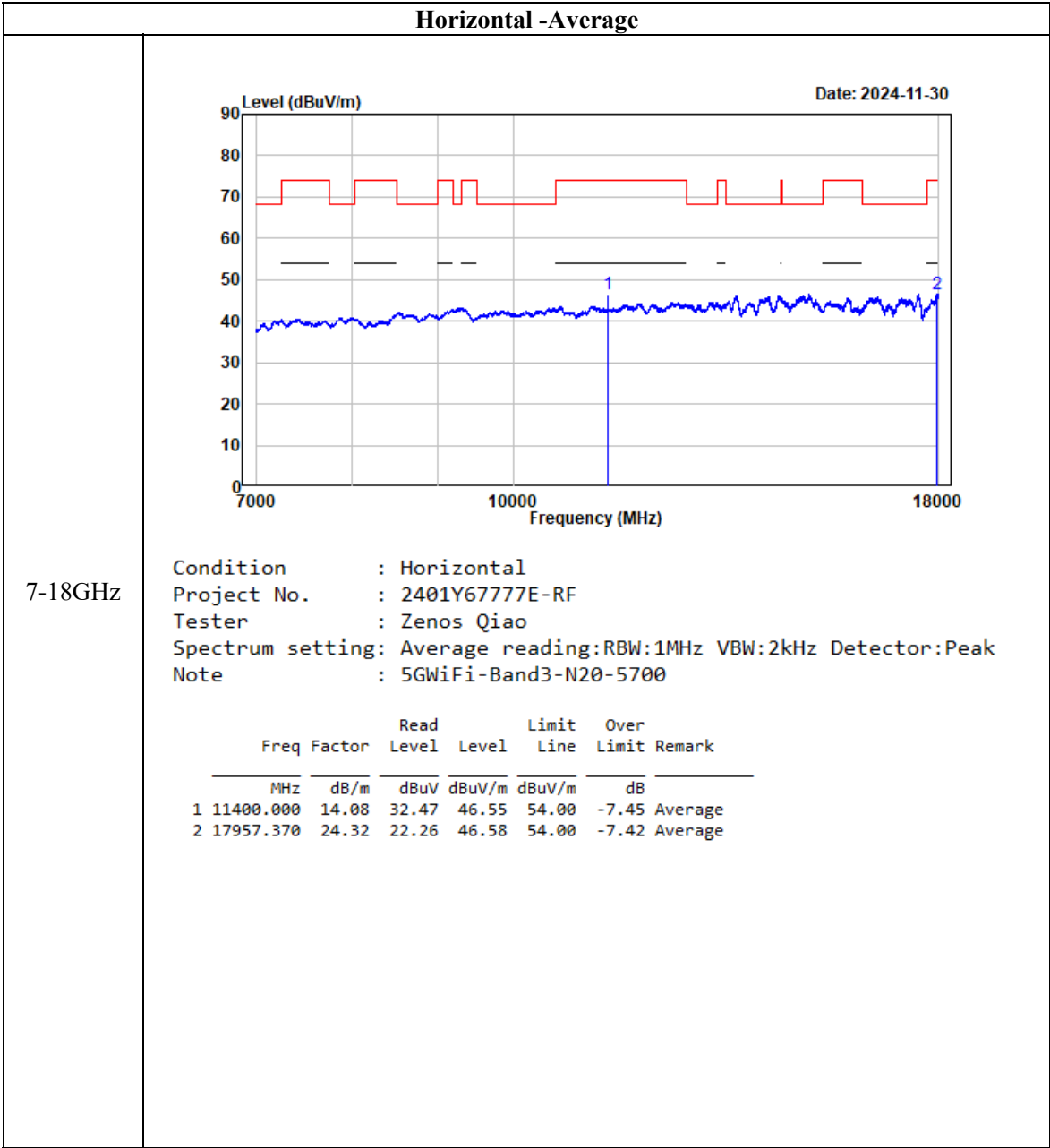


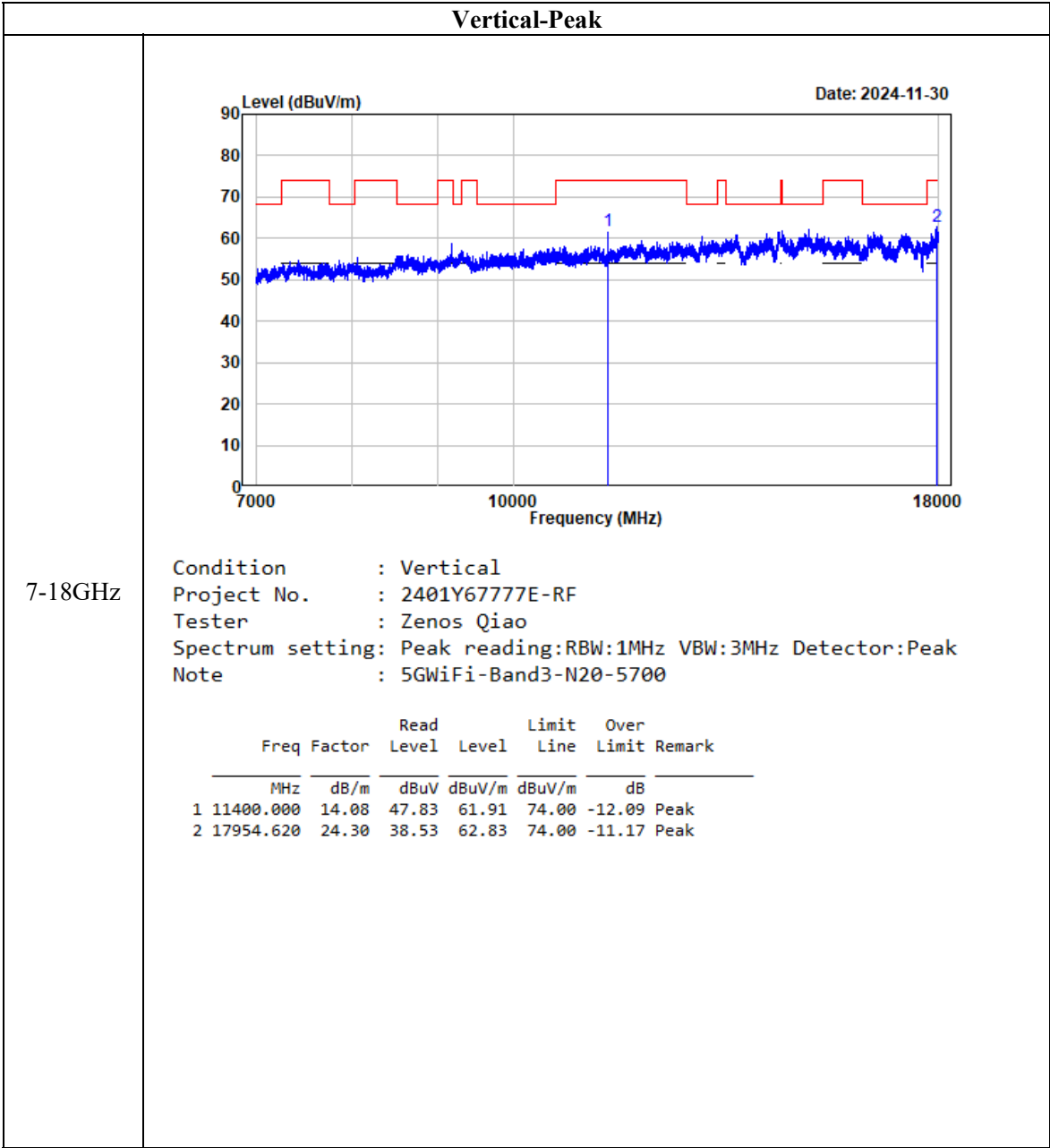
1-7GHz

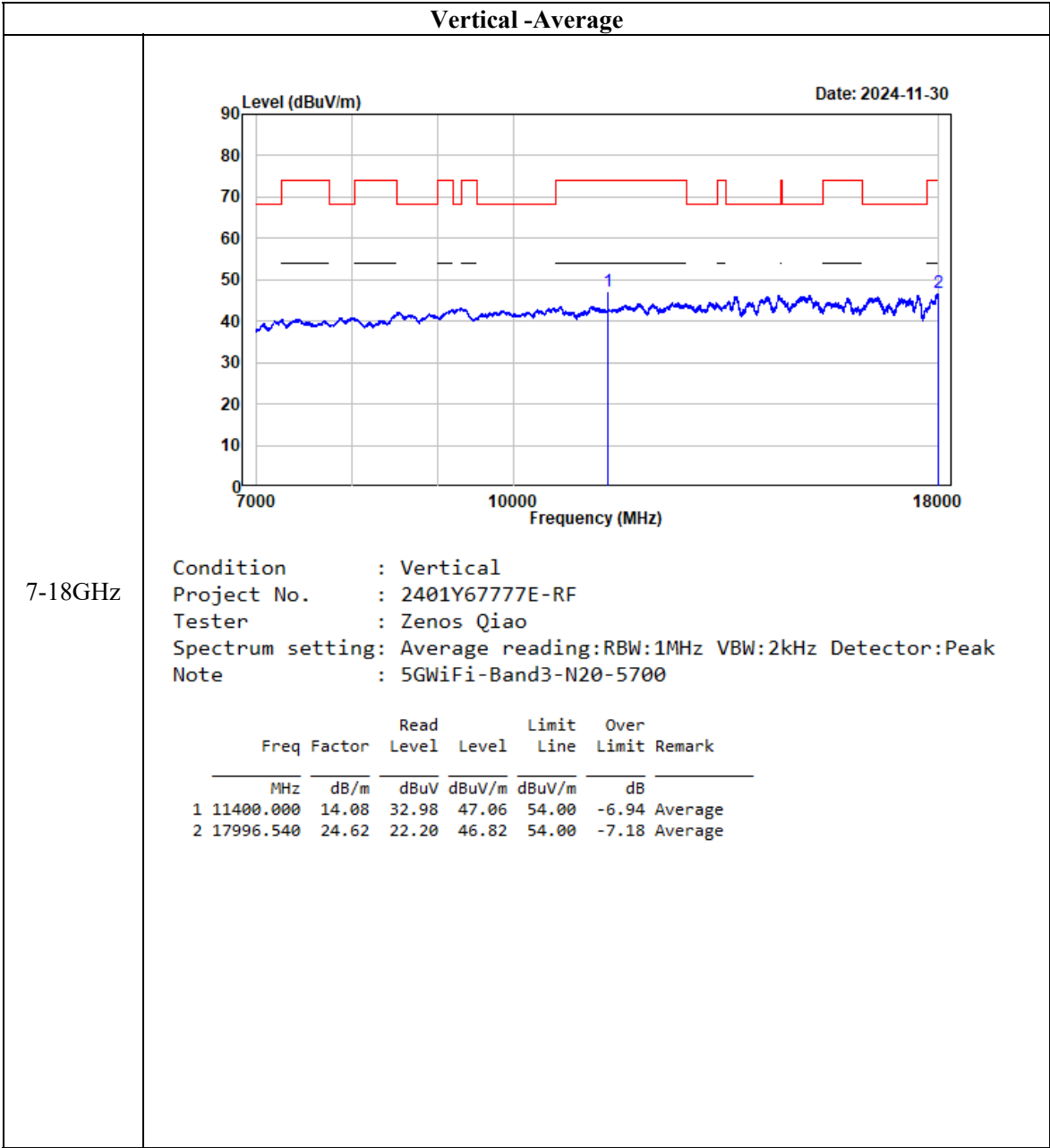
Condition : Vertical
Project No. : 2401Y67777E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band3-N20-5700

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6957.245	8.68	47.82	56.50	68.20	-11.70	Peak

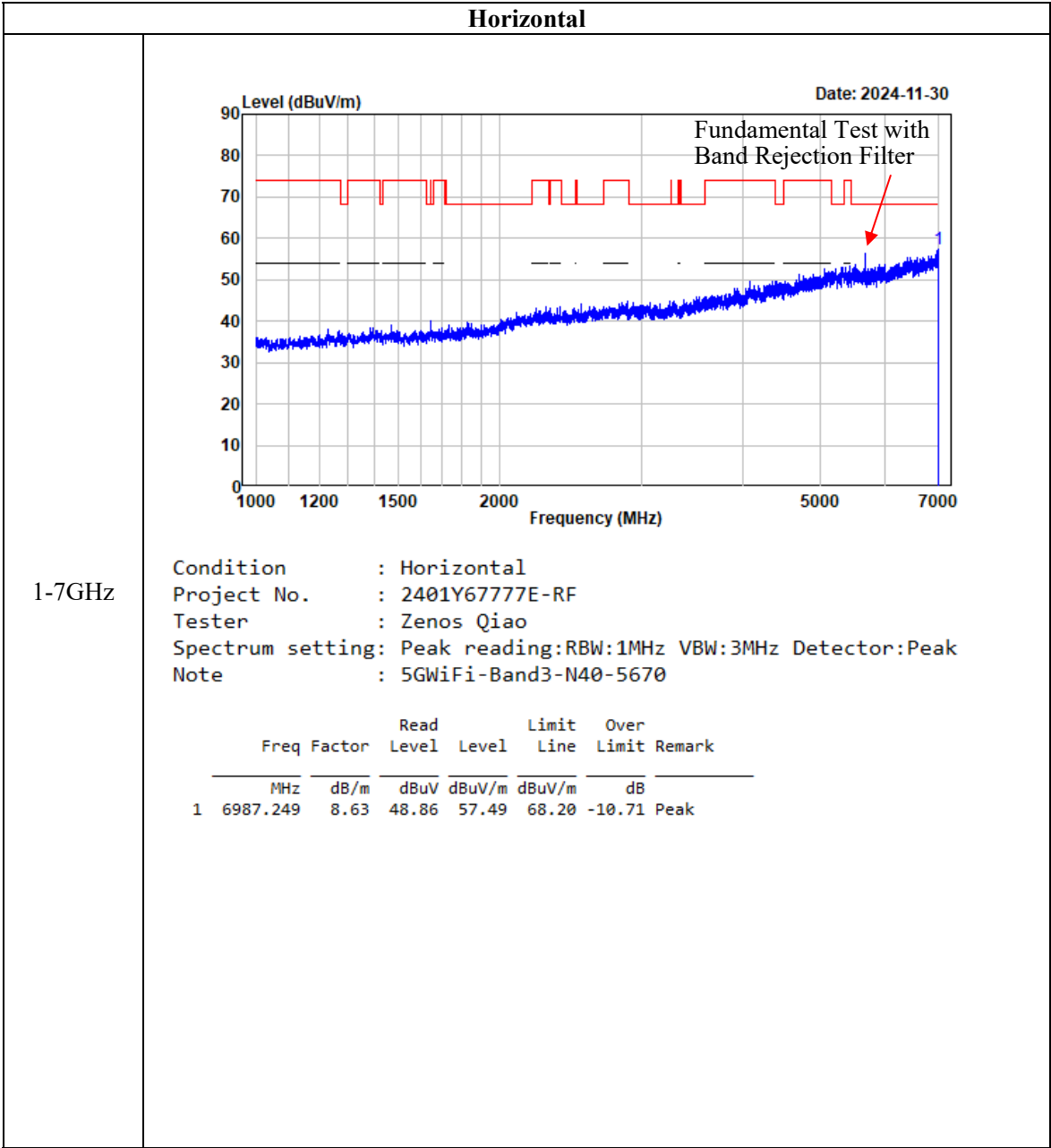


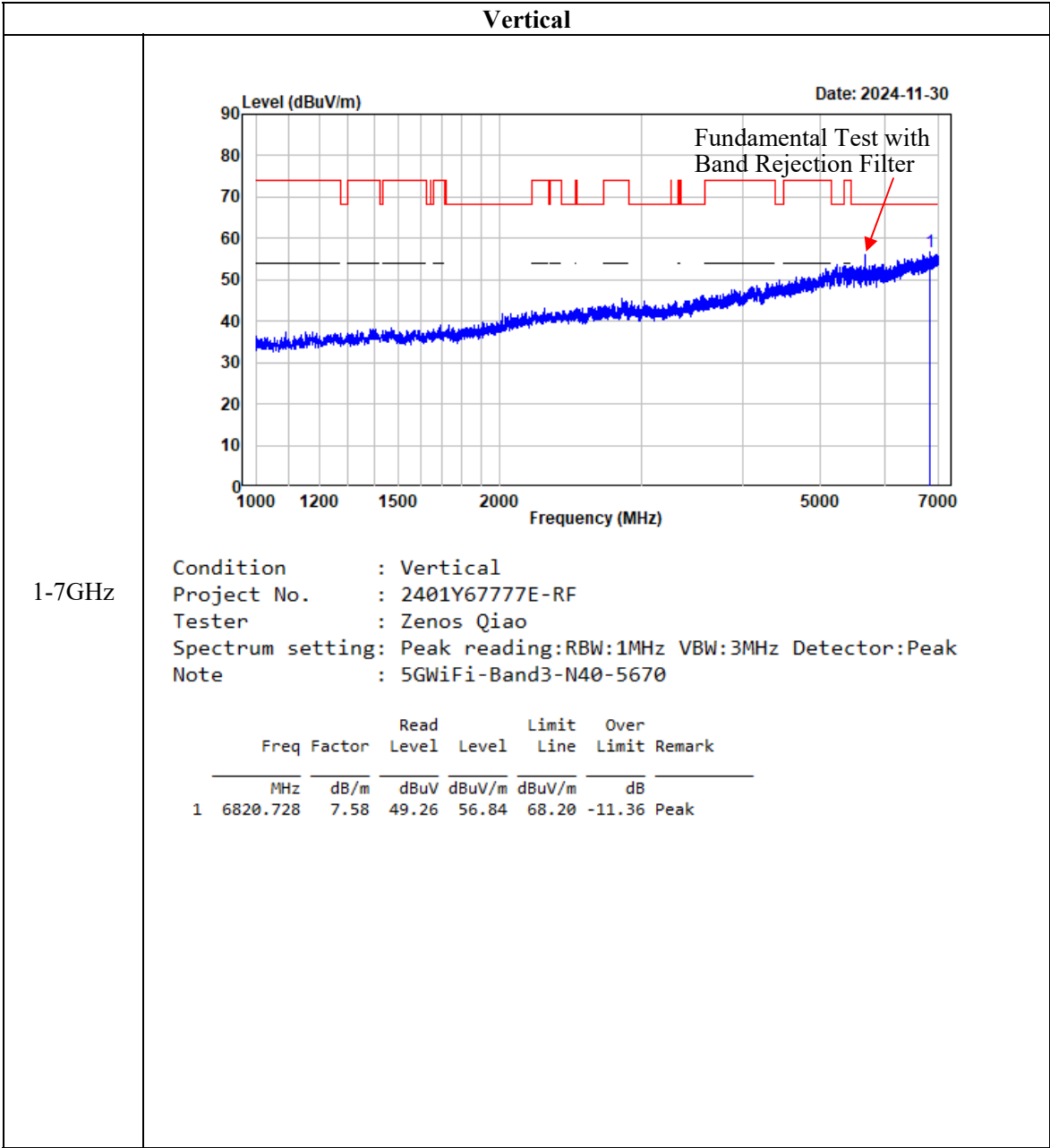


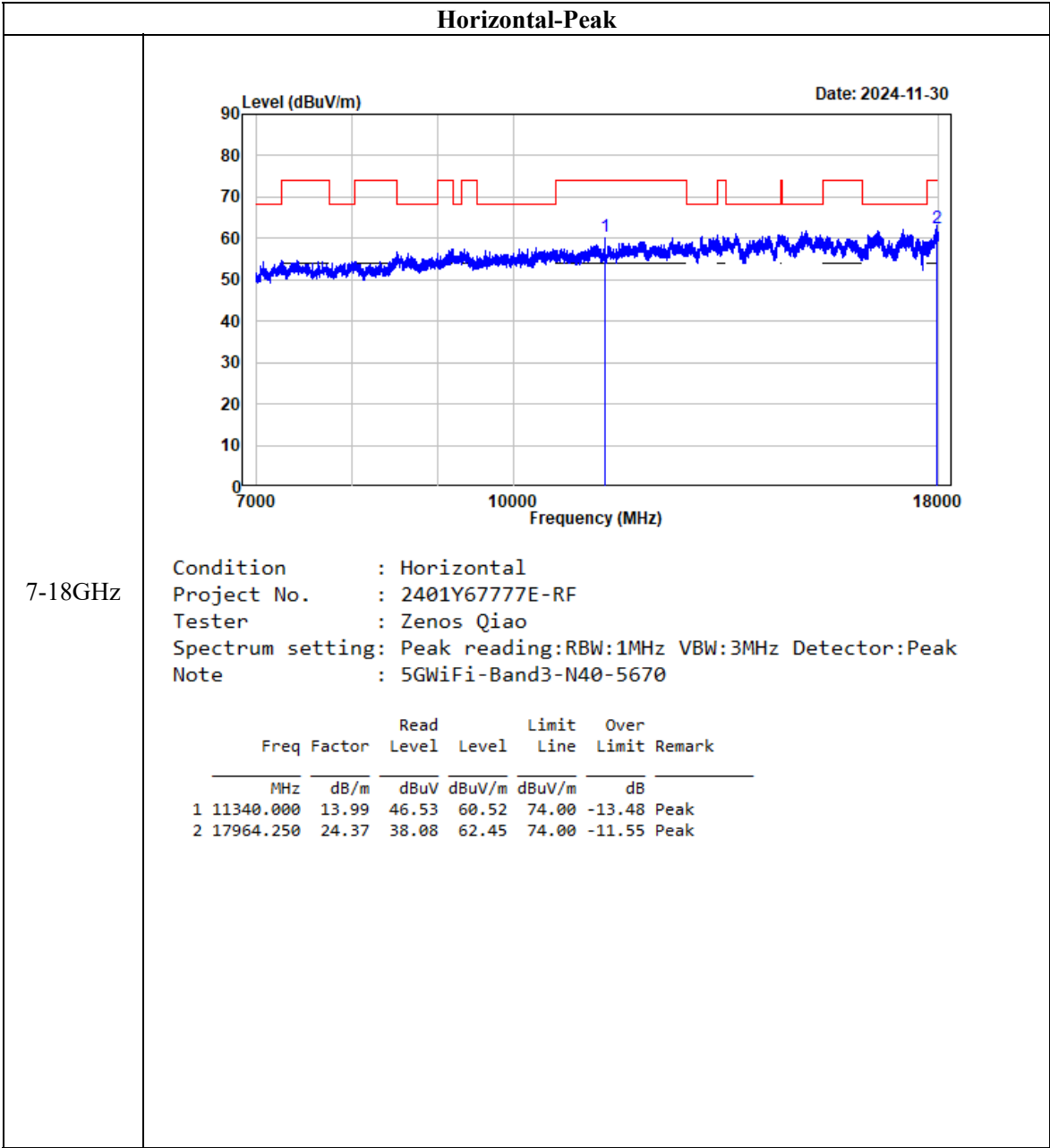


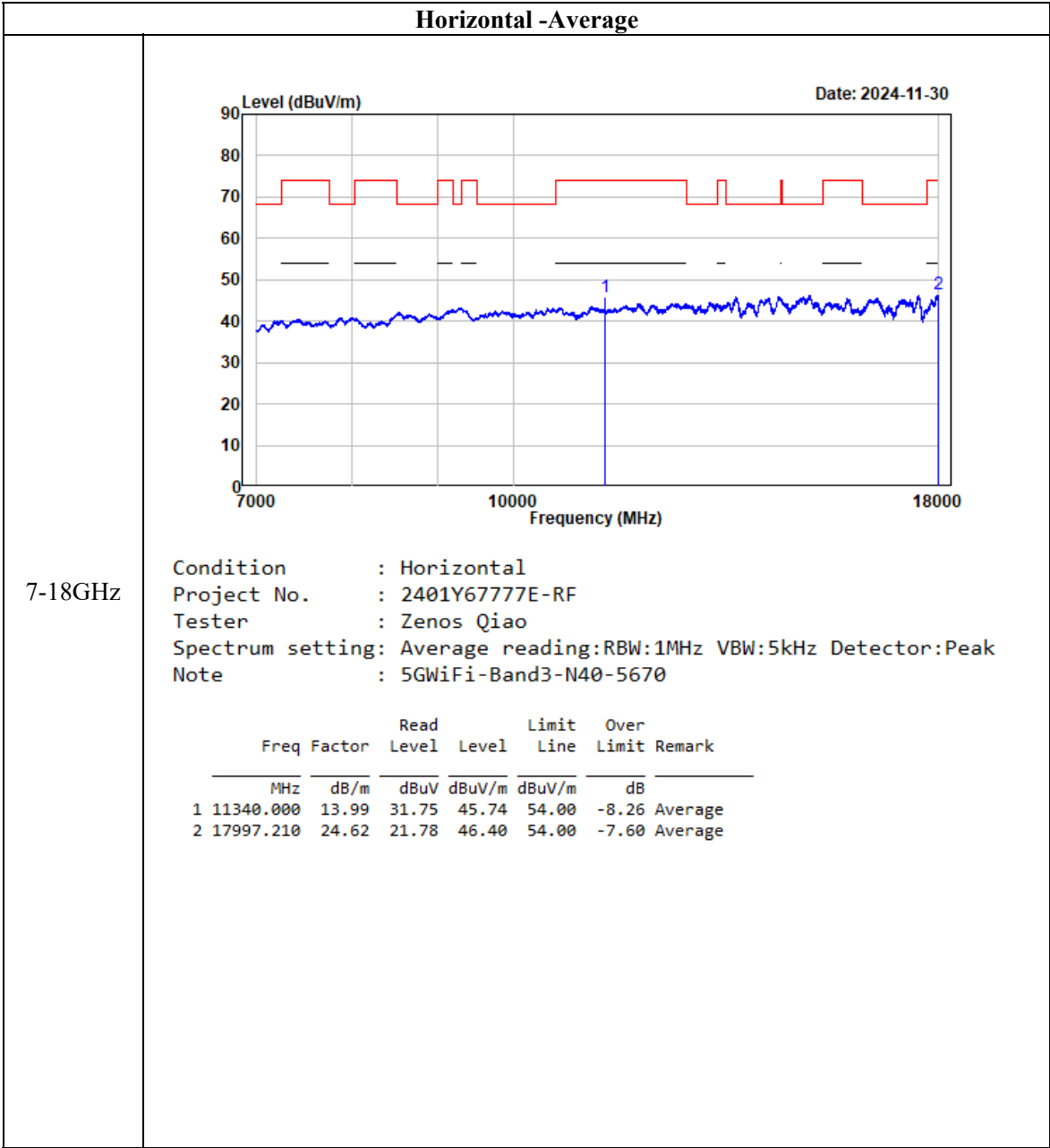


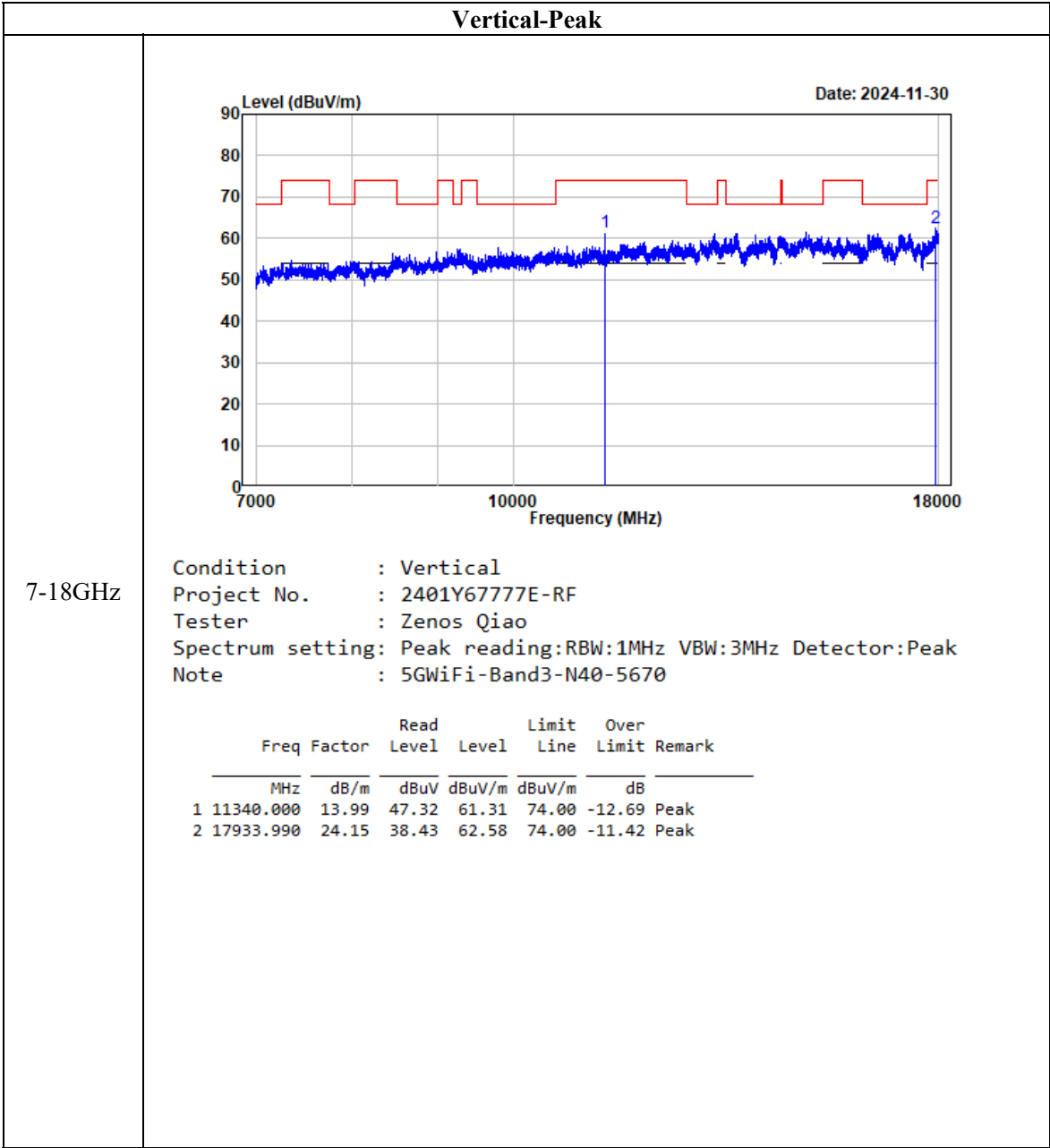
802.11 n40

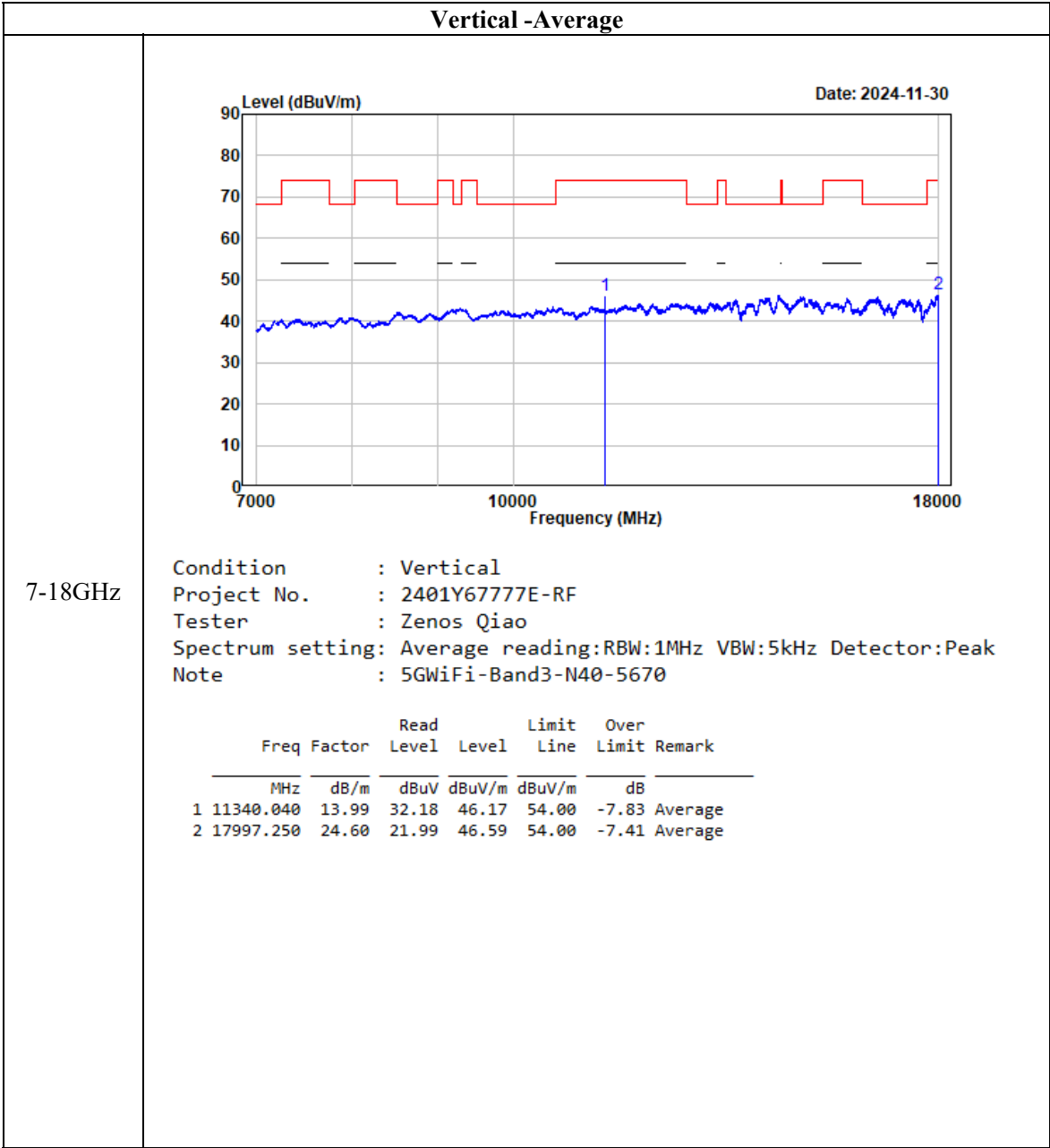




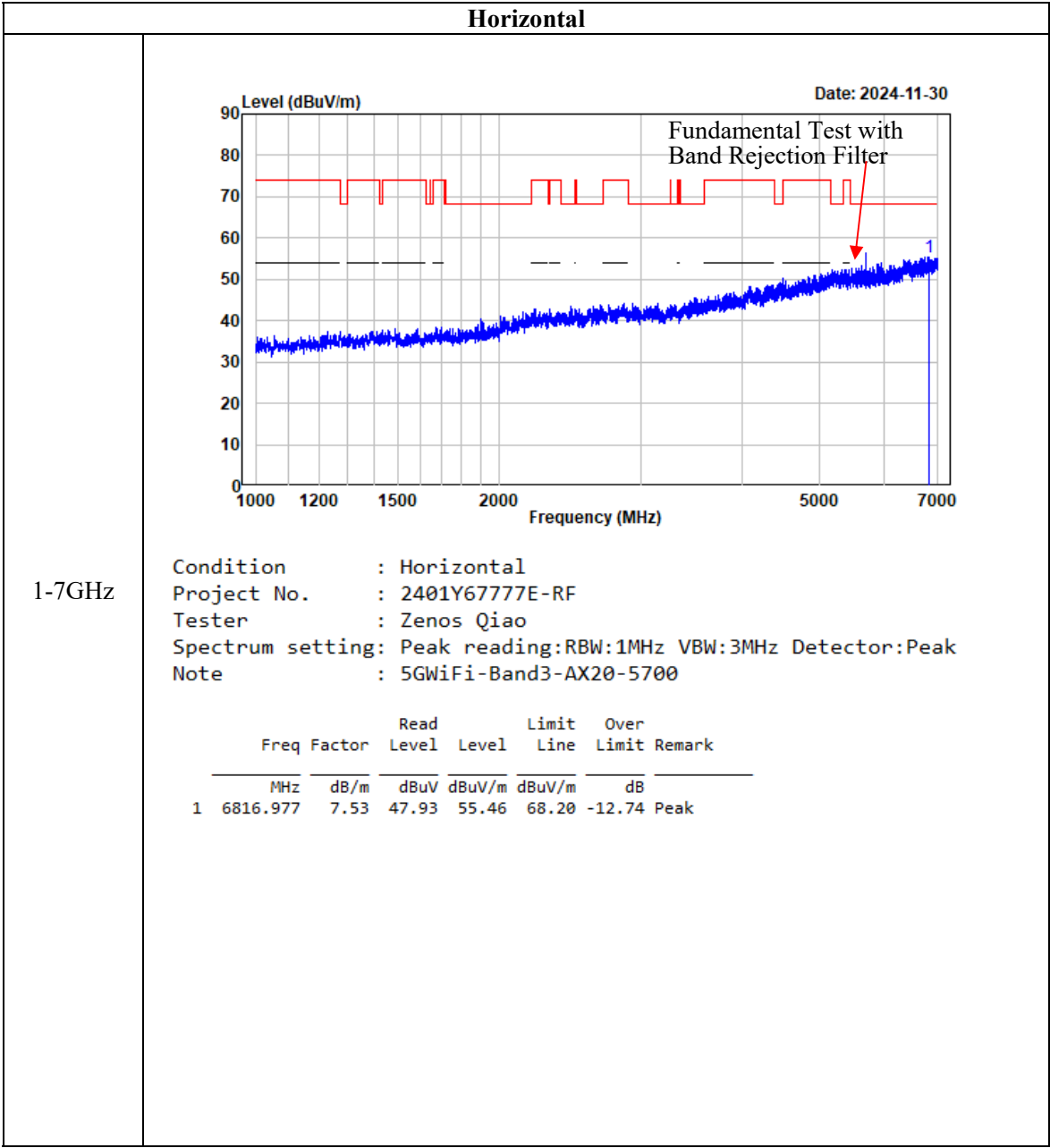




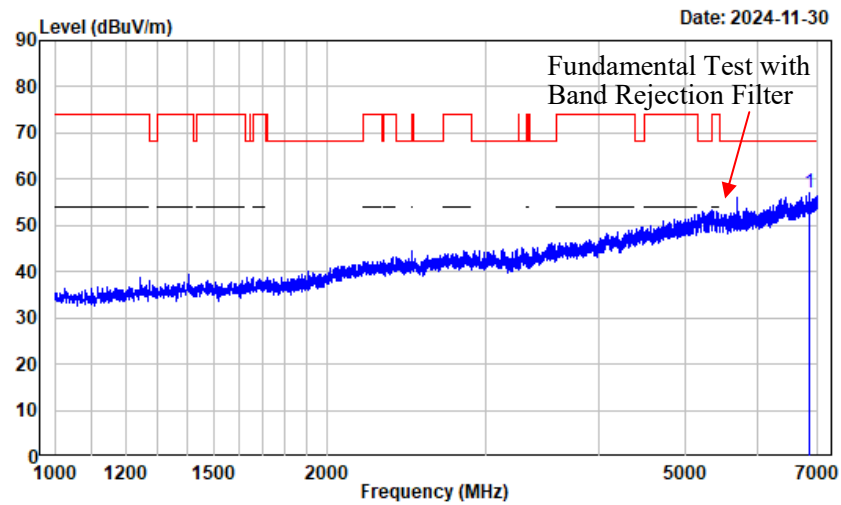




802.11 ax20



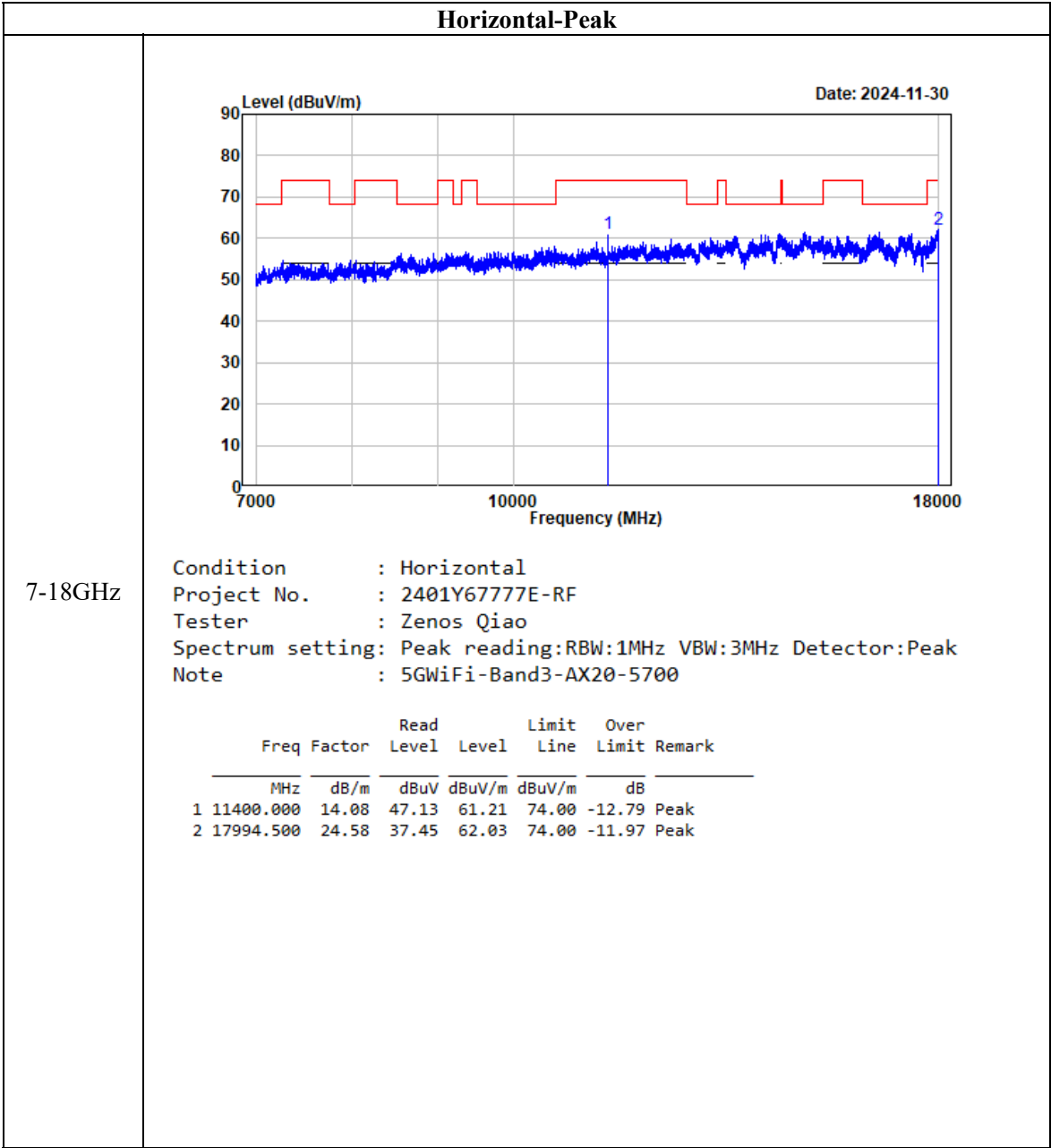
Vertical

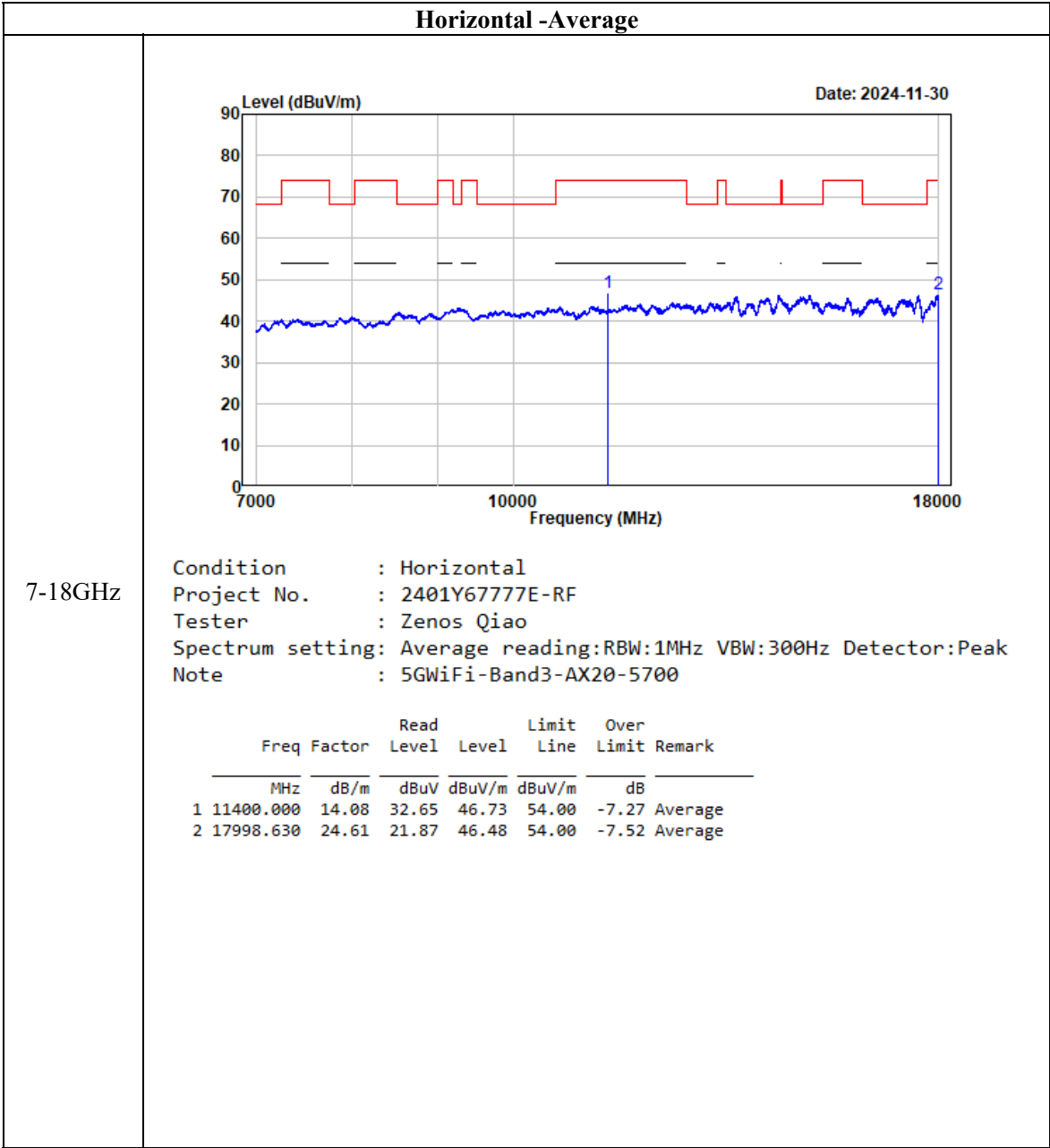


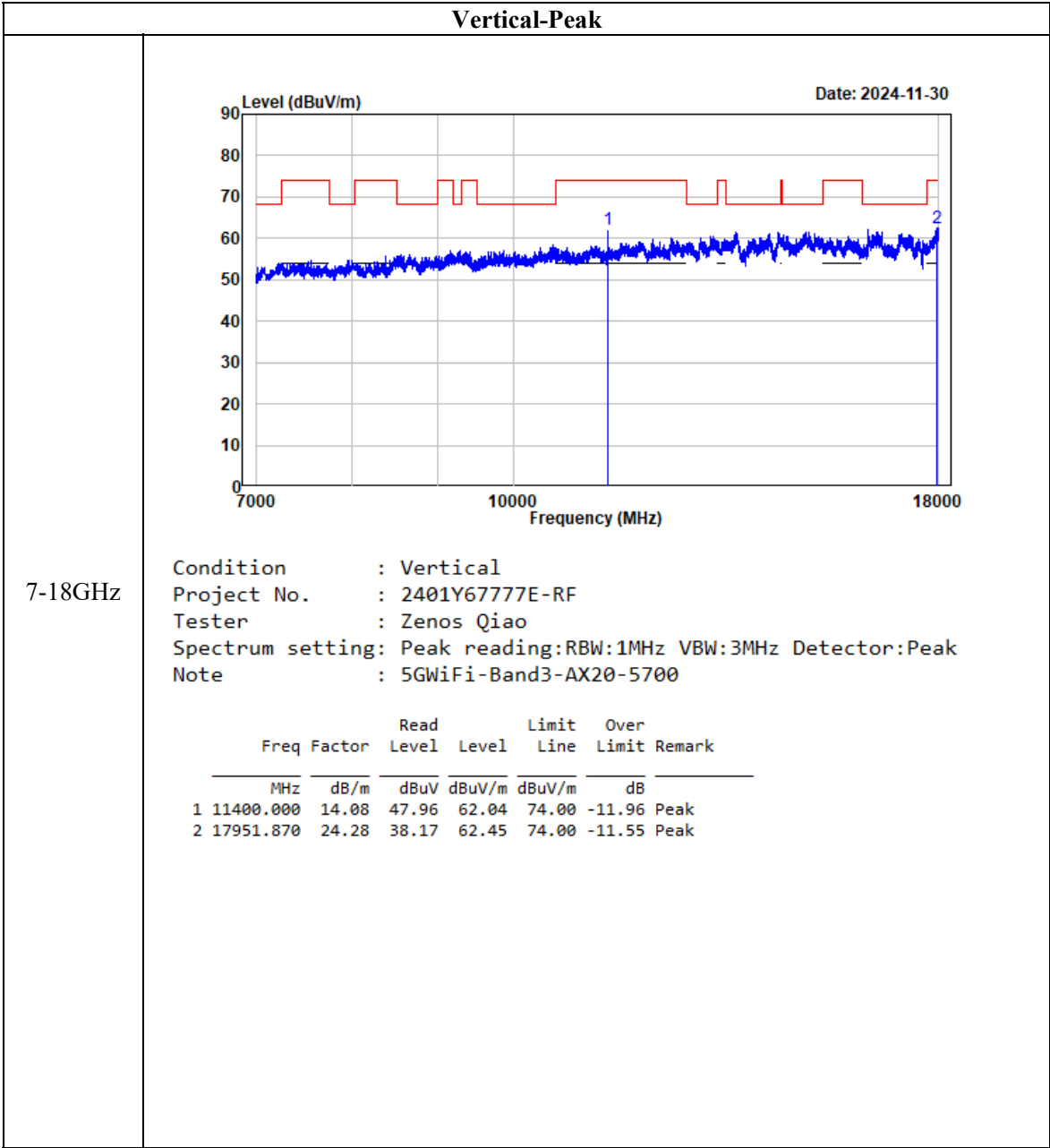
1-7GHz

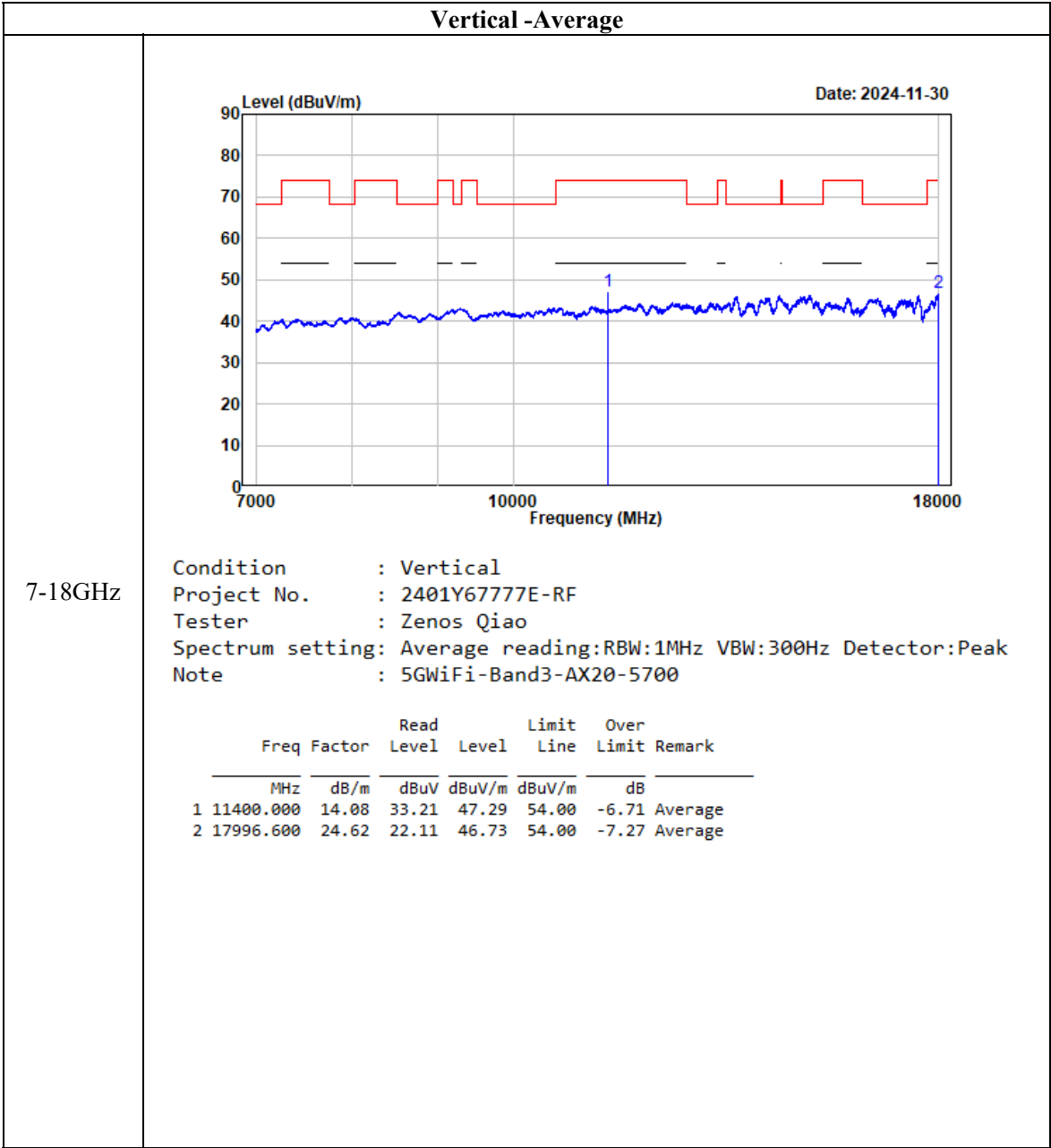
```
Condition      : Vertical
Project No.   : 2401Y67777E-RF
Tester        : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note          : 5GWiFi-Band3-AX20-5700
```

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6858.982	7.91	49.01	56.92	68.20	-11.28	Peak

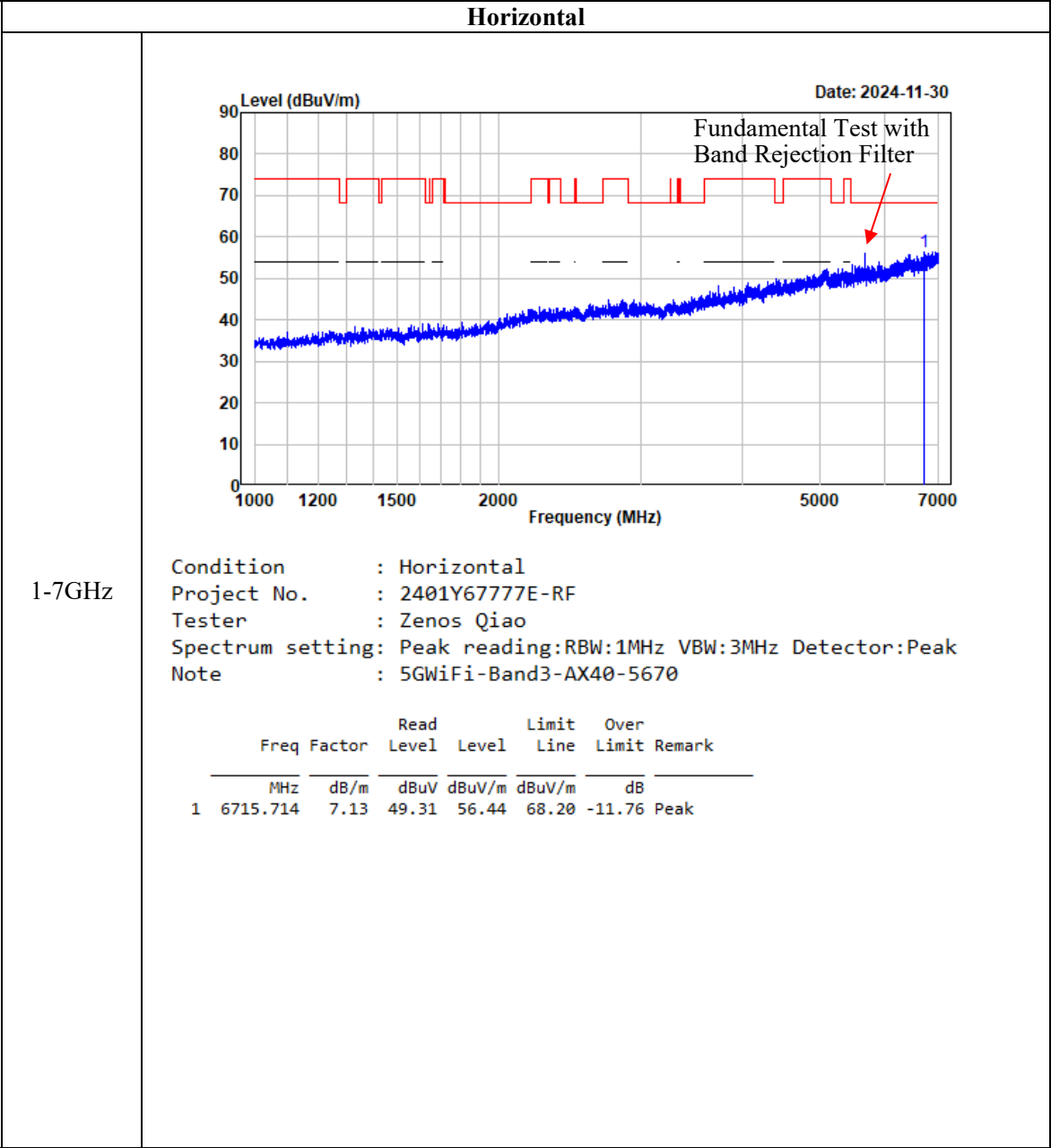


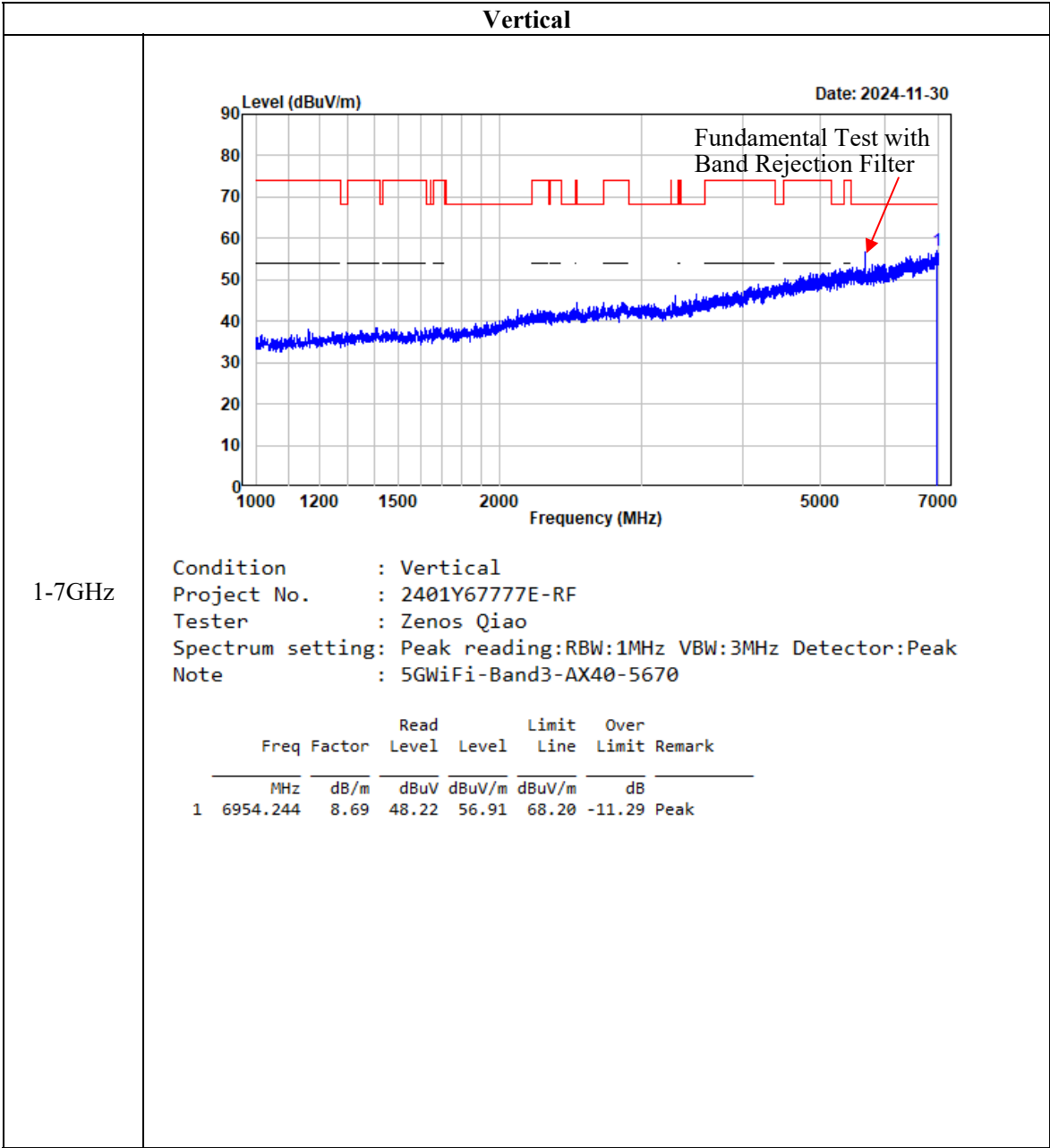


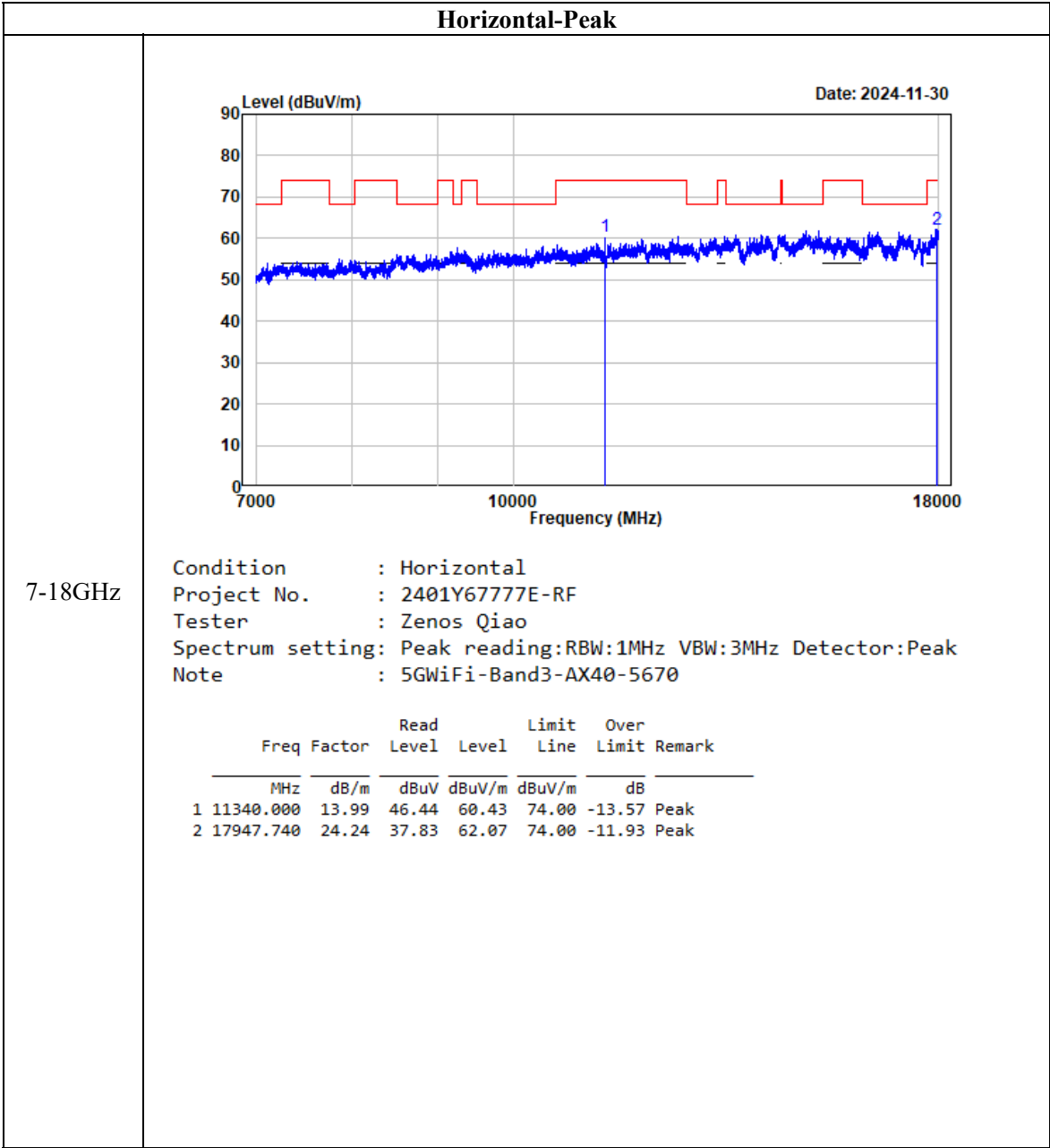


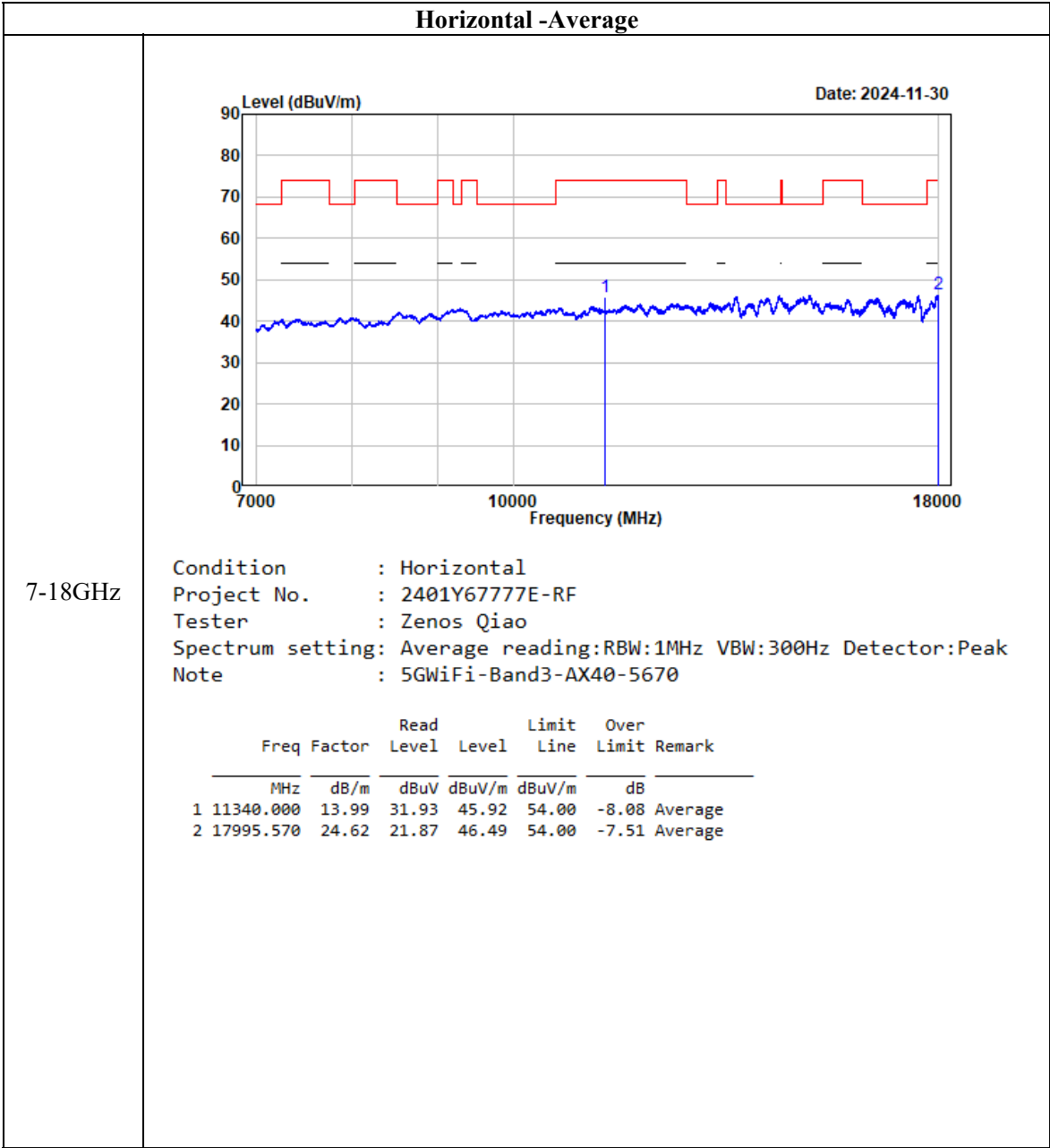


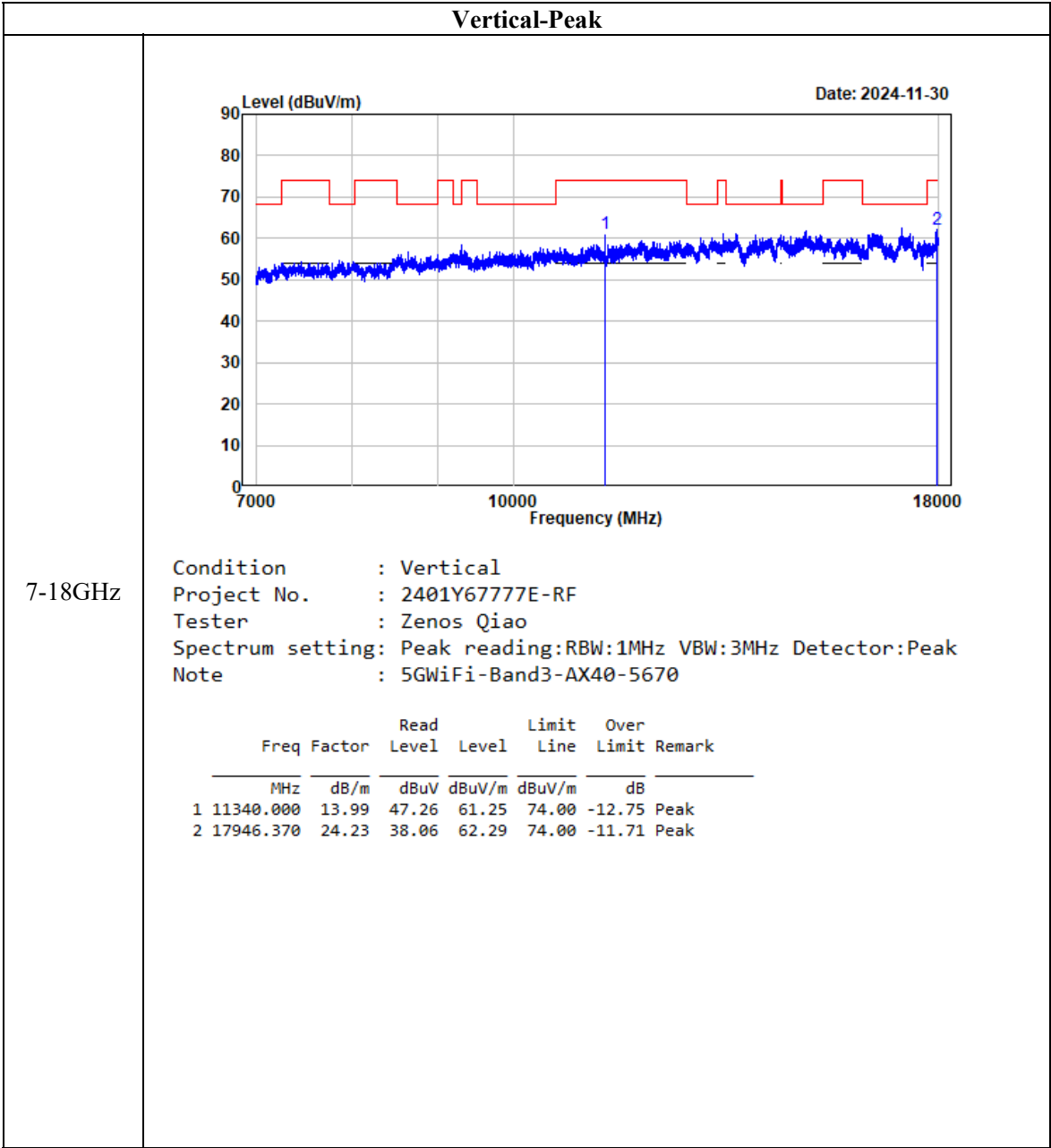
802.11 ax40

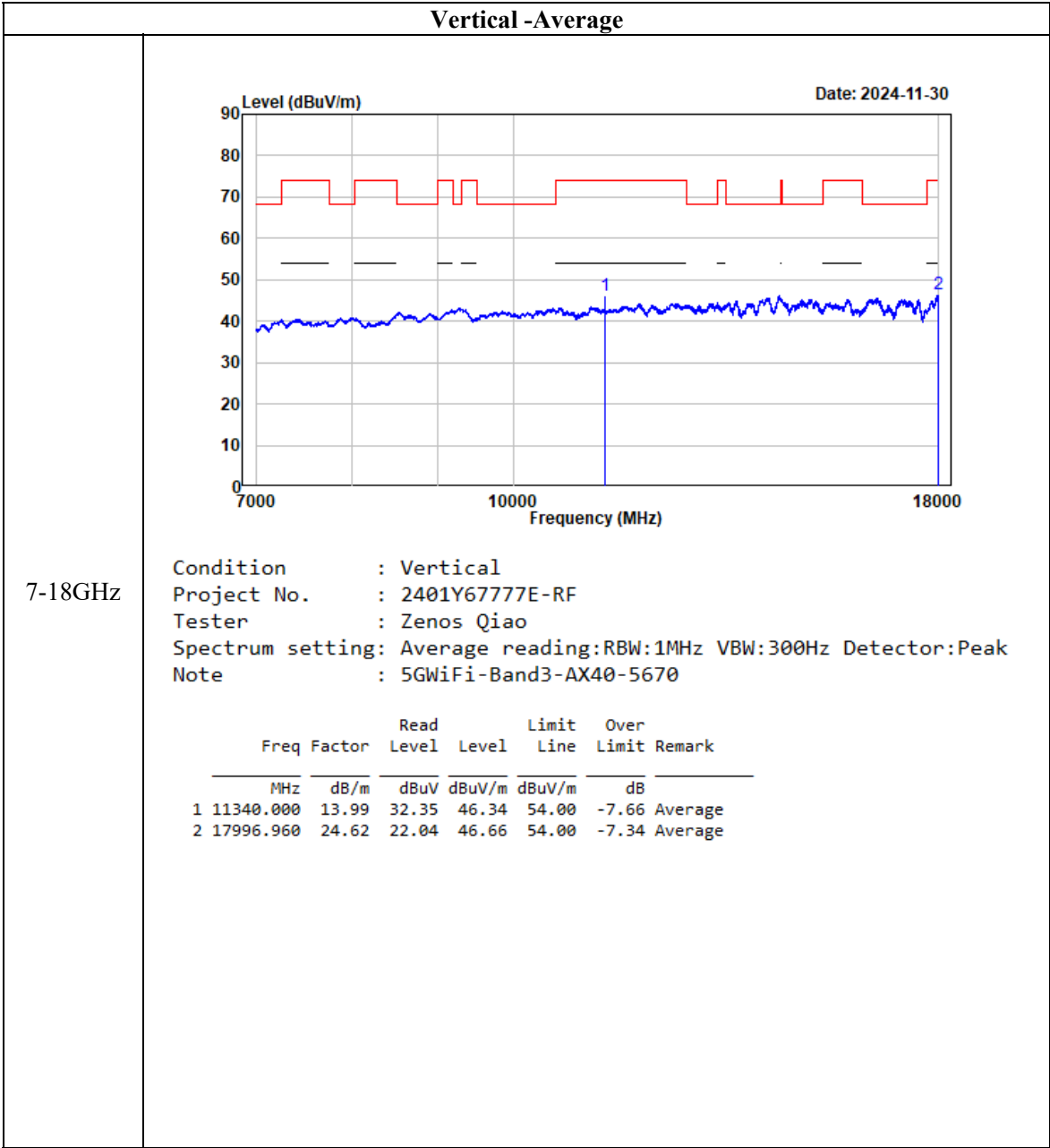




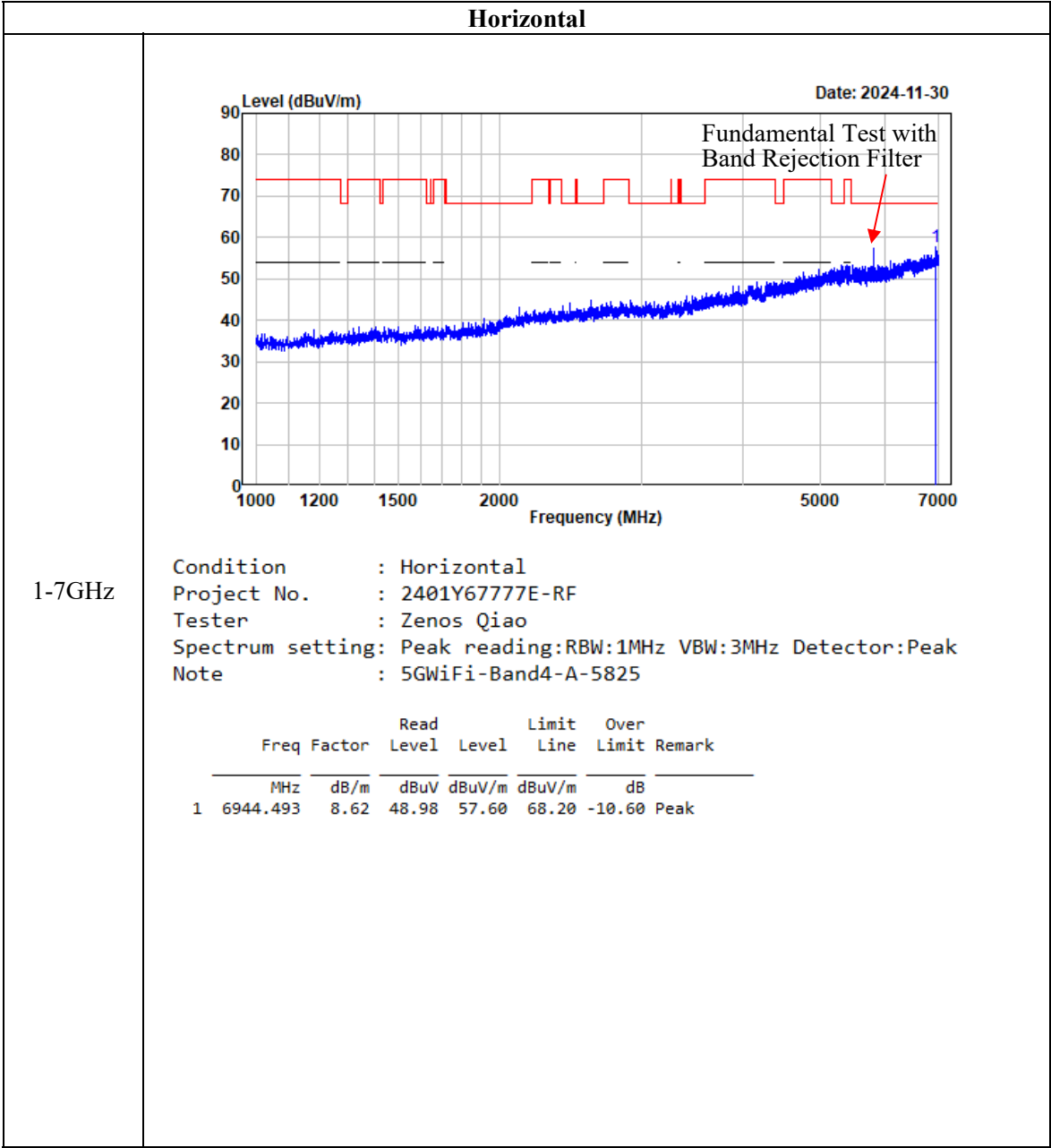




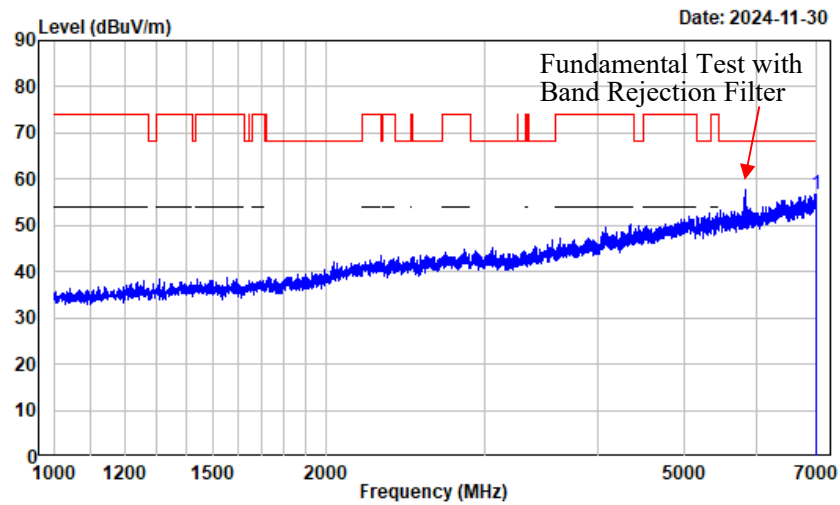




5725-5850 MHz:
802.11a



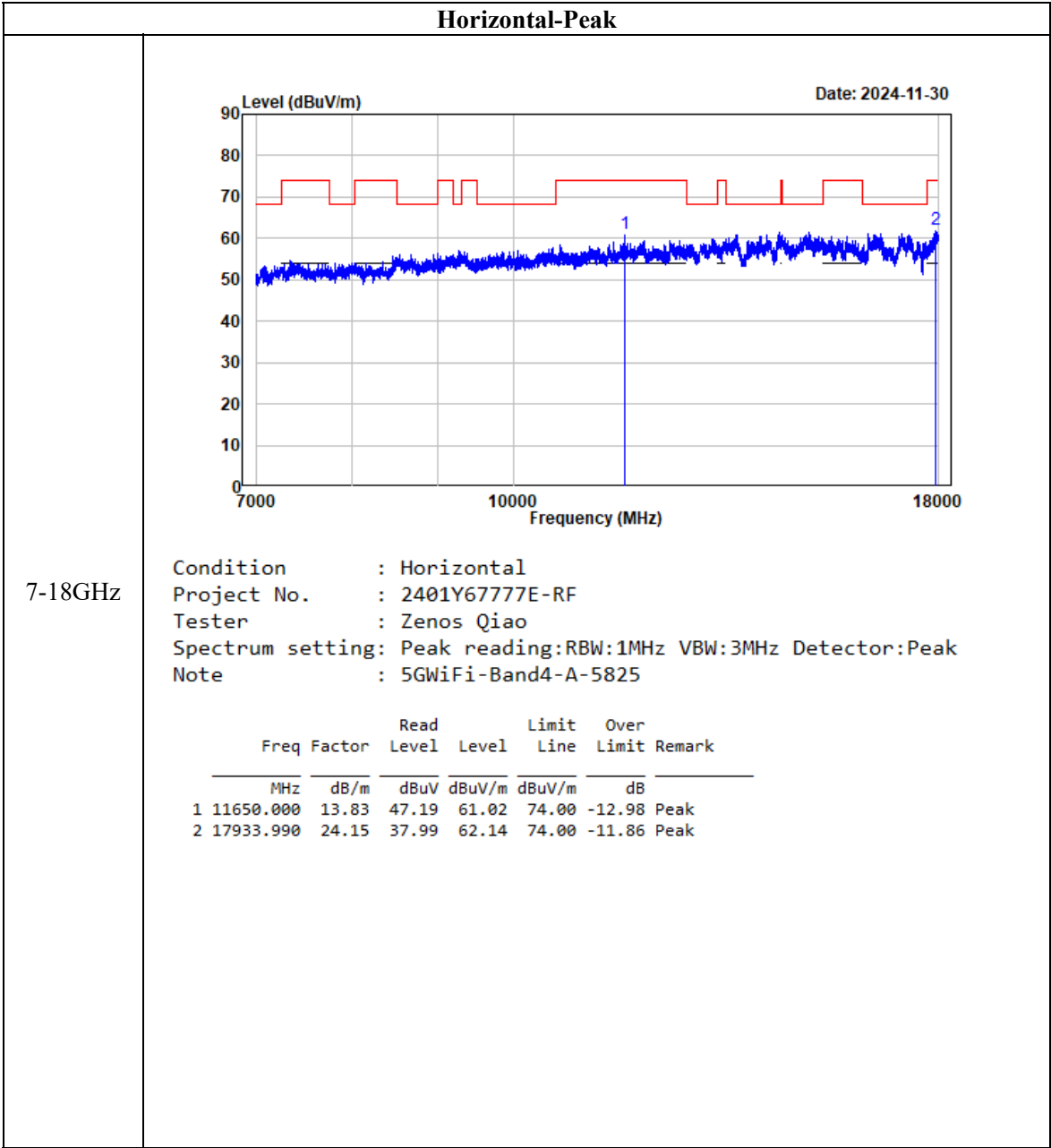
Vertical

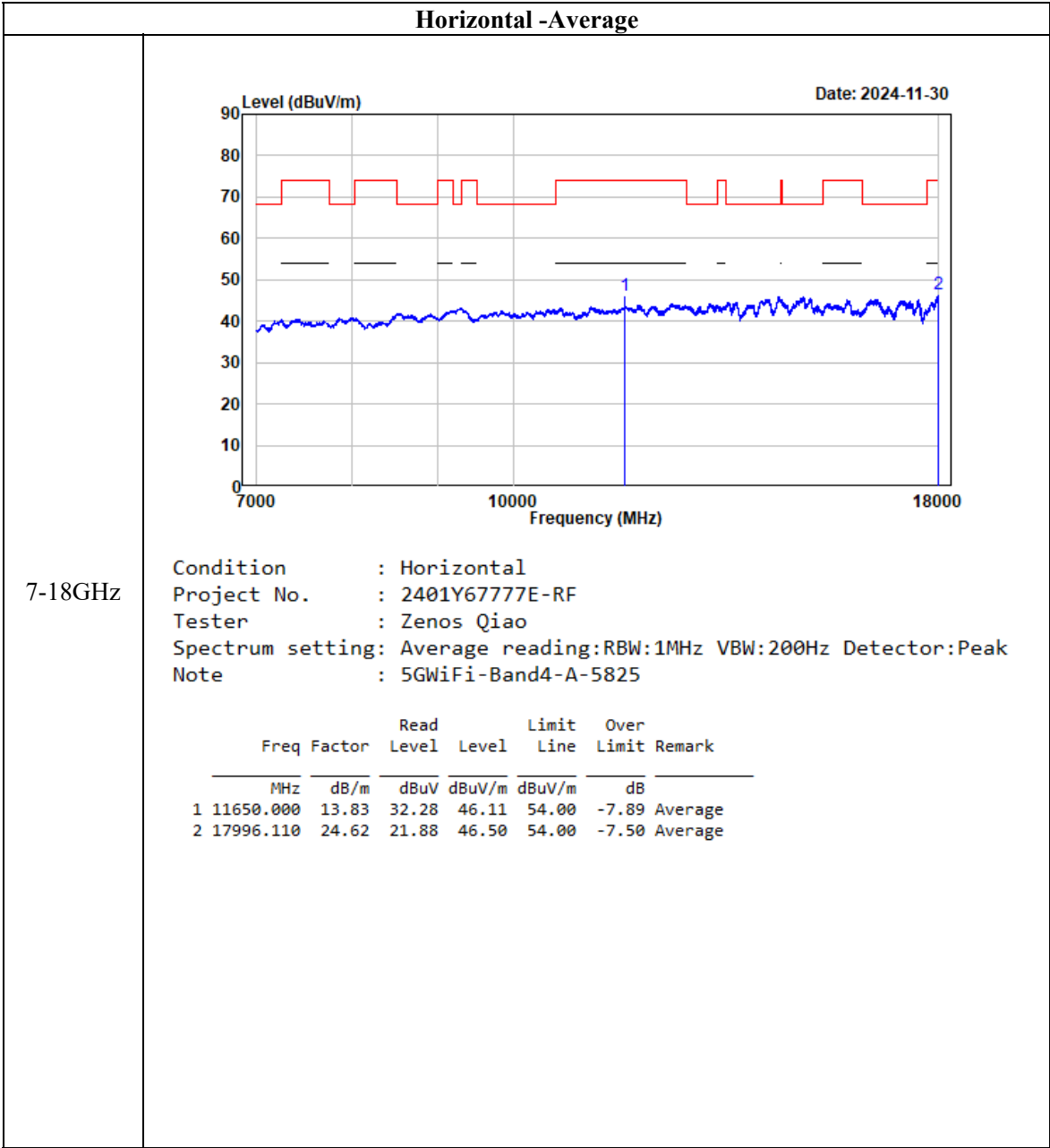


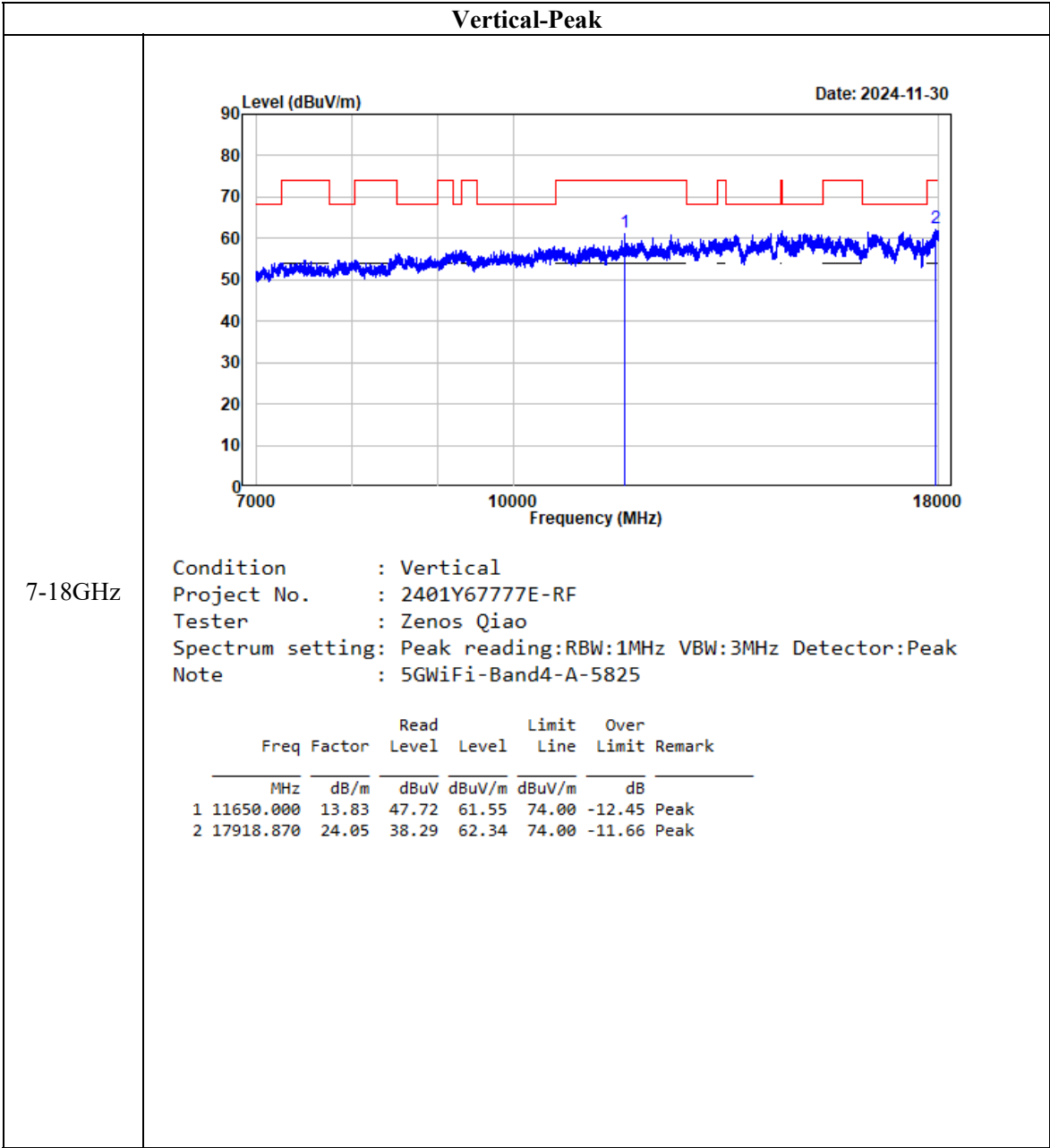
1-7GHz

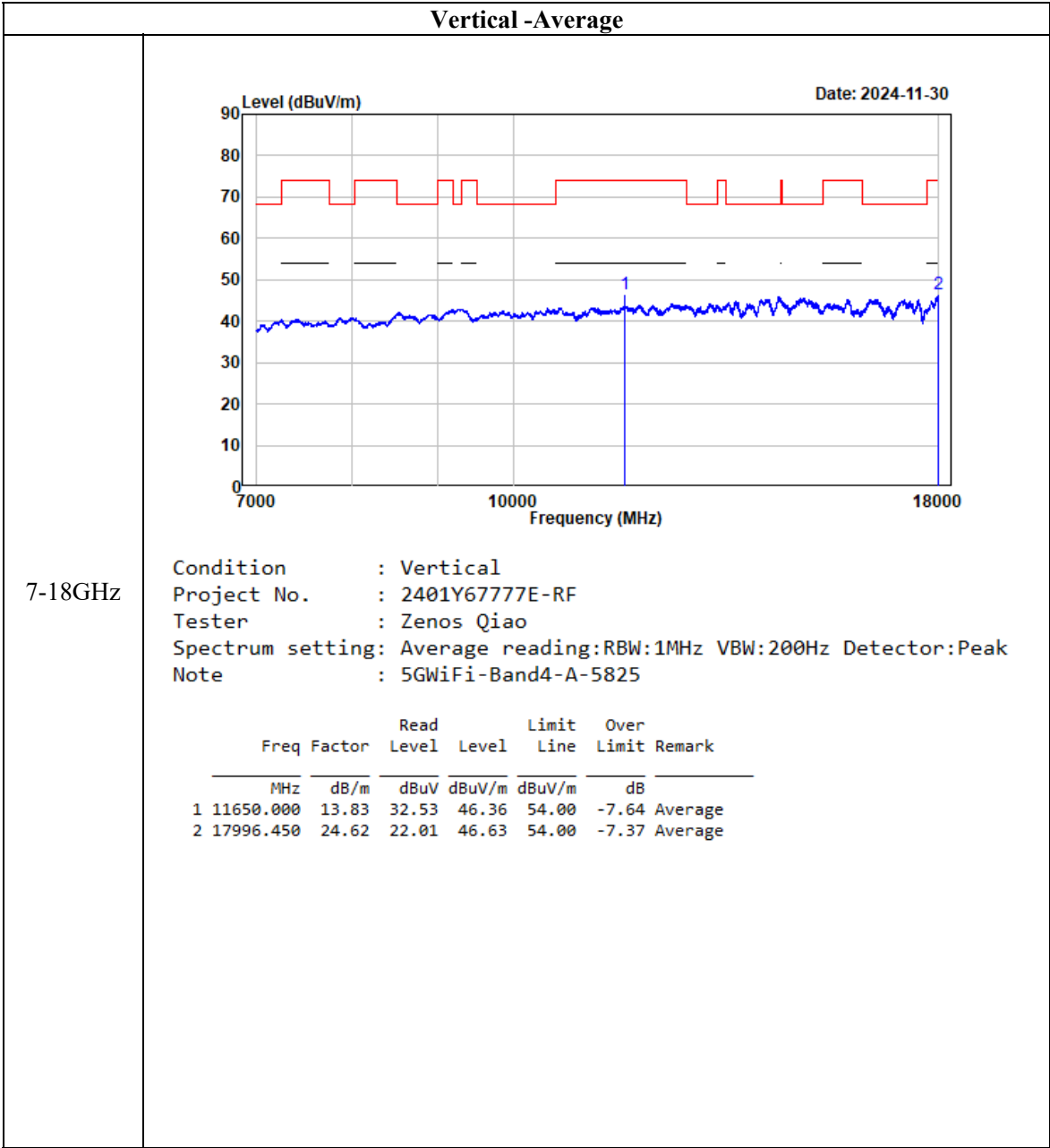
```
Condition      : Vertical
Project No.    : 2401Y67777E-RF
Tester         : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note           : 5GWiFi-Band4-A-5825
```

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6991.749	8.62	48.24	56.86	68.20	-11.34	Peak

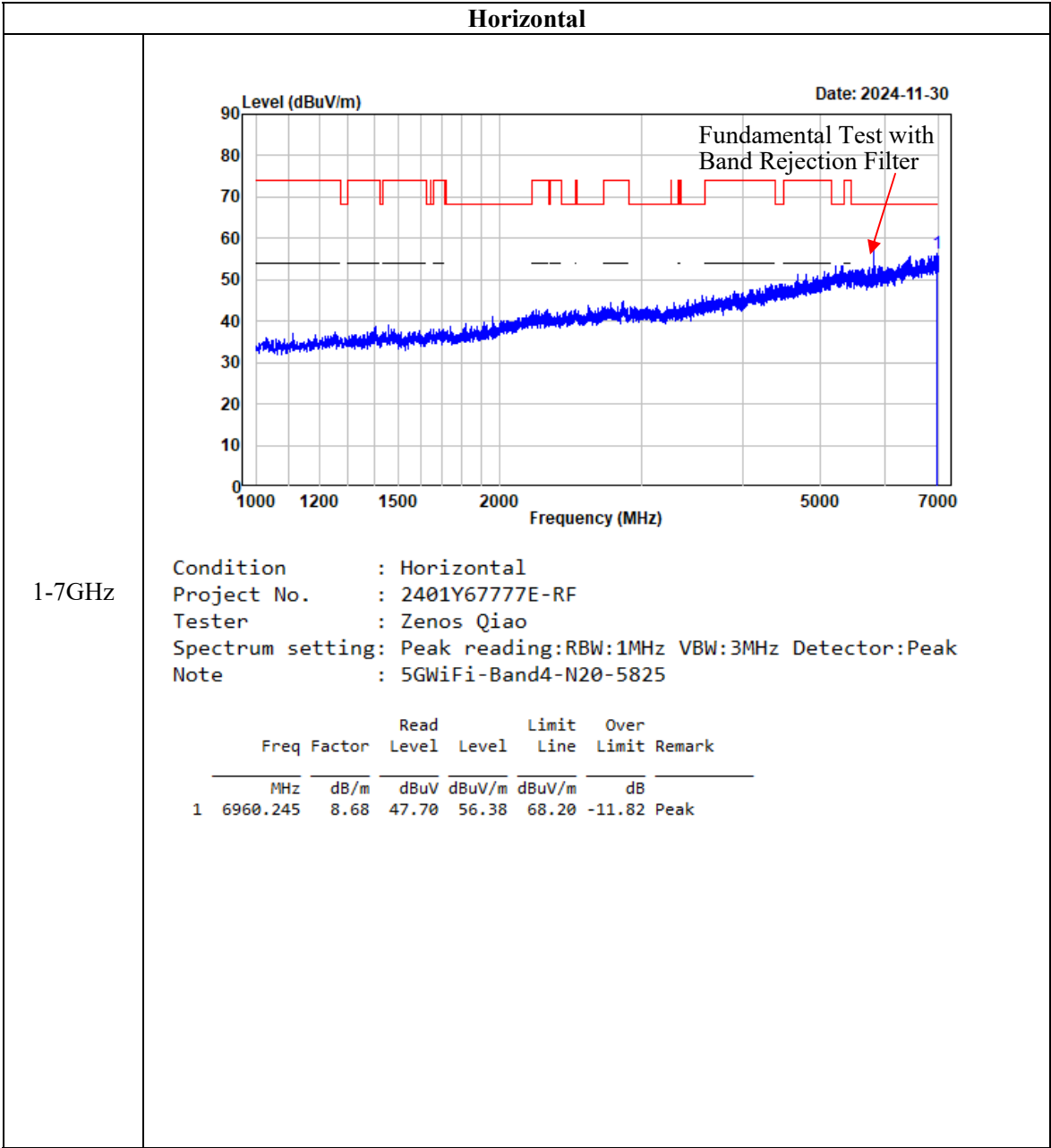




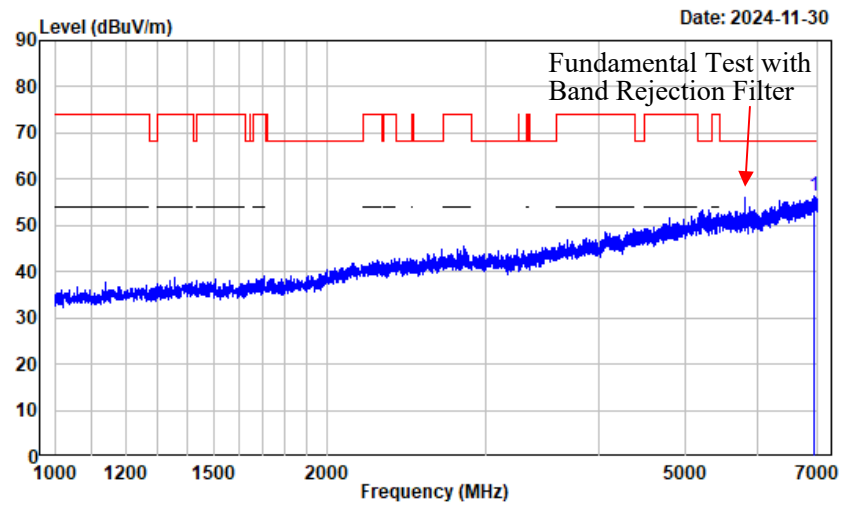




802.11 n20



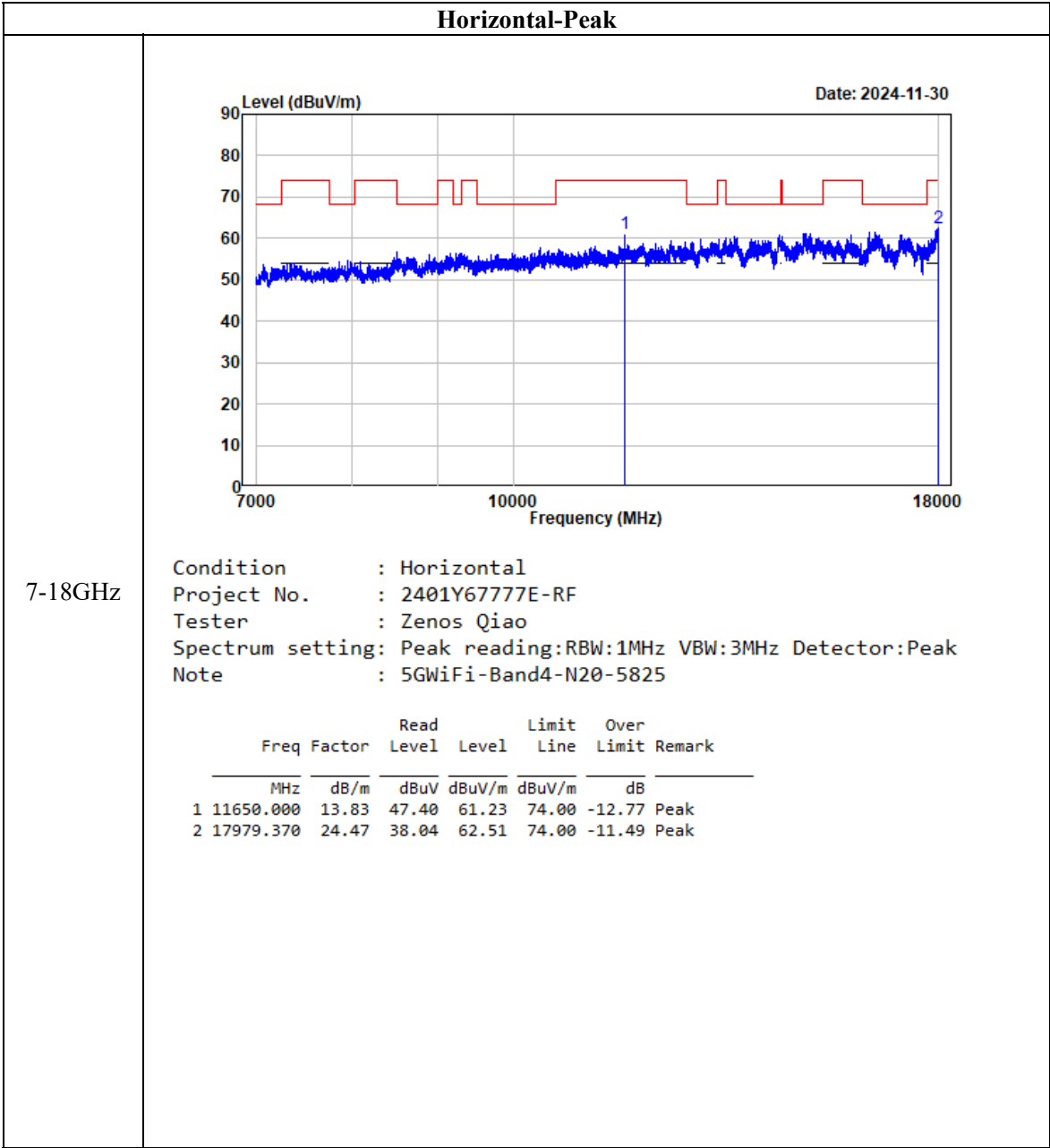
Vertical

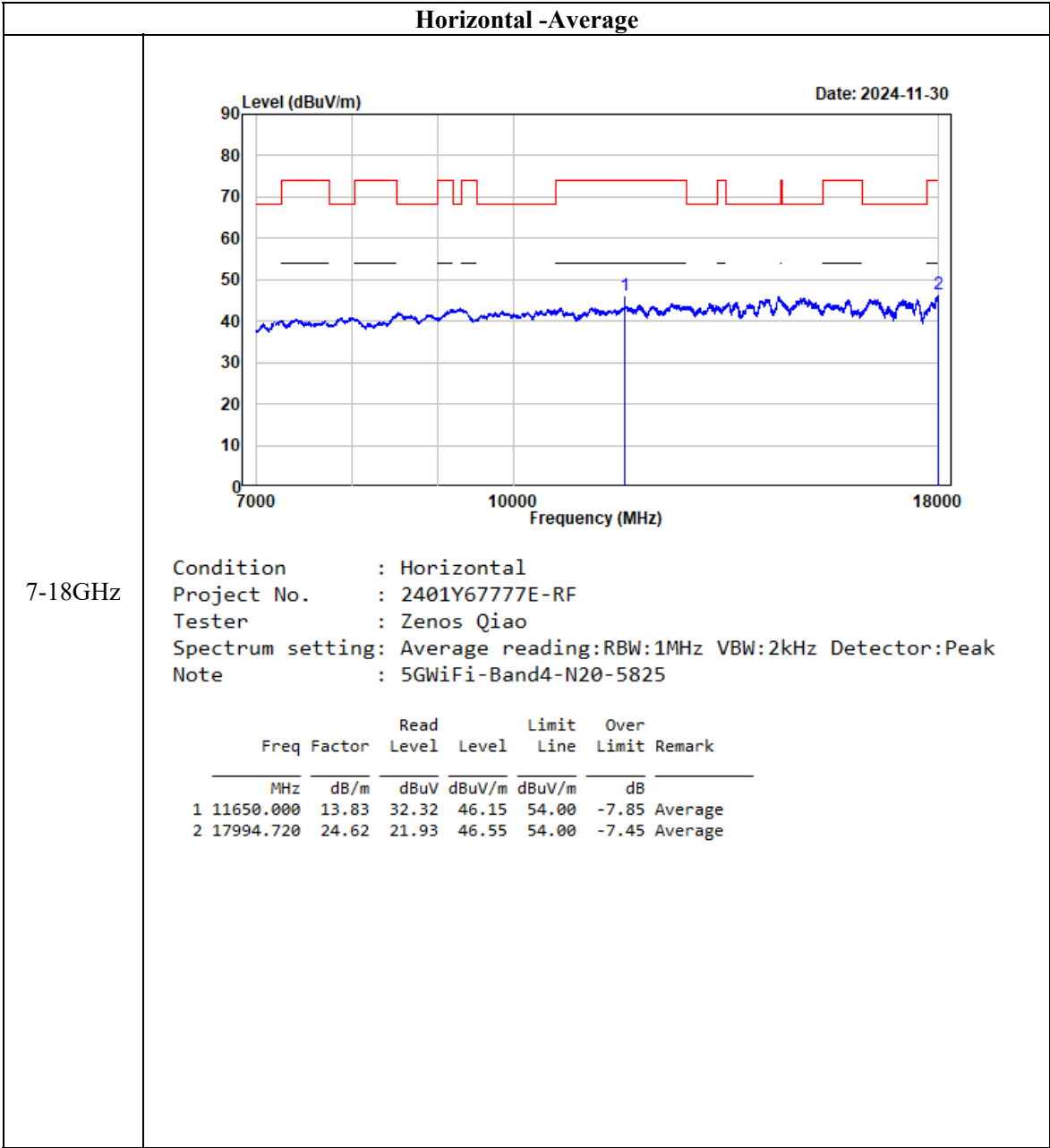


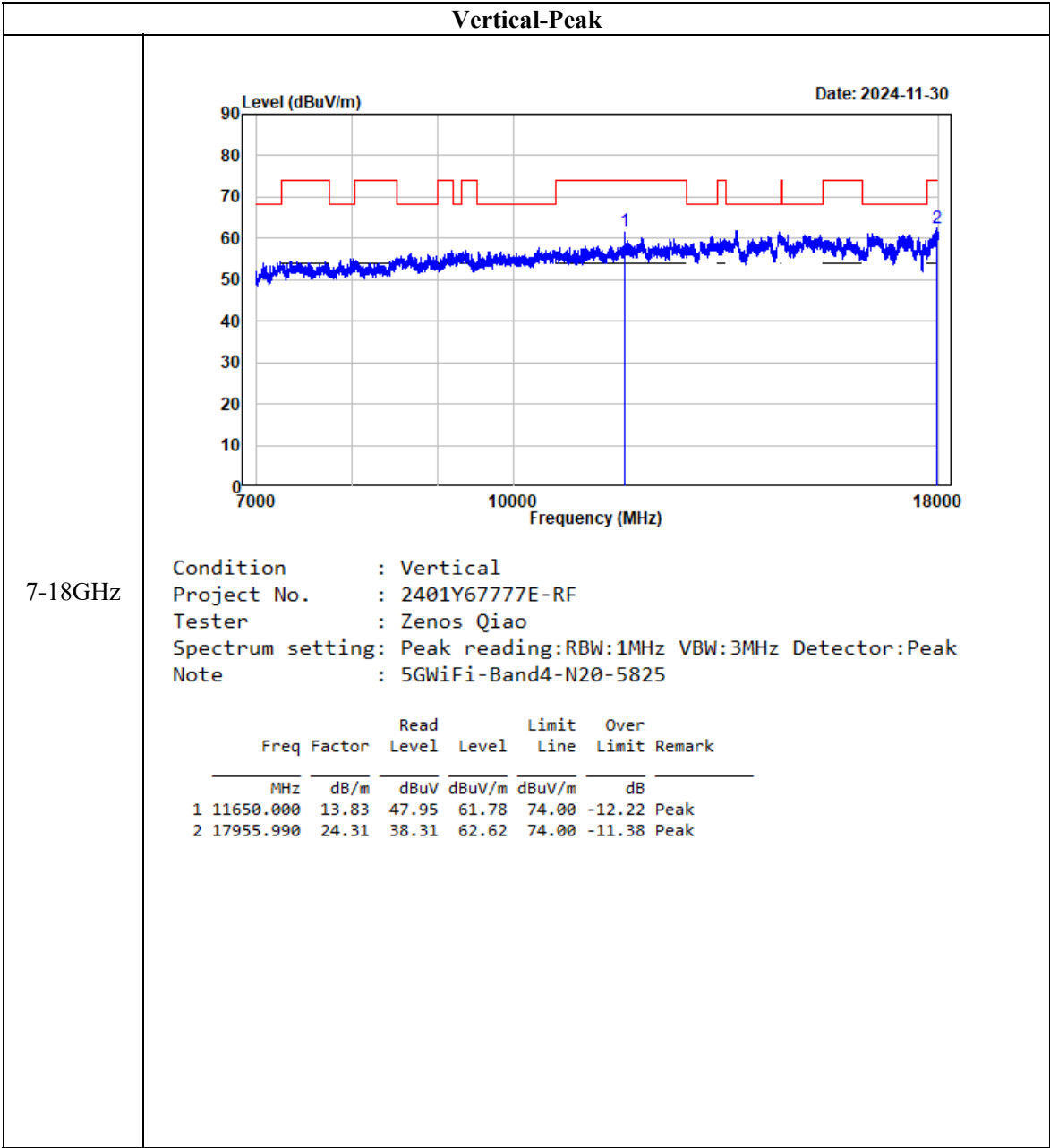
1-7GHz

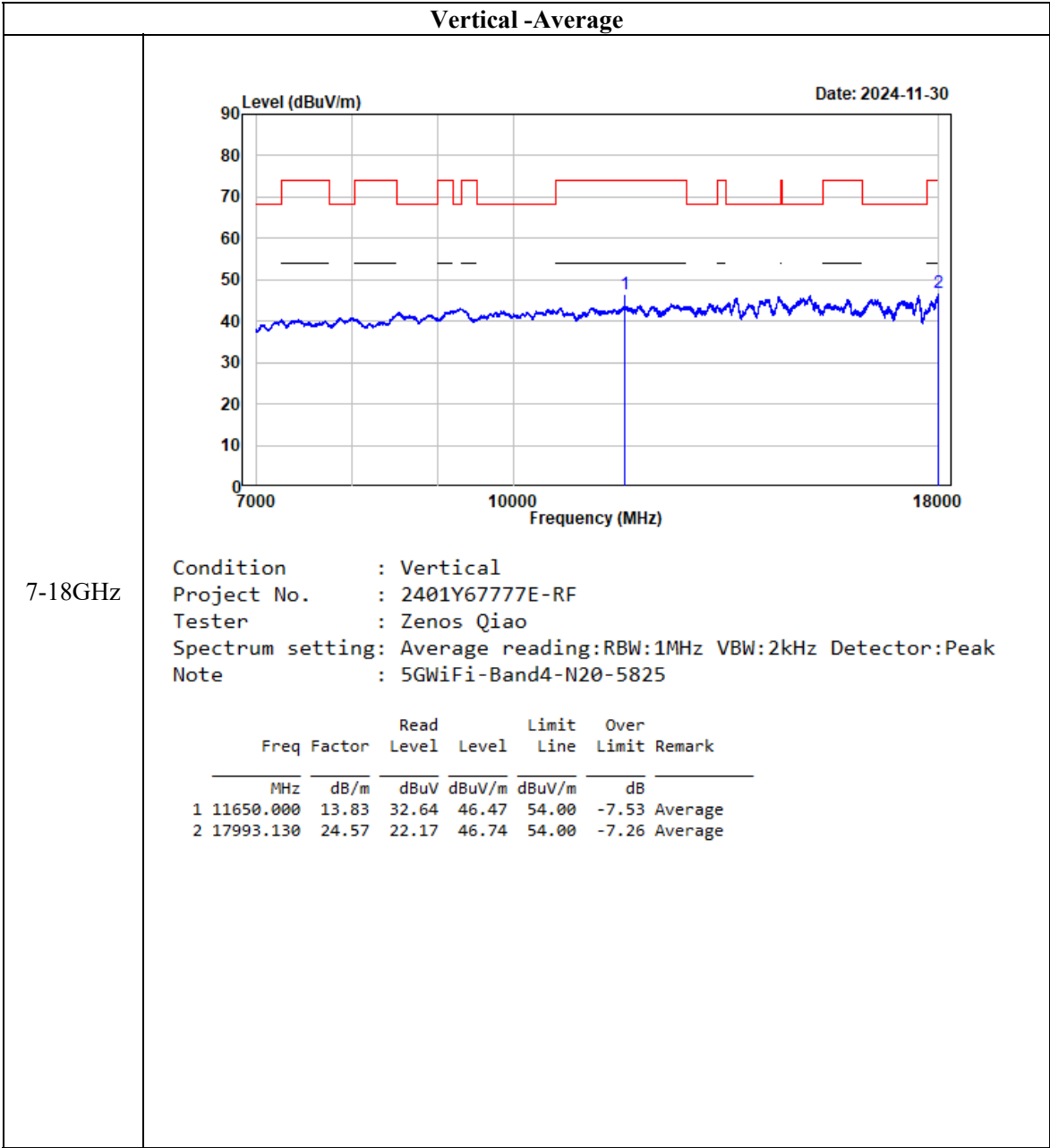
```
Condition      : Vertical
Project No.    : 2401Y67777E-RF
Tester         : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note           : 5GWiFi-Band4-N20-5825
```

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6948.994	8.69	47.61	56.30	68.20	-11.90	Peak

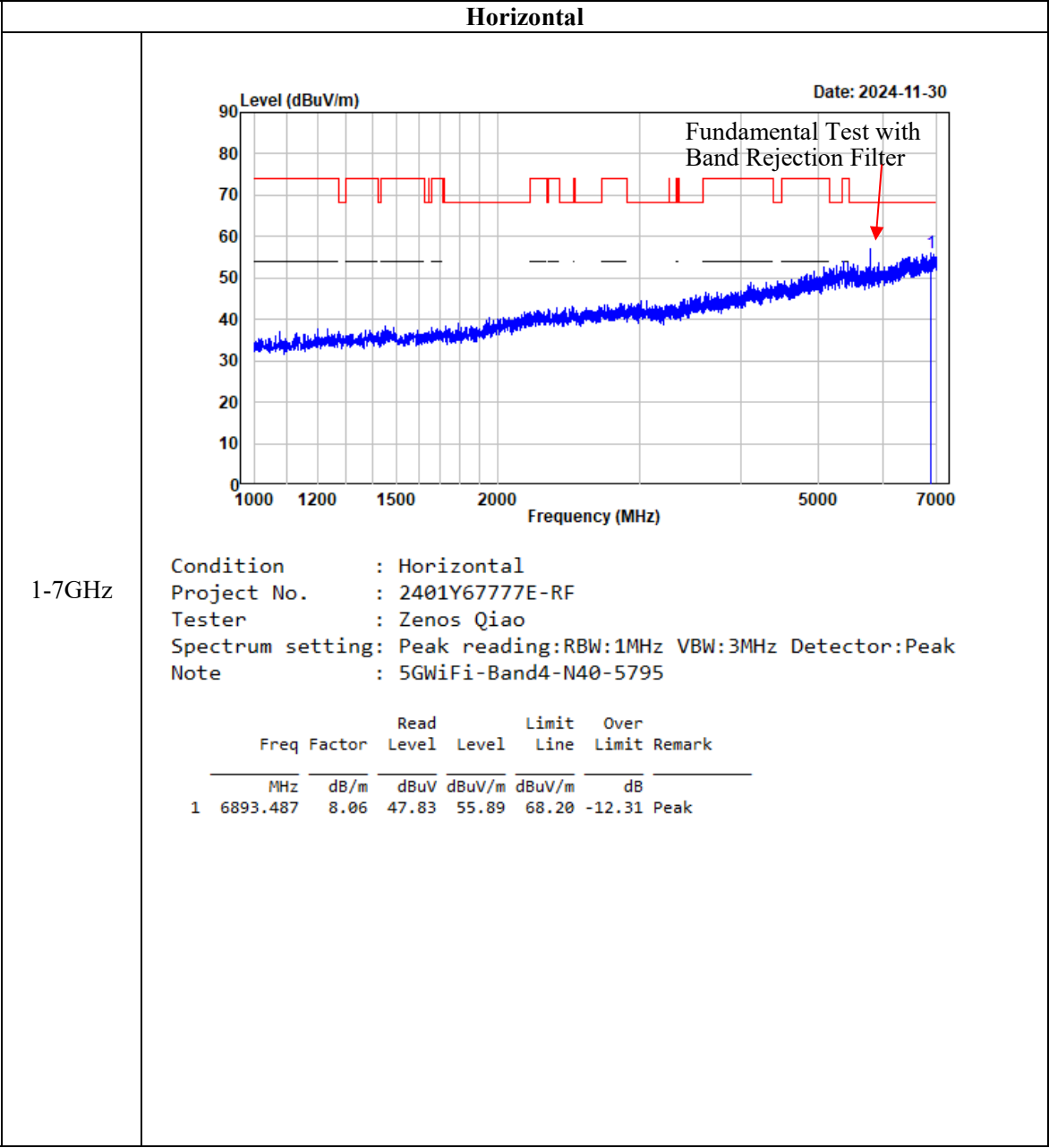




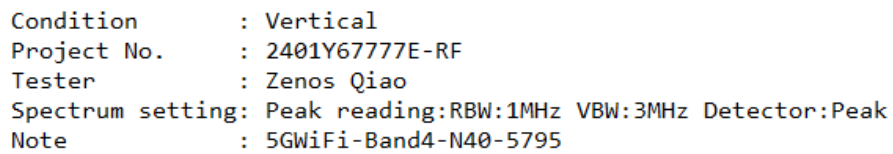




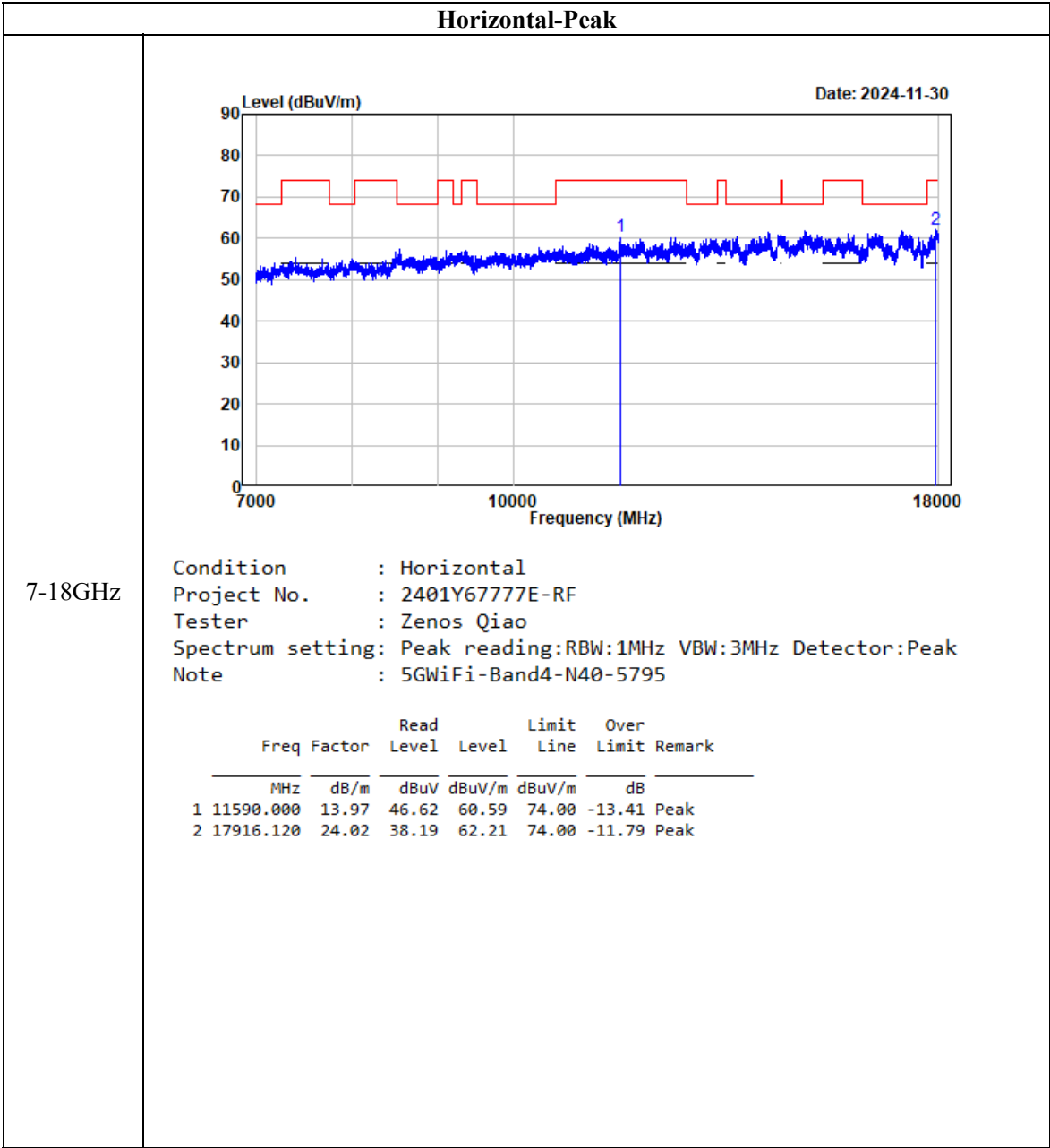
802.11 ax40

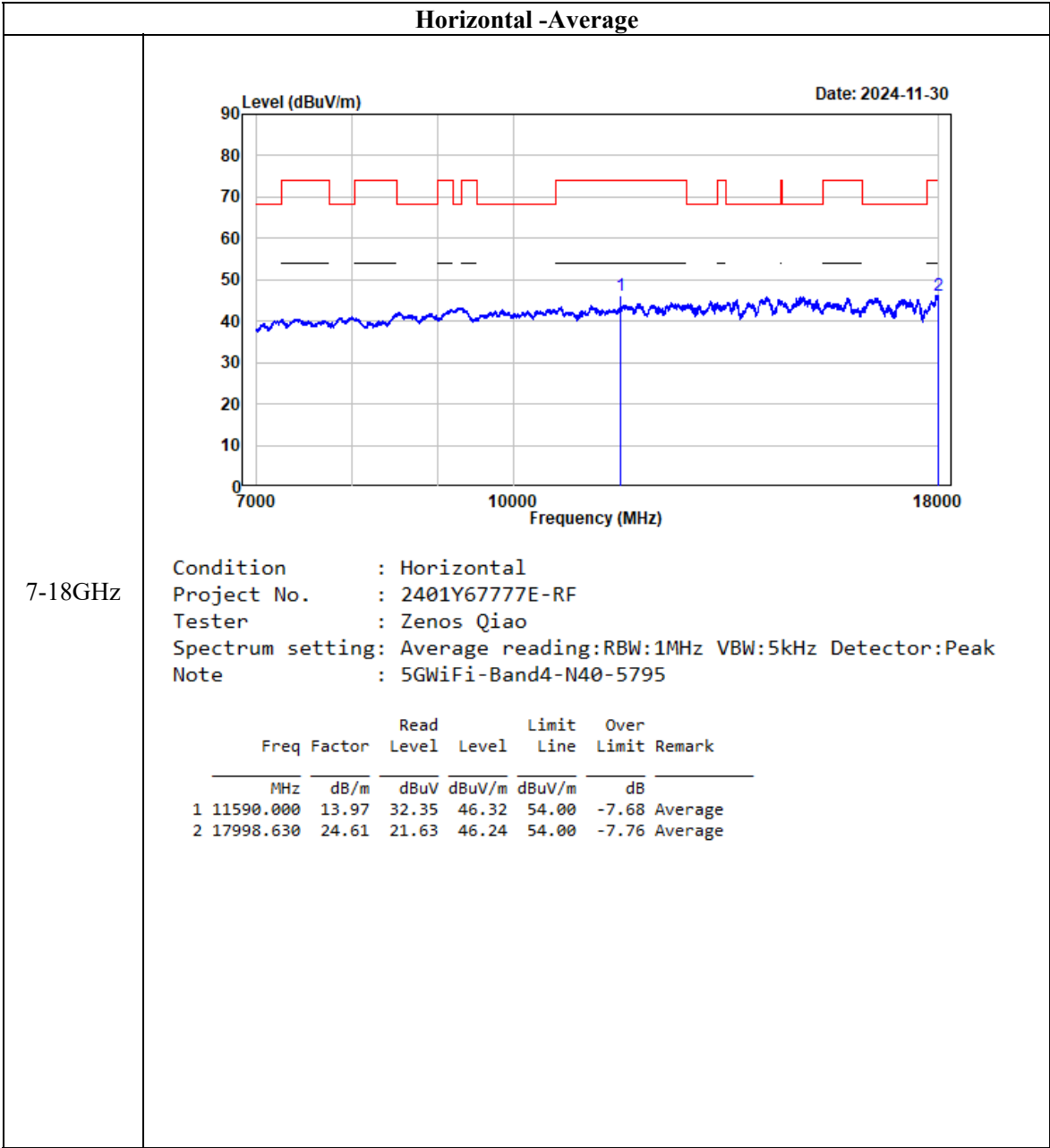


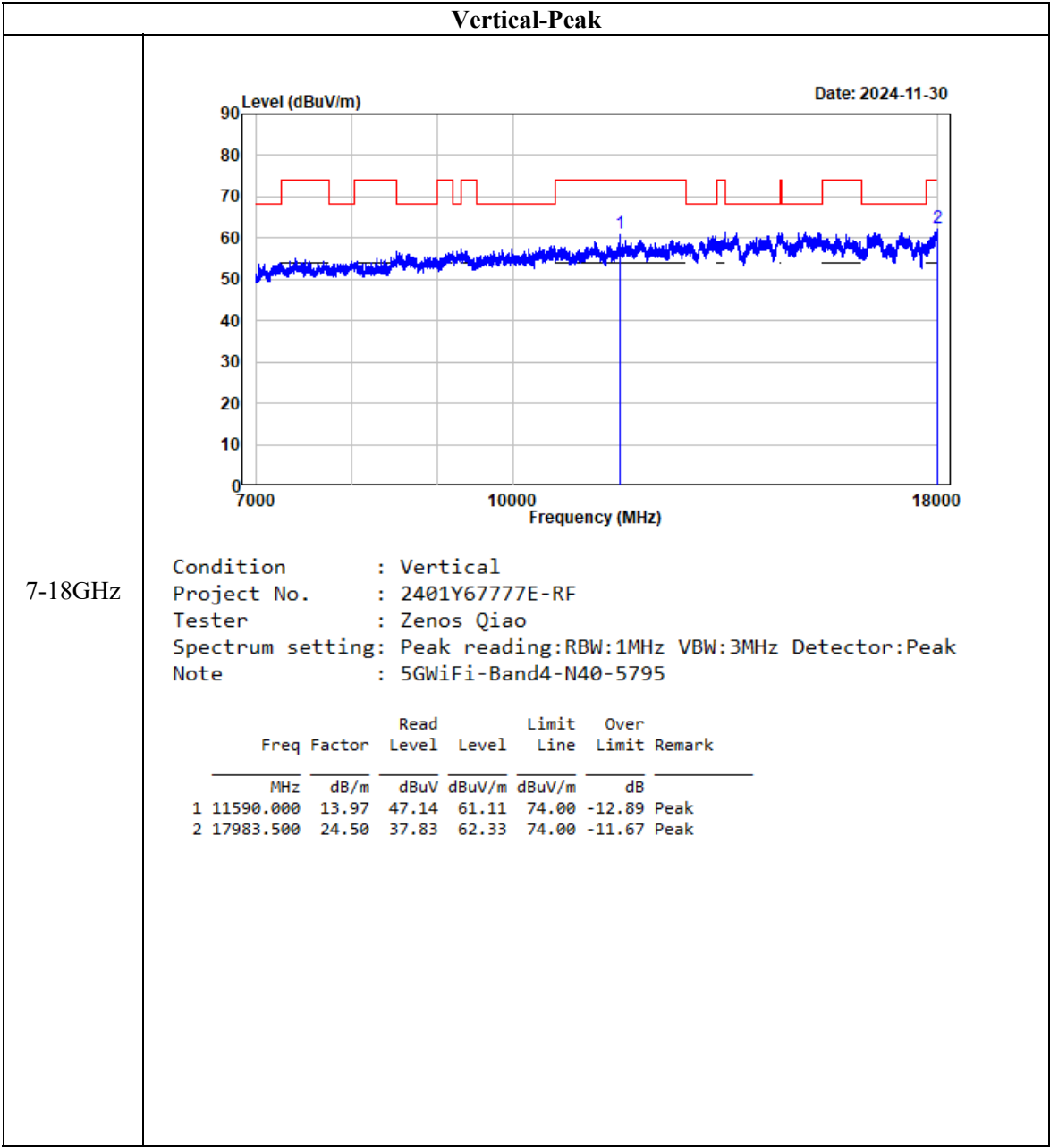
1-7GHz

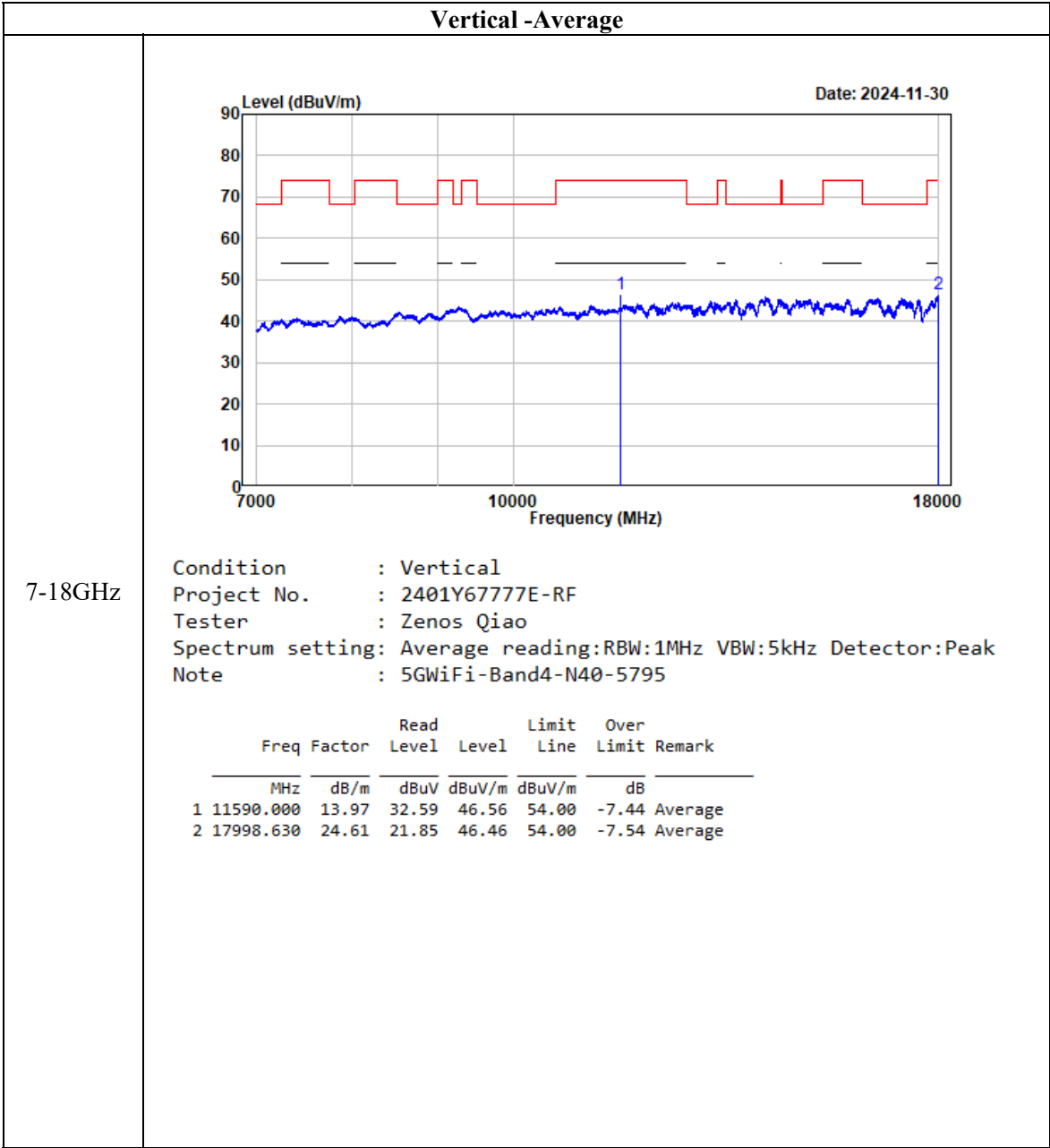


	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	6943.743	8.62	47.42	56.04	68.20	-12.16	Peak

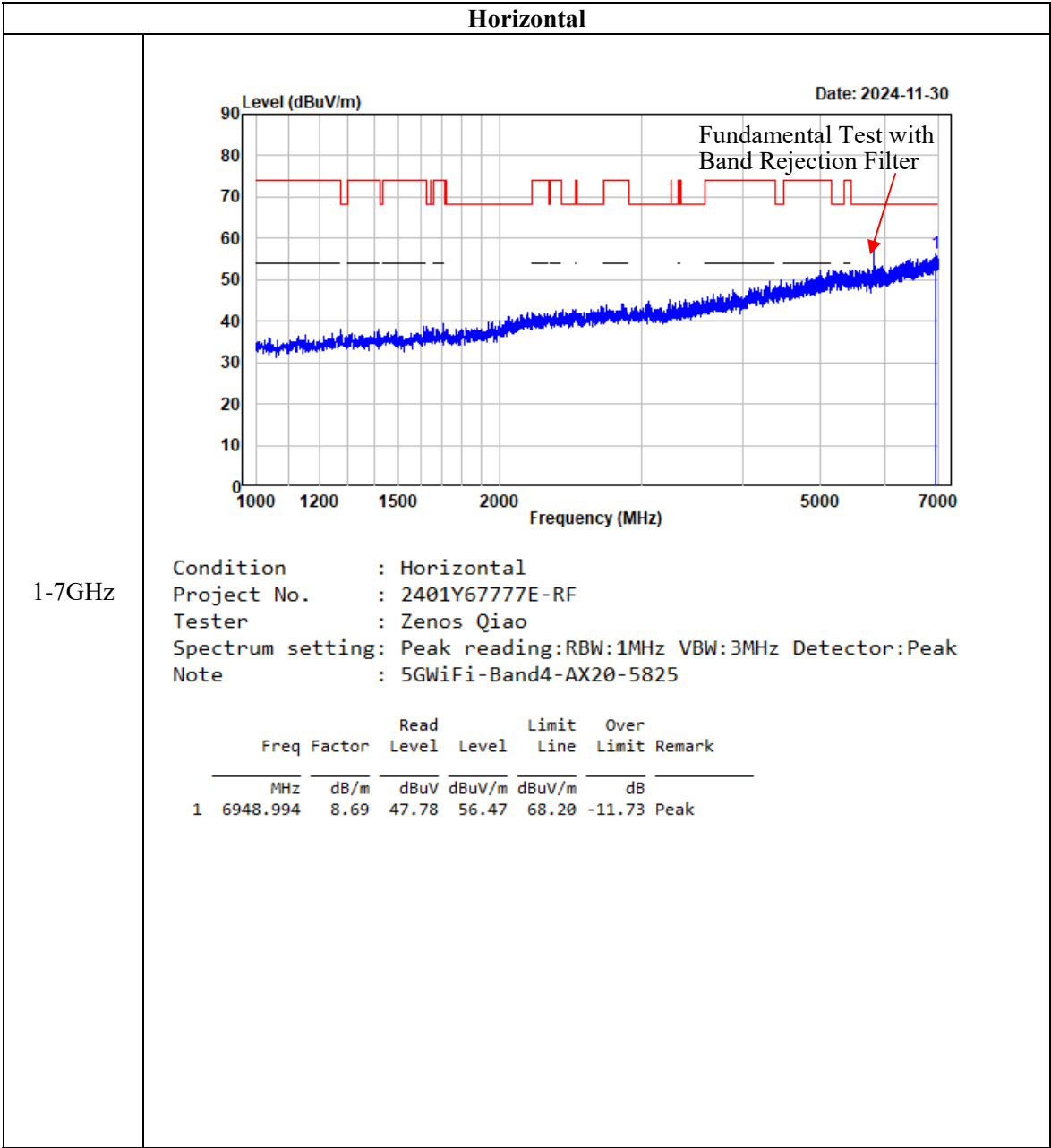


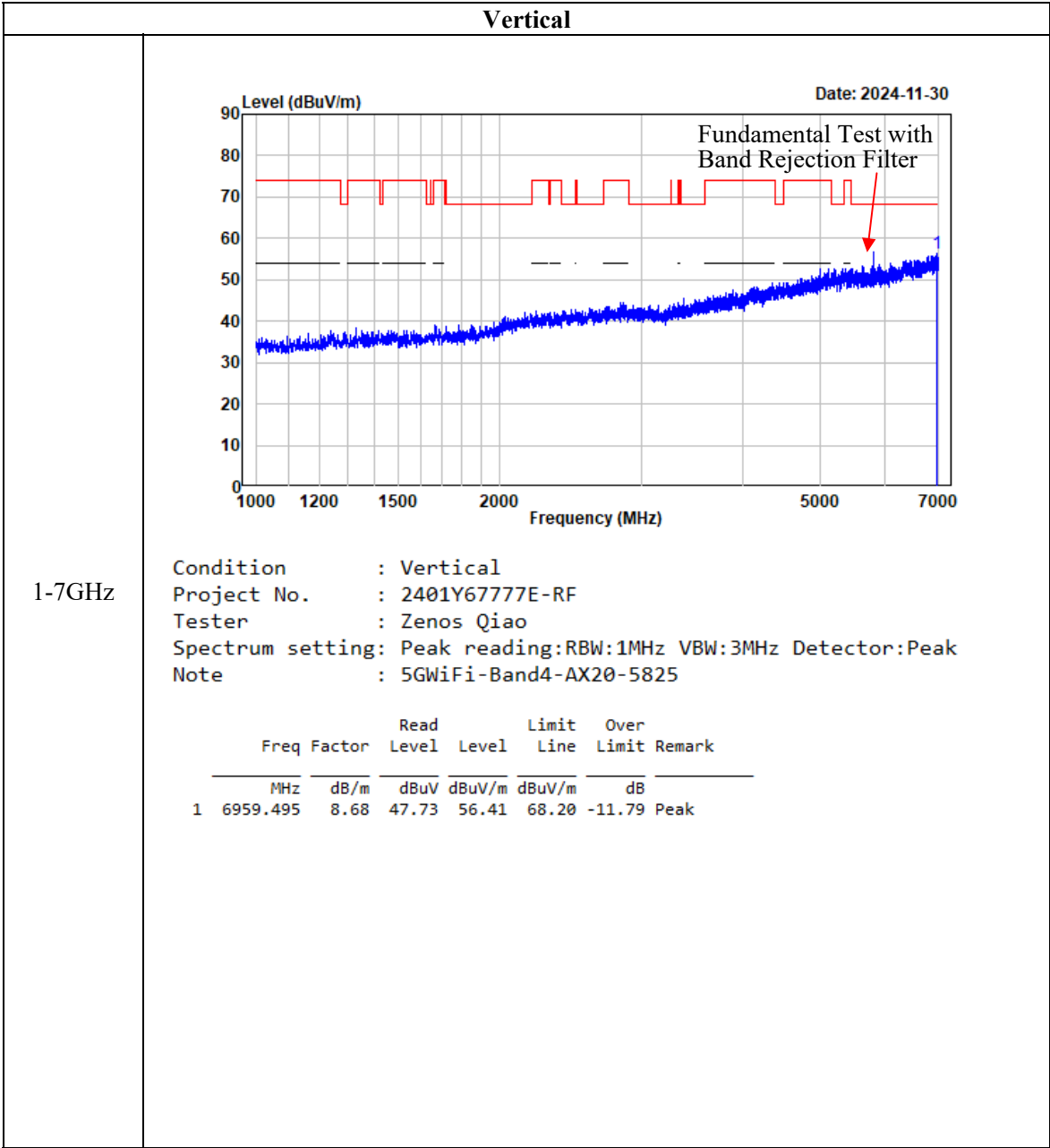




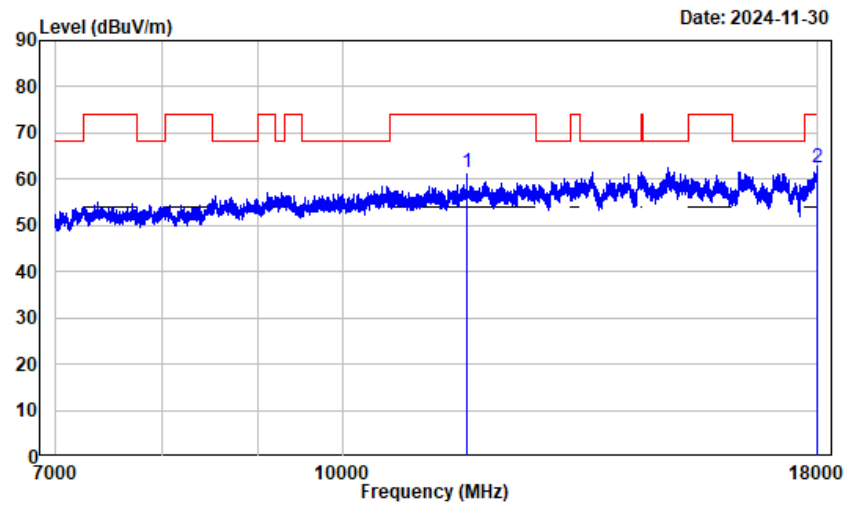


802.11 ax20





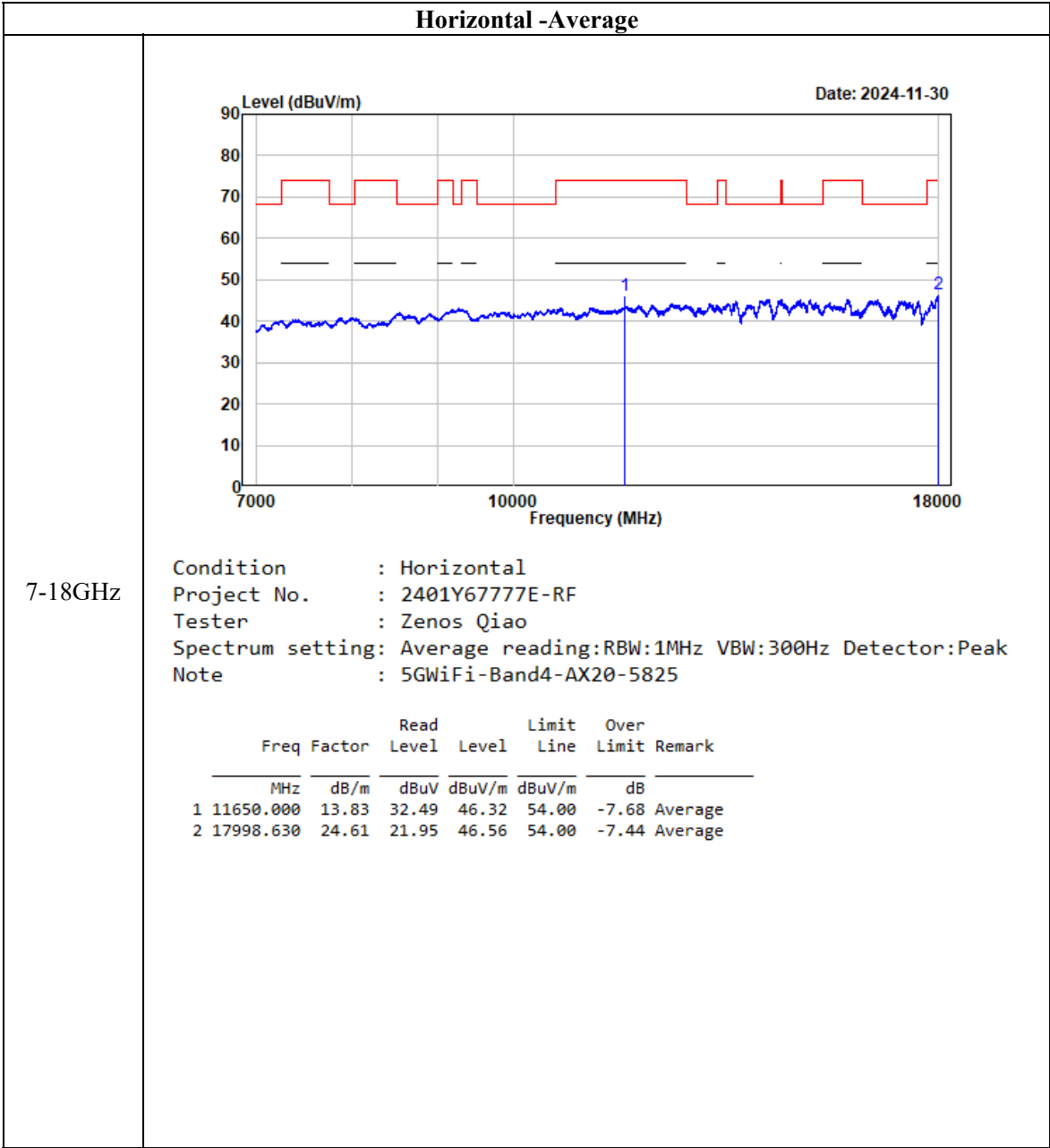
Horizontal-Peak

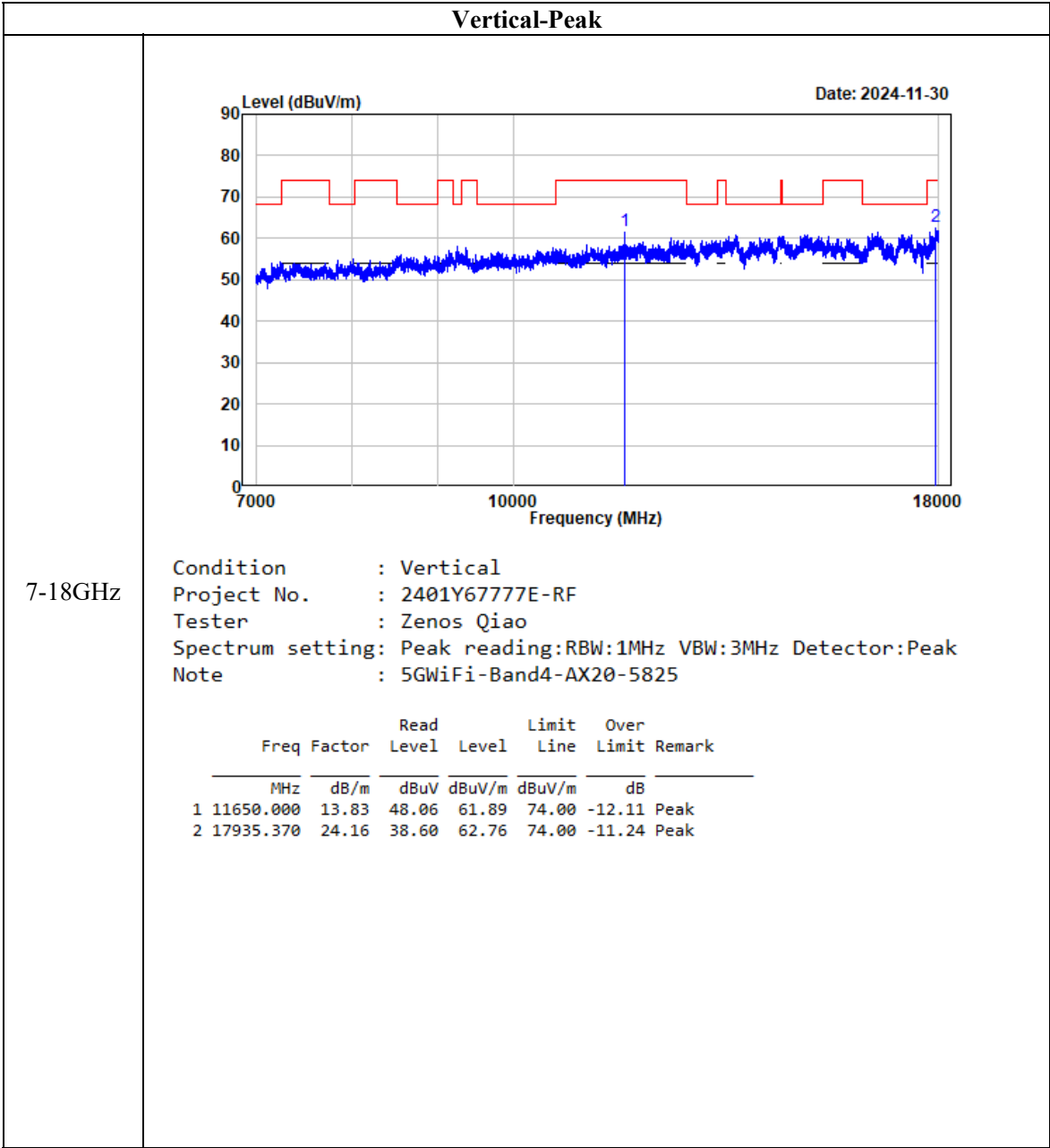


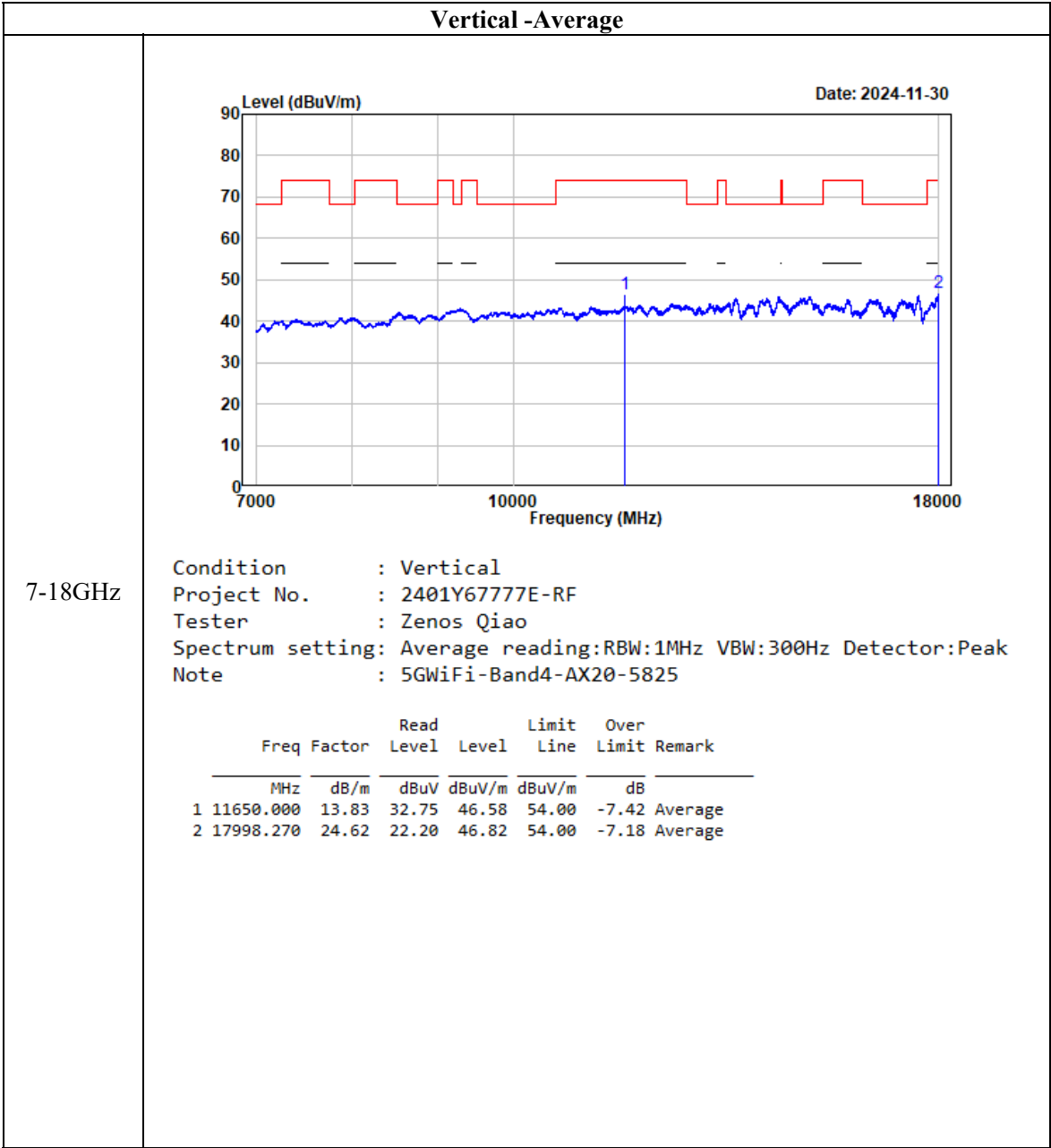
7-18GHz

Condition : Horizontal
Project No. : 2401Y67777E-RF
Tester : Zenos Qiao
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : 5GWiFi-Band4-AX20-5825

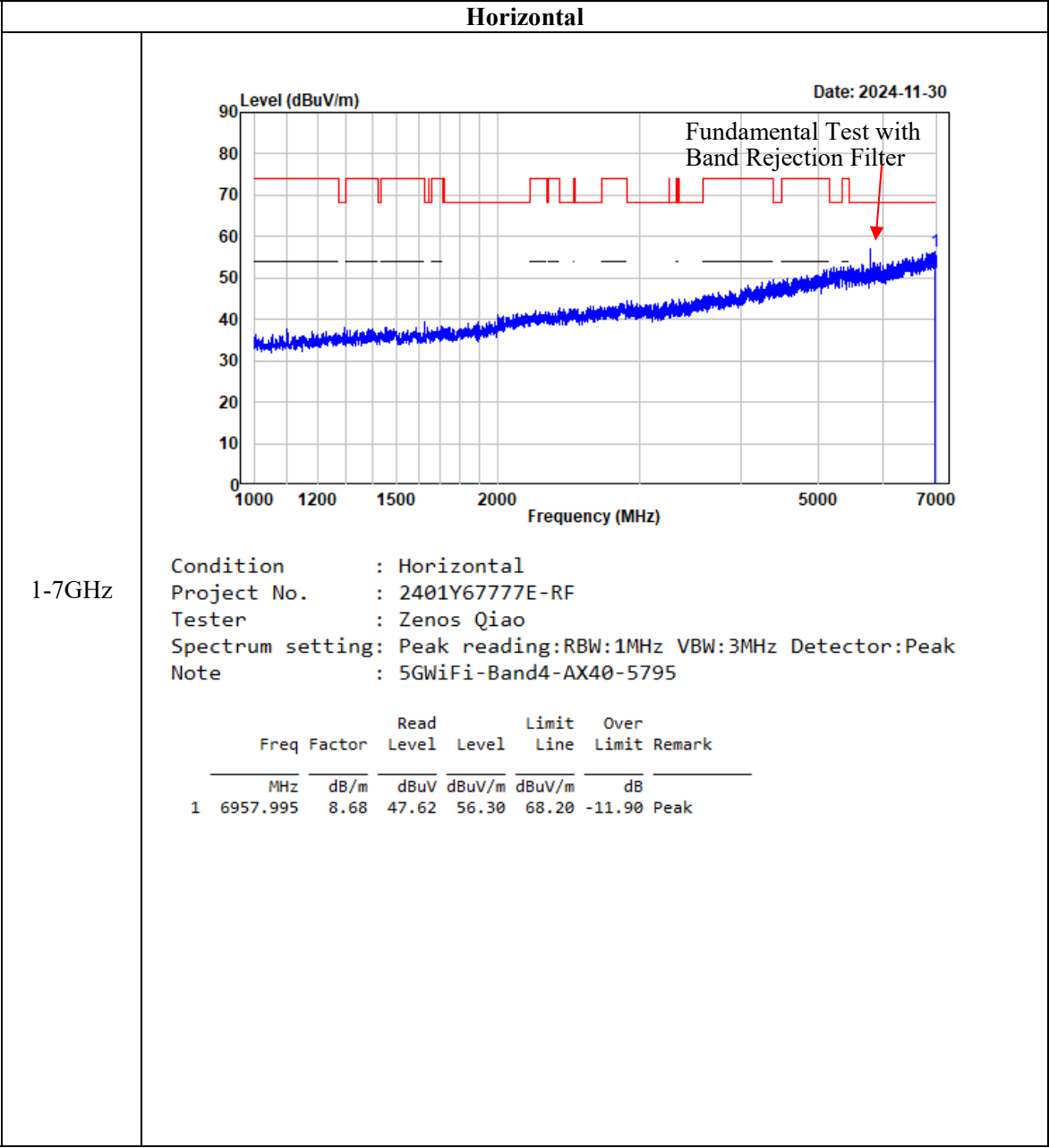
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	11650.000	13.83	47.58	61.41	74.00	-12.59	Peak
2	17980.750	24.48	38.05	62.53	74.00	-11.47	Peak

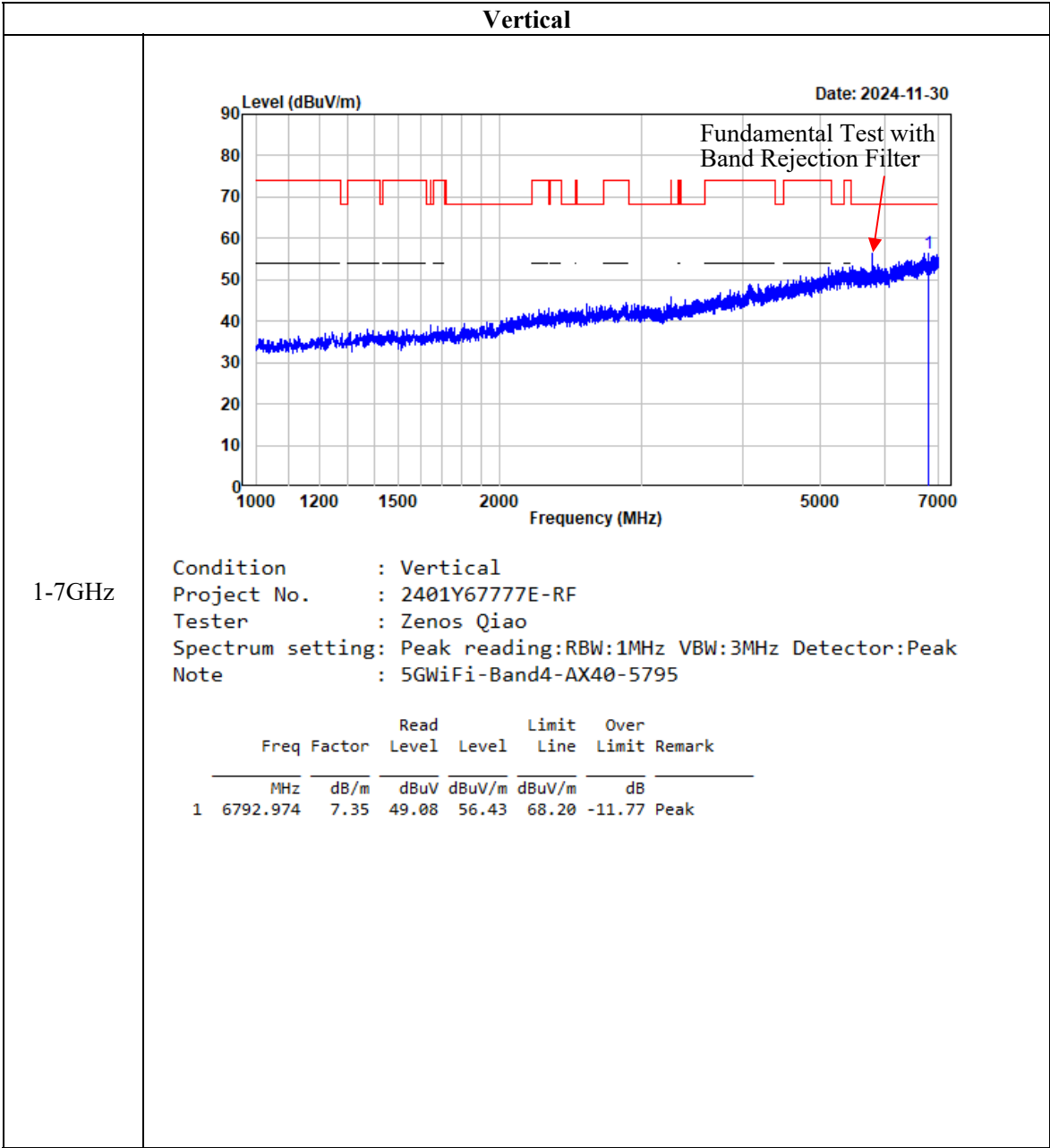


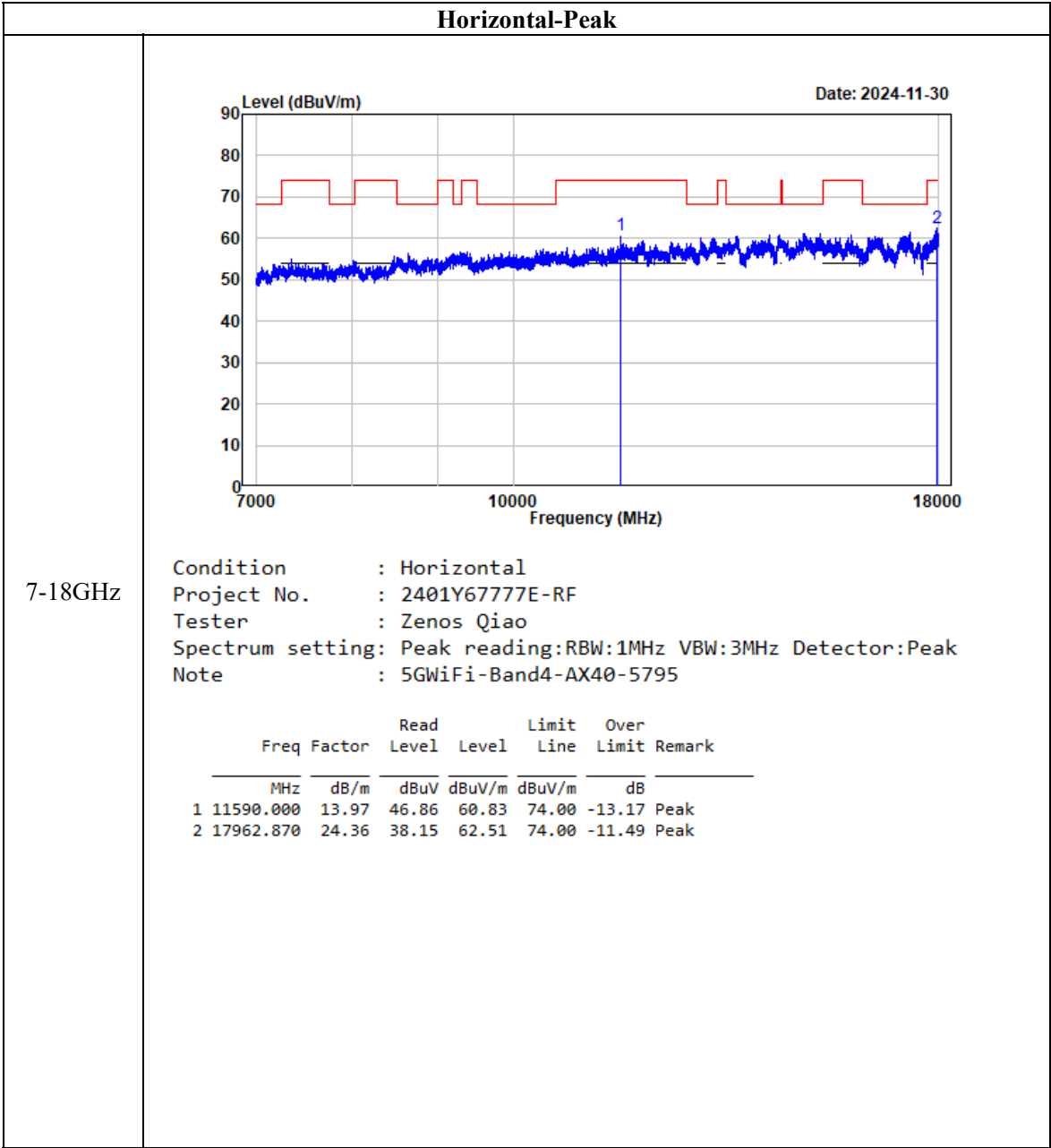


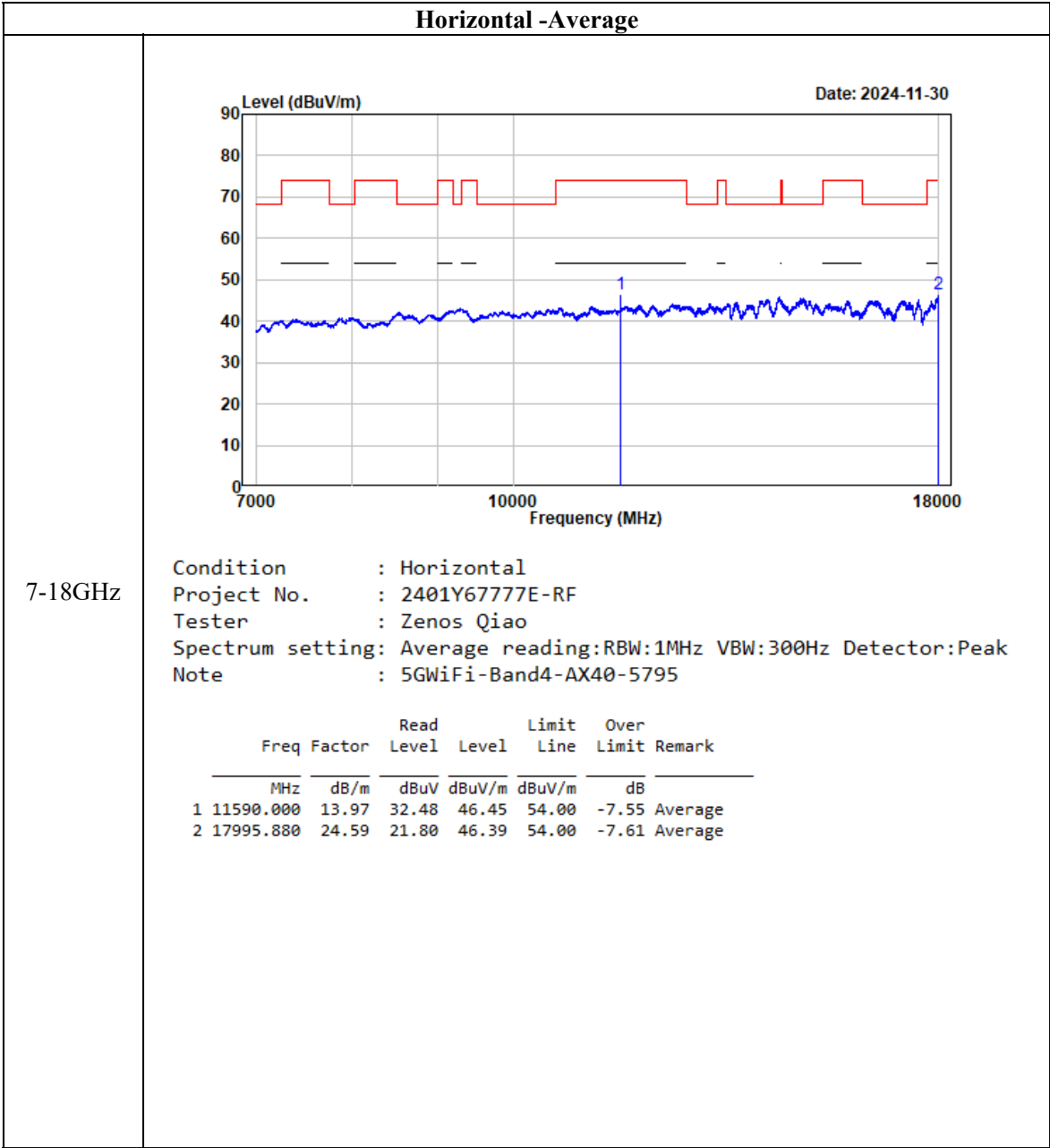


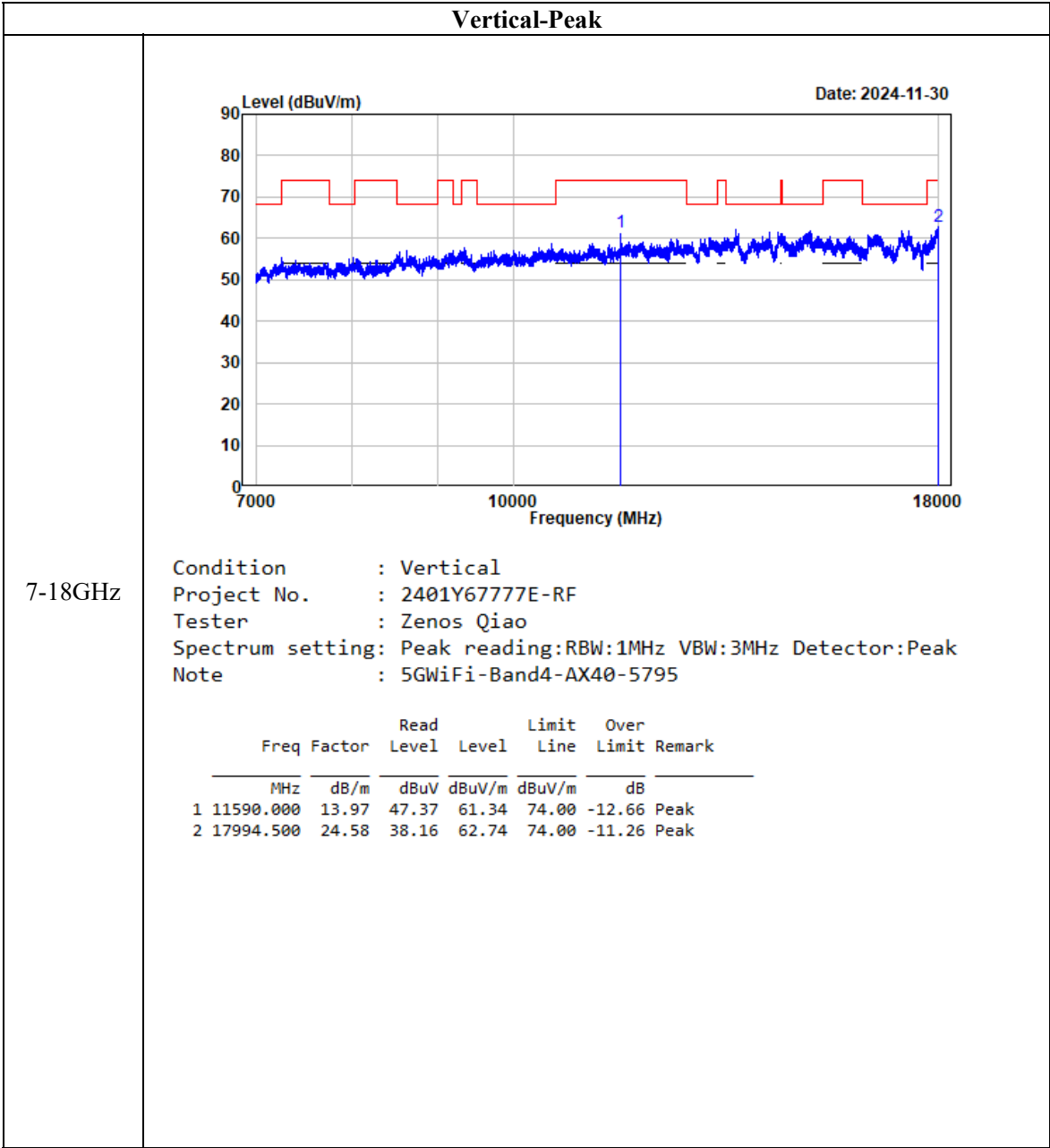
802.11 ax40

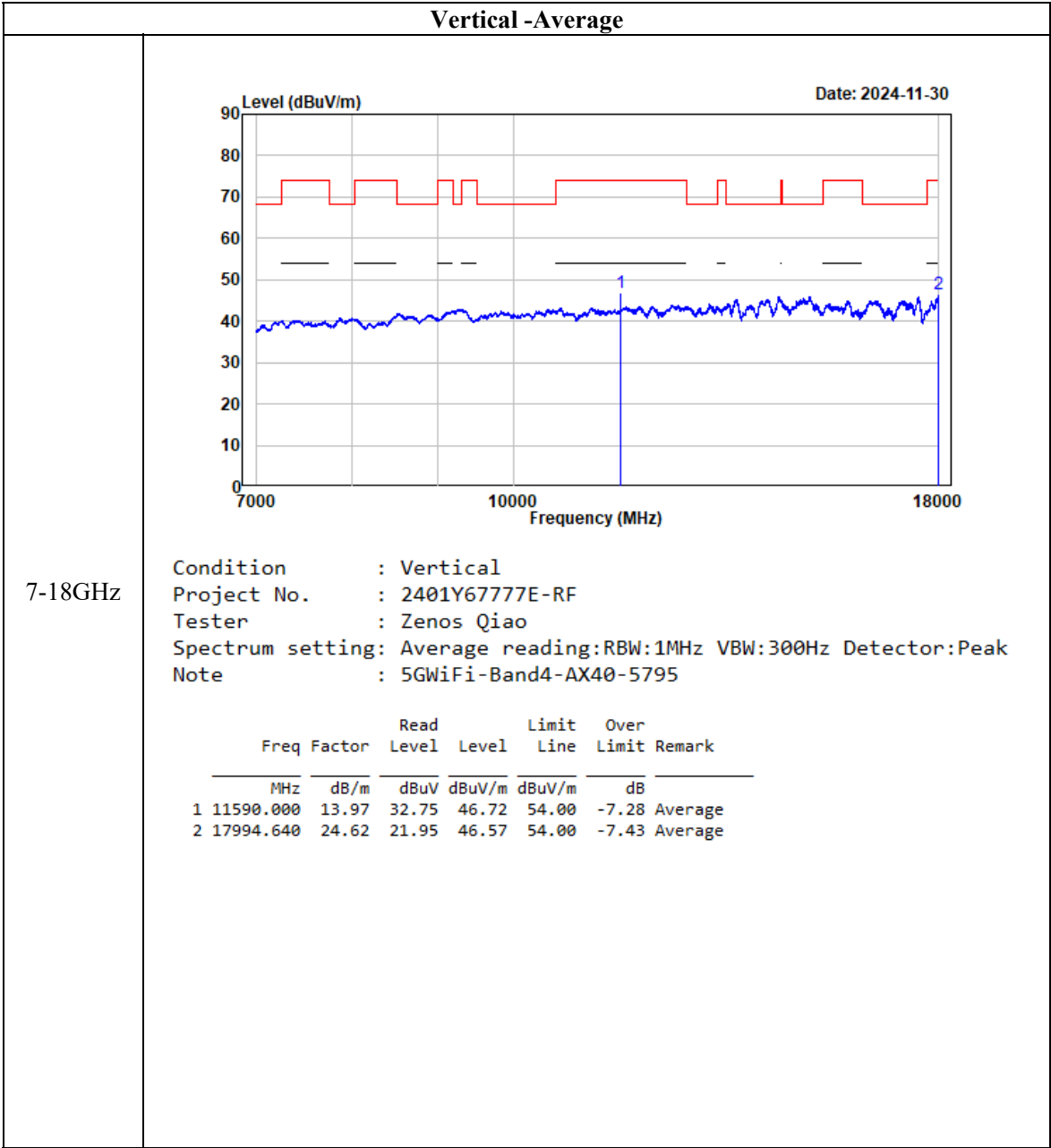




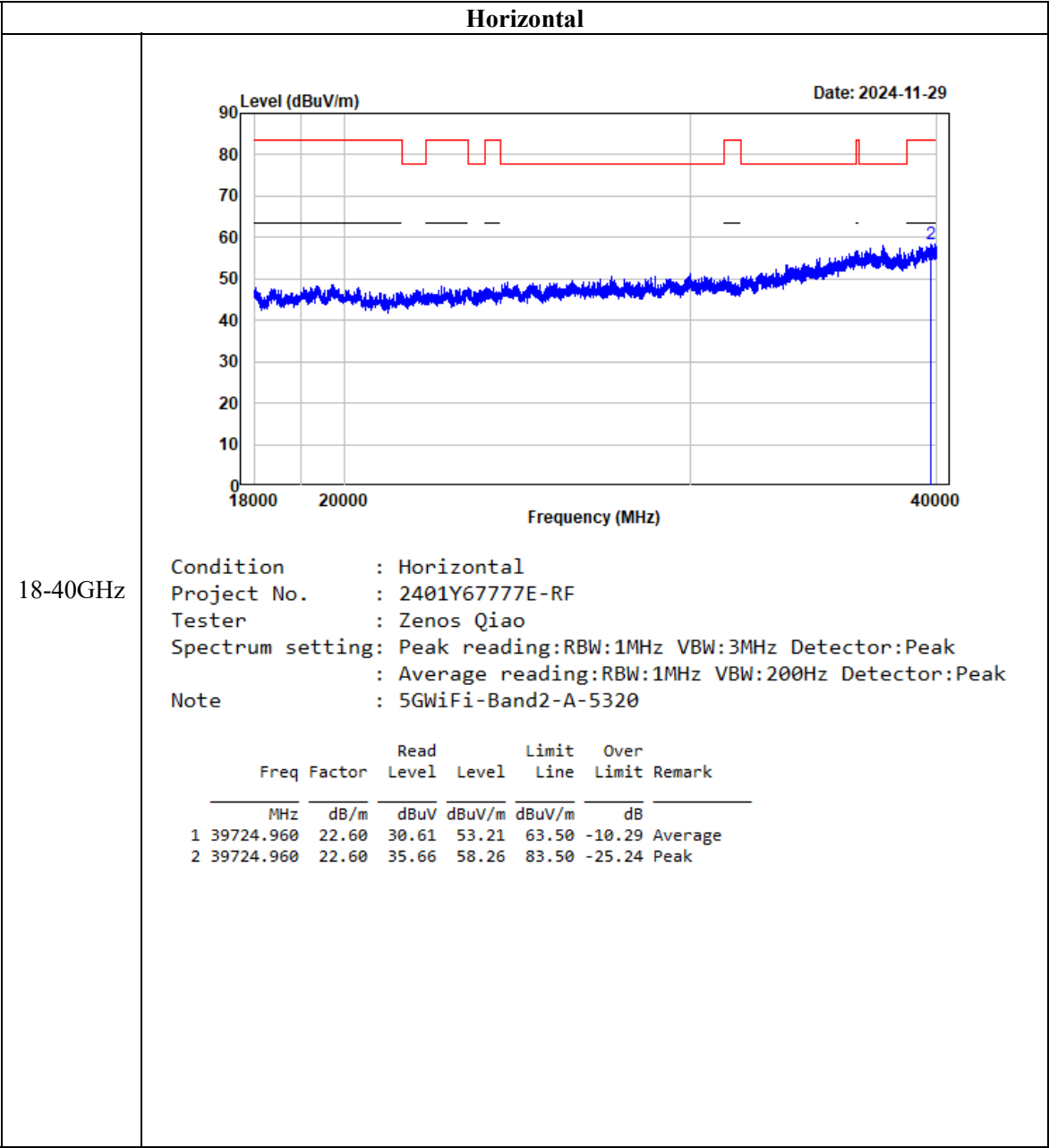


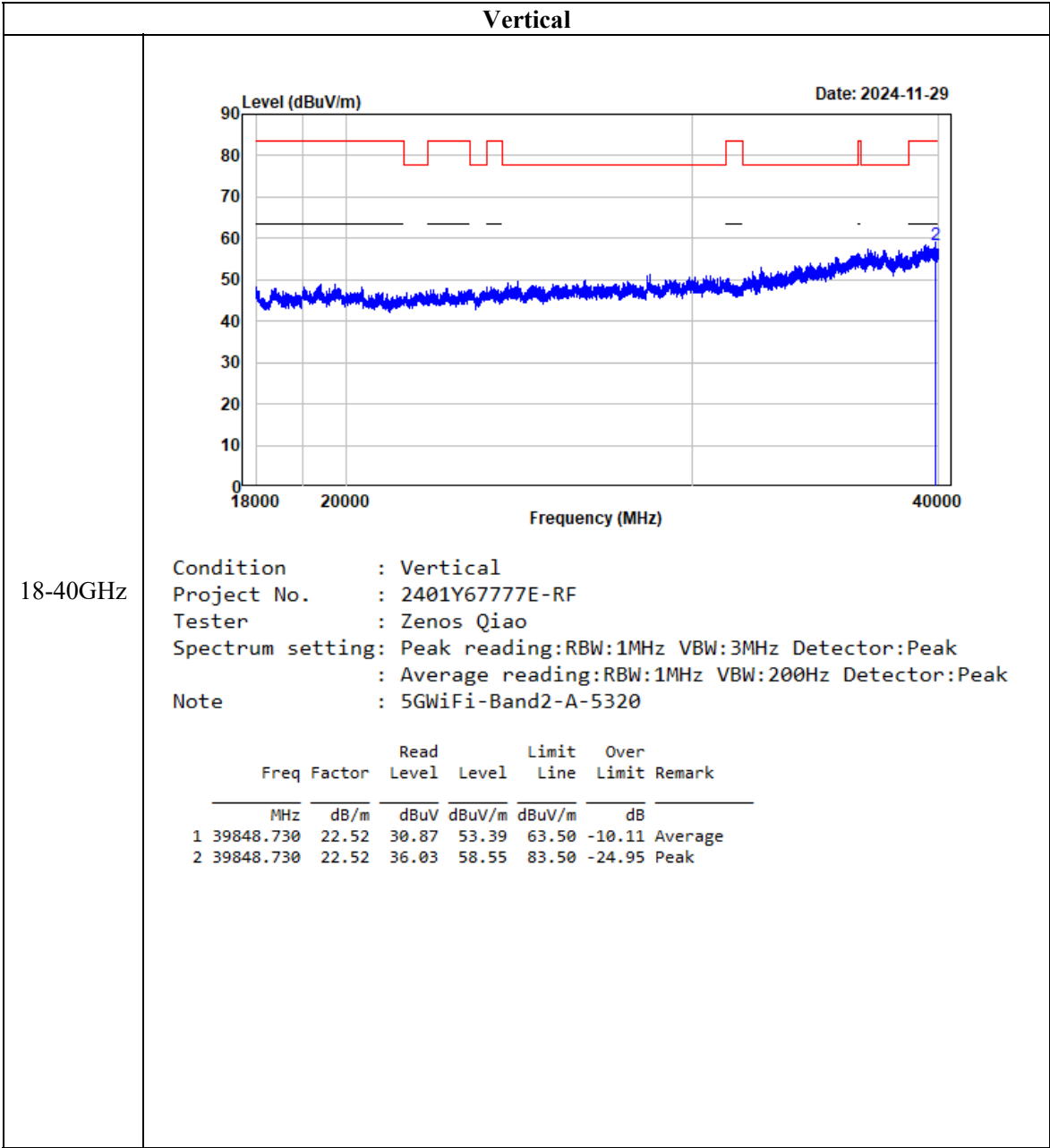






18-40GHz (Only with worst case margin mode plot):





FCC §15.407(a), (e) - 26 dB & 6dB EMISSION BANDWIDTH

Applicable Standard

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

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

Test Procedure

According to KDB789033 D02 section II.C and section II.D

1. Emission Bandwidth (EBW)

- 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. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

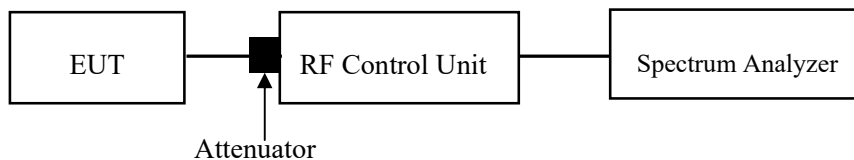
3. 99% Occupied Bandwidth:

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

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

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

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



Test Data

Environmental Conditions

Temperature:	23.5~25 °C
Relative Humidity:	38~55 %
ATM Pressure:	100.2~101 kPa

The testing was performed by Lee Li and Cheeb Huang from 2024-11-08 to 2025-01-13.

EUT operation mode: Transmitting

Test Result: Compliant.

Please refer to the Appendix.

FCC §15.407(a) - CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

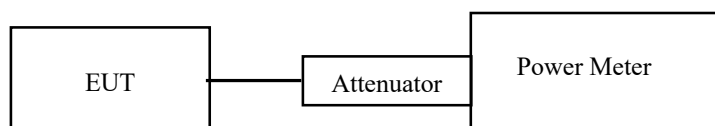
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method PM-G should be applied

- Place the EUT on a bench and set it in transmitting mode.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.



Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	55 %
ATM Pressure:	101 kPa

The testing was performed by Lee Li on 2024-11-08.

EUT operation mode: Transmitting

Test Result: Compliant.

Please refer to the Appendix.

FCC §15.407(a) - POWER SPECTRAL DENSITY

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure

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

Duty cycle $\geq 98\%$

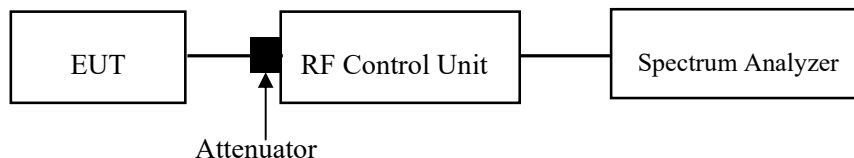
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

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

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

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

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



Note: A short RF cable with low cable loss connected to the EUT antenna port, which was provided by client or lab, the cable loss was add with offset into test equipment, the total offset consists of attenuator and/or RF cable and/or power splitter loss.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	55 %
ATM Pressure:	101 kPa

The testing was performed by Lee Li on 2024-11-08.

EUT operation mode: Transmitting

Test Result: Compliant.

Please refer to the Appendix.

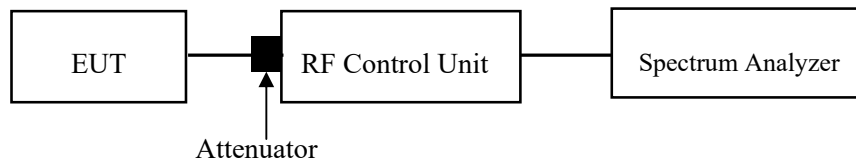
C63.10 §11.6- DUTY CYCLE

Test Procedure

According to ANSI C63.10-2013 Section 11.6

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

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



Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	55 %
ATM Pressure:	101 kPa

The testing was performed by Lee Li on 2024-11-08.

EUT operation mode: Transmitting

Test Result: Compliant.

Please refer to the Appendix.

EUT PHOTOGRAPHS

Please refer to the attachment 2401Y6777E-RF External photo and 2401Y6777E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401Y6777E-RFC Test Setup photo.

APPENDIX

Appendix A1: Emission Bandwidth

26dB Emission Bandwidth 5150-5250MHz

Mode	Antenna	Test Frequency (MHz)	Result (MHz)
802.11a	Ant1	5180	22.540
		5200	22.477
		5240	22.550
802.11n20	Ant1	5180	22.725
		5200	22.585
		5240	22.795
802.11n40	Ant1	5190	41.375
		5230	41.699
802.11ax20_RU_Full	Ant1	5180	22.908
		5200	22.956
		5240	23.043
802.11ax40_RU_Full	Ant1	5190	41.875
		5230	42.000

5250-5350MHz

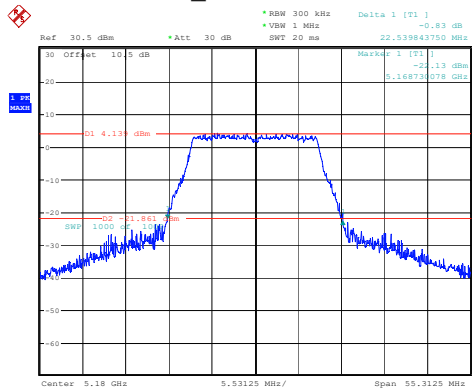
Mode	Antenna	Test Frequency (MHz)	Result (MHz)
802.11a	Ant1	5260	24.545
		5280	22.684
		5320	24.426
802.11n20	Ant1	5260	23.191
		5280	23.004
		5320	24.749
802.11n40	Ant1	5270	46
		5310	41.250
802.11ax20_RU_Full	Ant1	5260	22.916
		5280	22.884
		5320	23.027
802.11ax40_RU_Full	Ant1	5270	41.750
		5310	41.875

5470-5725MHz

Mode	Antenna	Test Frequency (MHz)	Result (MHz)
802.11a	Ant1	5500	22.604
		5580	22.535
		5700	22.481
802.11n20	Ant1	5500	22.688
		5580	22.986
		5700	22.667
802.11n40	Ant1	5510	44.750
		5550	42
		5670	42.500
802.11ax20_RU_Full	Ant1	5500	22.979
		5580	22.732
		5700	22.972
802.11ax40_RU_Full	Ant1	5510	42
		5550	42.125
		5670	42

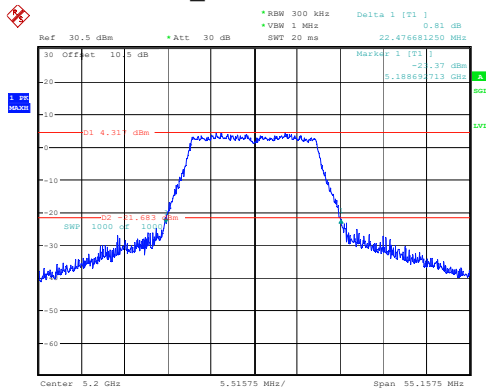
5150-5250MHz

802.11a_5180MHz 22.540MHz



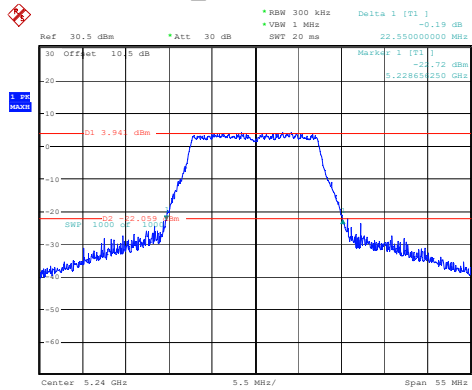
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Date: 7.JAN.2025 11:29:52

802.11a_5200MHz 22.477MHz



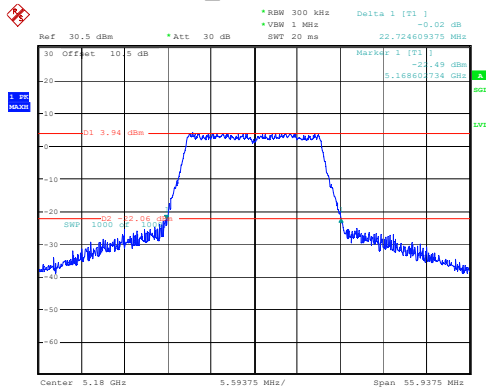
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802.11a_5240MHz 22.550MHz



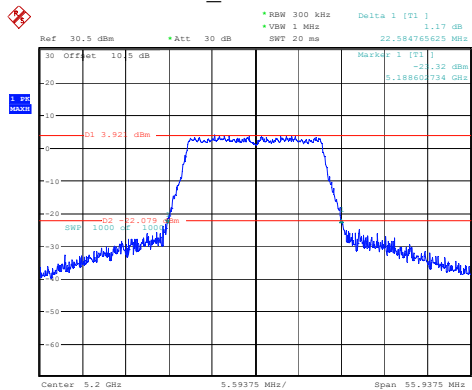
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802.11n20_5180MHz 22.725MHz



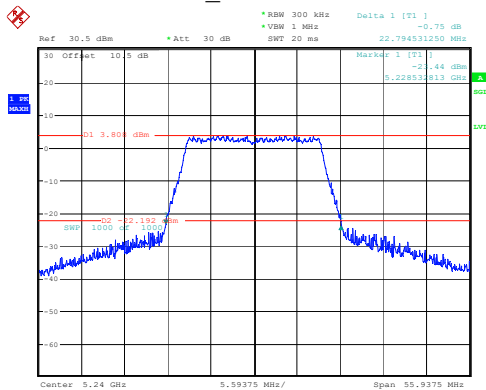
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802.11n20_5200MHz 22.585MHz



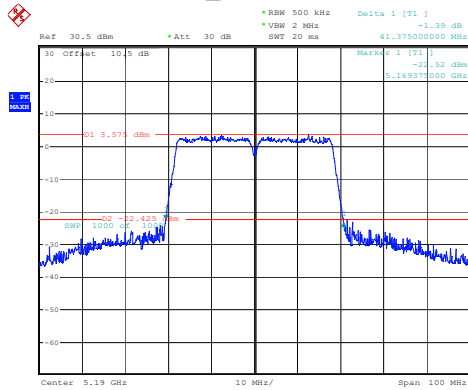
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802.11n20_5240MHz 22.795MHz



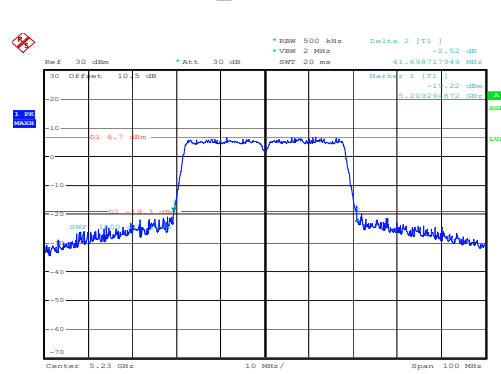
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802.11n40_5190MHz 41.375MHz



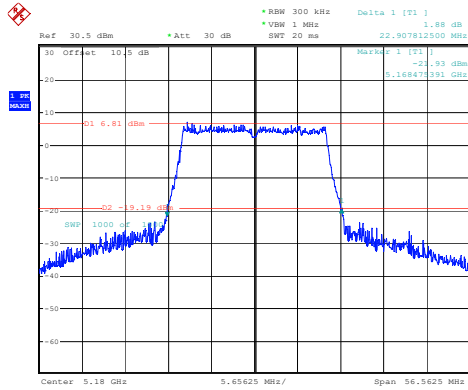
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802.11n40_5230MHz 41.699MHz



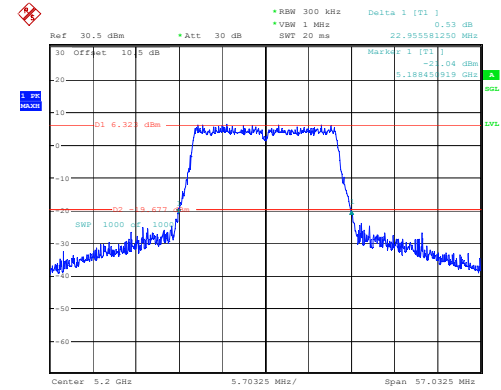
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802.11ax20_5180MHz_RU_Full 22.908MHz



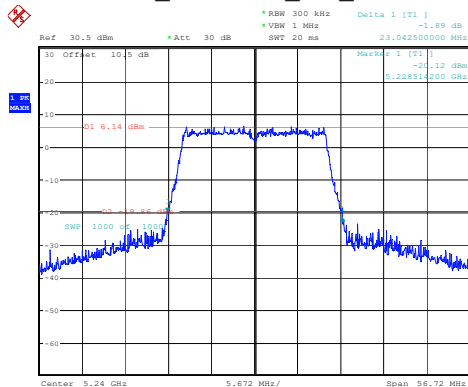
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802.11ax20_5200MHz_RU_Full 22.956MHz



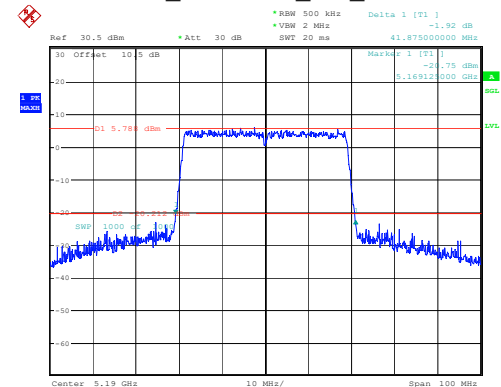
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802.11ax20_5240MHz_RU_Full 23.043MHz



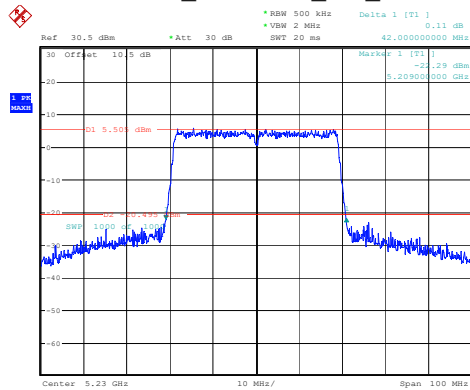
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802.11ax40_5190MHz_RU_Full 41.875MHz



ProjectNo.:2401Y6777E-RF Tester:Cheeb Huang
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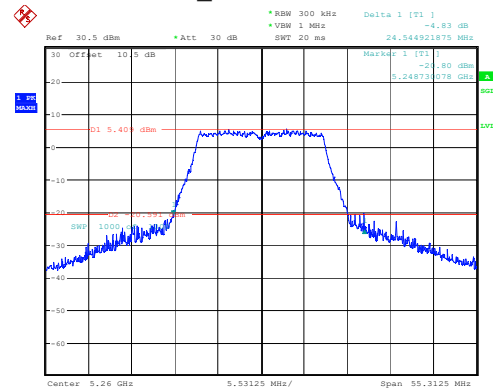
802.11ax40_5230MHz RU_Full 42MHz



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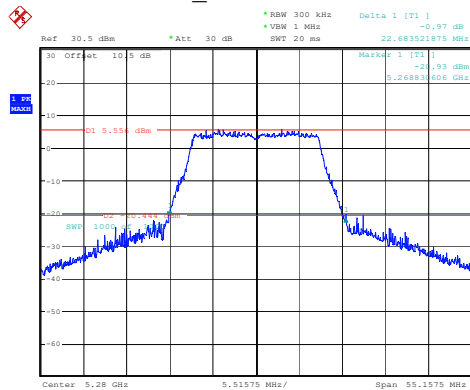
5250-5350MHz

802.11a_5260MHz 24.545MHz



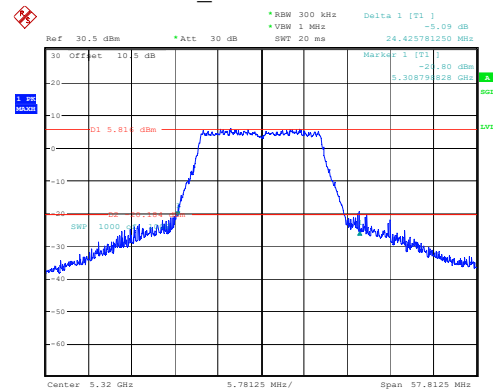
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802.11a_5280MHz 22.684MHz



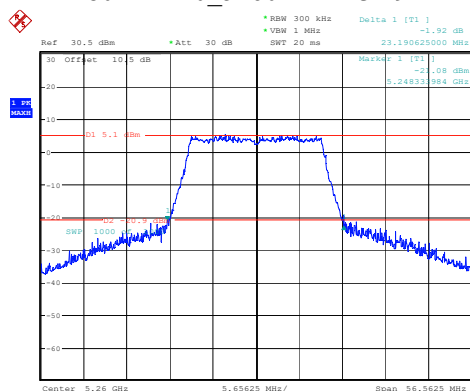
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802.11a_5320MHz 24.426MHz



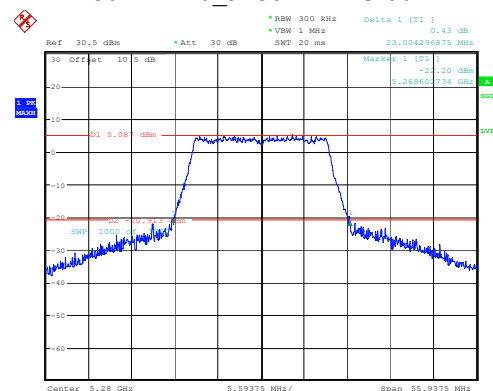
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802.11n20_5260MHz 23.191MHz



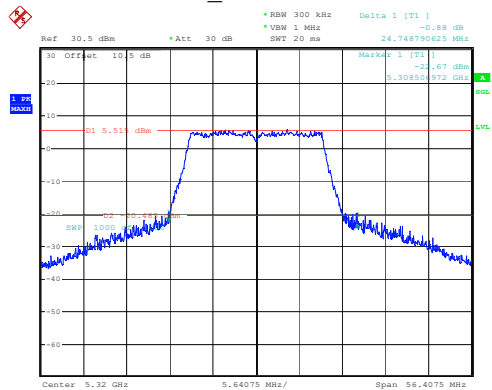
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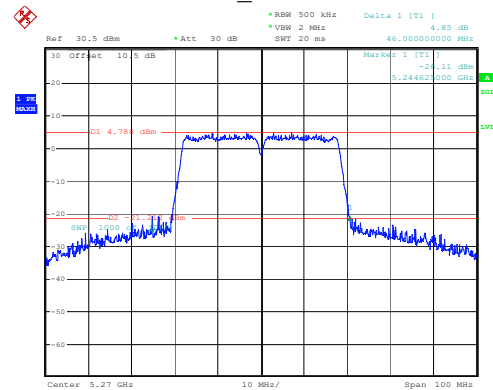
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802.11n20_5320MHz 24.749MHz



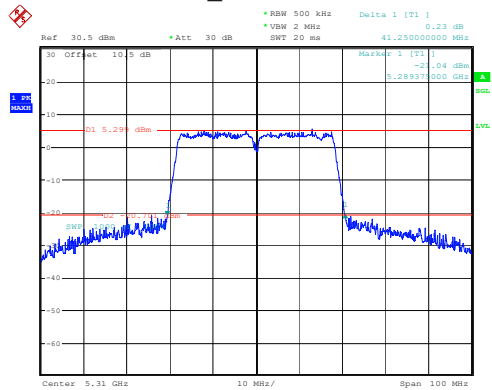
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802.11n40_5270MHz 46MHz



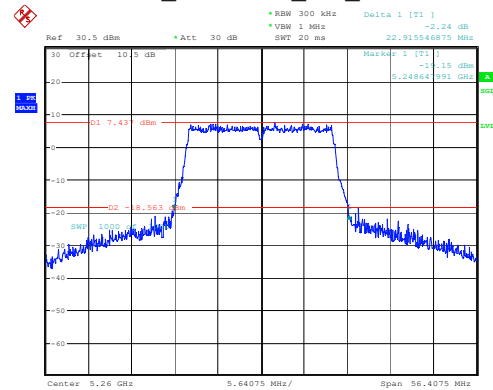
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802.11n40_5310MHz 41.250MHz



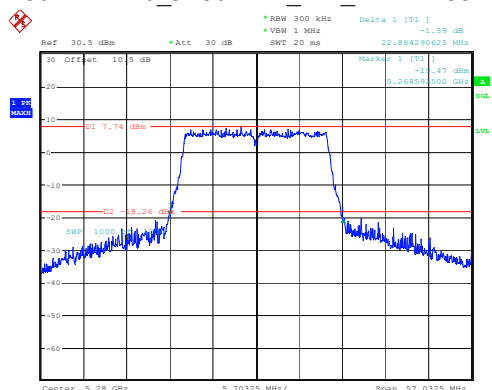
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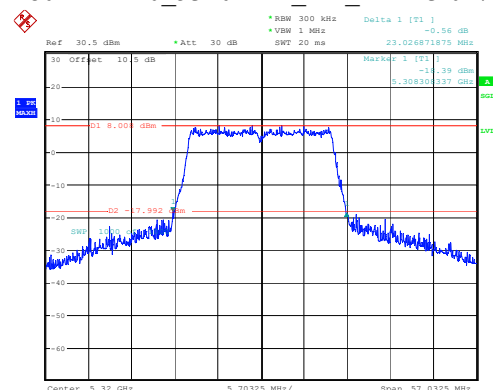
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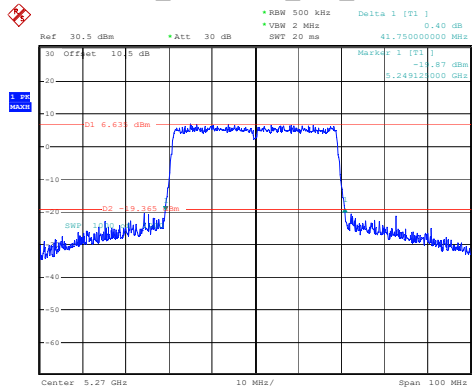
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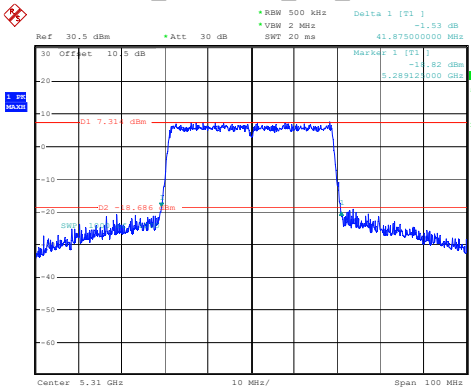
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802.11ax40_5270MHz_RU_Full 41.750MHz



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Date: 7.JAN.2025 14:51:41

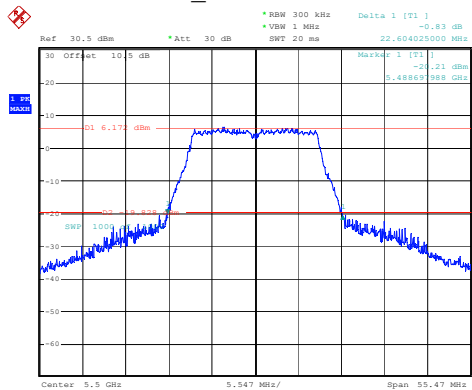
802.11ax40_5310MHz_RU_Full 41.875MHz



ProjectNo.:2401Y67777E-RF Tester:Cheeb Huang
Date: 7.JAN.2025 14:53:26

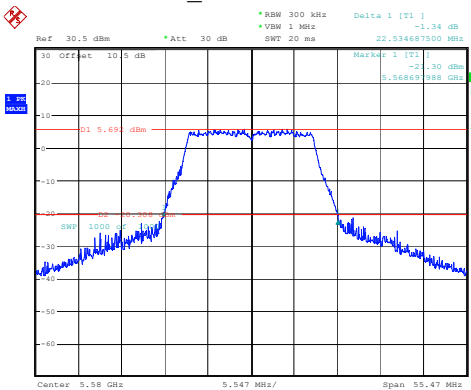
5470-5725MHz

802.11a_5500MHz 22.604MHz



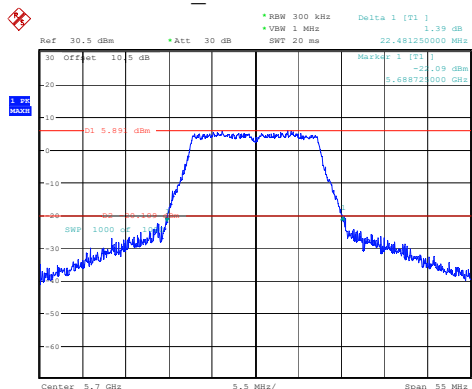
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Date: 7.JAN.2025 11:44:29

802.11a_5580MHz 22.535MHz



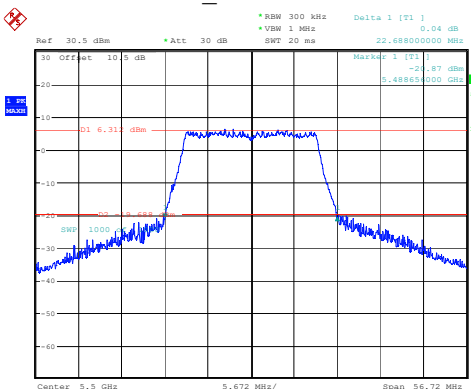
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Date: 7.JAN.2025 11:46:35

802.11a_5700MHz 22.481MHz



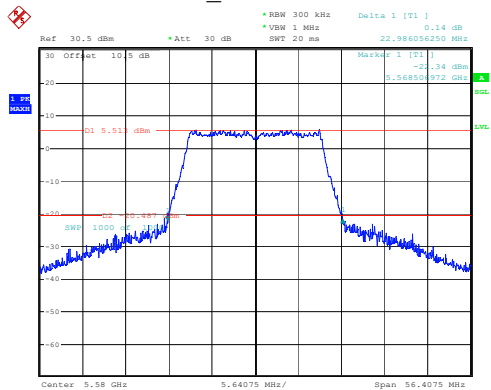
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Date: 7.JAN.2025 11:48:36

802.11n20_5500MHz 22.688MHz



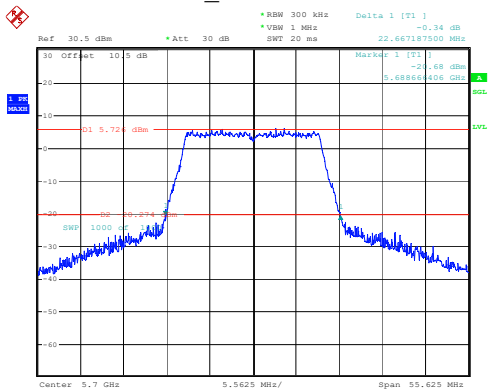
ProjectNo.:2401Y67777E-RF Tester:Cheeb Huang
Date: 7.JAN.2025 13:13:42

802.11n20_5580MHz 22.986MHz



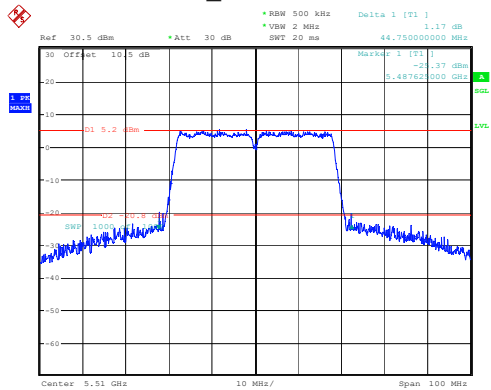
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Date: 7.JAN.2025 13:15:46

802.11n20_5700MHz 22.667MHz



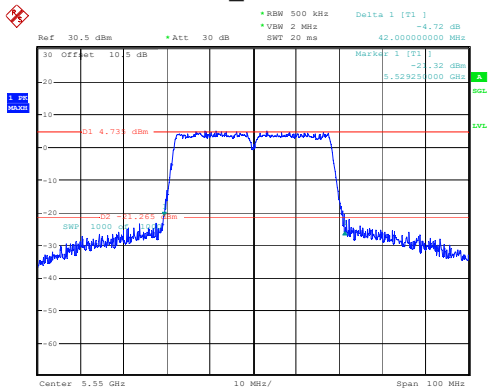
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Date: 7.JAN.2025 13:19:47

802.11n40_5510MHz 44.750MHz



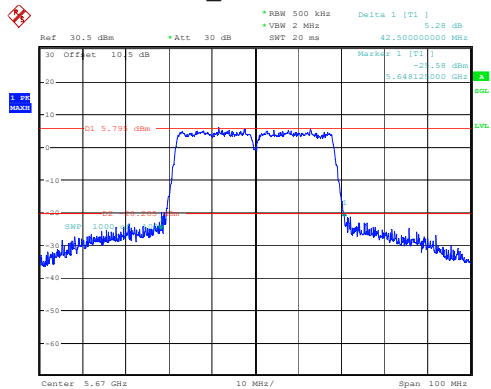
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Date: 7.JAN.2025 14:37:53

802.11n40_5550MHz 42MHz



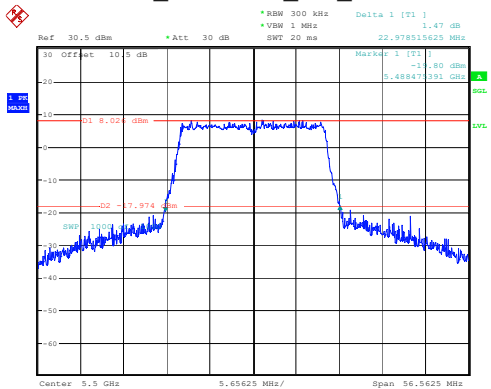
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Date: 7.JAN.2025 14:39:41

802.11n40_5670MHz 42.500MHz



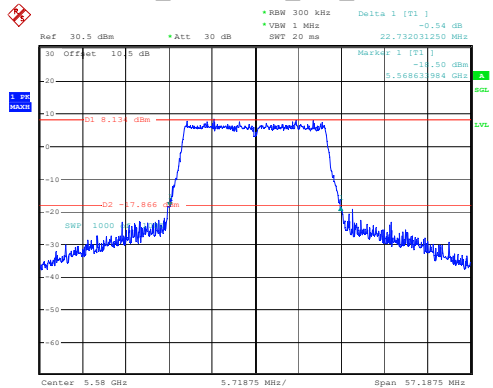
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Date: 7.JAN.2025 14:41:56

802.11ax20_5500MHz_RU_Full 22.979MHz



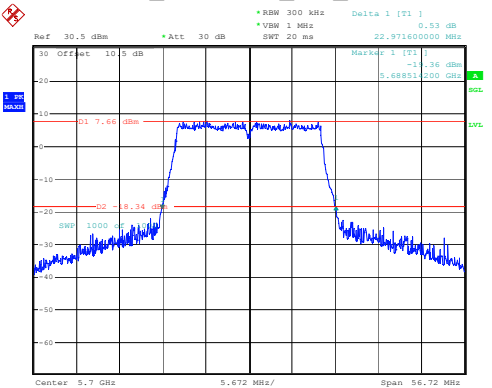
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Date: 7.JAN.2025 13:52:01

802.11ax20_5580MHz_RU_Full 22.732MHz



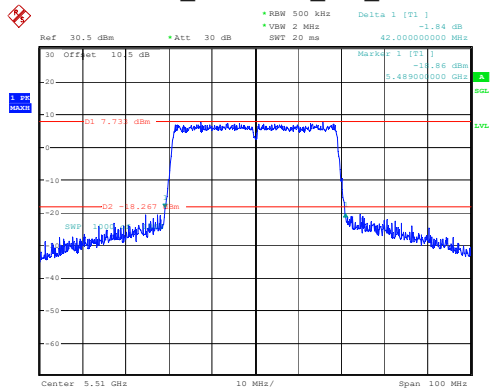
ProjectNo.:2401Y67777E-RF Tester:Cheeb Huang
Date: 7.JAN.2025 13:54:49

802.11ax20_5700MHz_RU_Full 22.972MHz



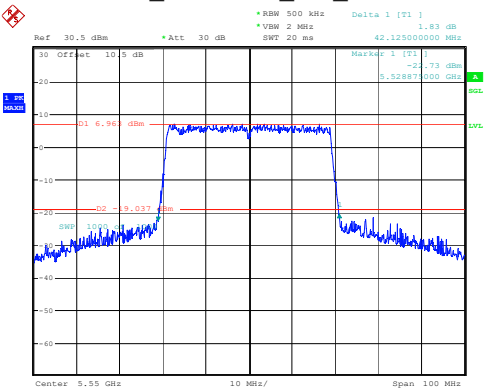
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Date: 7.JAN.2025 13:57:41

802.11ax40_5510MHz_RU_Full 42MHz



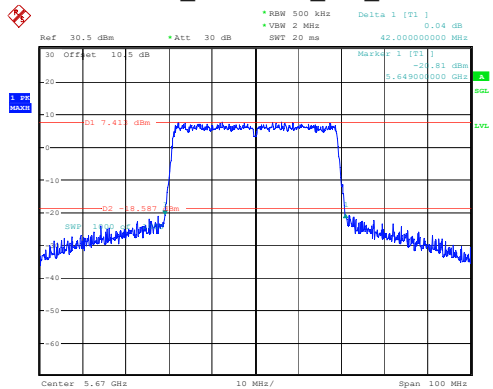
ProjectNo.:2401Y67777E-RF Tester:Cheeb Huang
Date: 7.JAN.2025 14:55:10

802.11ax40_5550MHz_RU_Full 42.125MHz



ProjectNo.:2401Y67777E-RF Tester:Cheeb Huang
Date: 7.JAN.2025 14:56:56

802.11ax40_5670MHz_RU_Full 42MHz



ProjectNo.:2401Y67777E-RF Tester:Cheeb Huang
Date: 7.JAN.2025 14:58:42

Appendix A2: Occupied Channel Bandwidth Test Result

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.102	5170.9291	5189.0310	---	---
		5200	18.262	5190.9291	5209.1908	---	---
		5240	18.262	5230.9291	5249.1908	---	---
		5260	18.422	5250.8092	5269.2308	---	---
		5280	18.102	5270.8492	5288.9510	---	---
		5320	18.102	5310.8092	5328.9111	---	---
		5500	18.661	5490.9291	5509.5904	---	---
		5580	18.262	5570.6893	5588.9510	---	---
		5700	18.262	5690.8092	5709.0709	---	---
		5745	18.142	5735.8492	5753.9910	---	---
		5785	18.102	5775.8092	5793.9111	---	---
		5825	18.102	5815.8492	5833.9510	---	---
11N20SISO	Ant1	5180	18.941	5170.5295	5189.4705	---	---
		5200	18.941	5190.5694	5209.5105	---	---
		5240	19.021	5230.4895	5249.5105	---	---
		5260	19.141	5250.4496	5269.5904	---	---
		5280	18.941	5270.4496	5289.3906	---	---
		5320	18.861	5310.4496	5329.3107	---	---
		5500	19.421	5490.5295	5509.9500	---	---
		5580	18.941	5570.3696	5589.3107	---	---
		5700	18.901	5690.5295	5709.4306	---	---
		5745	18.941	5735.4496	5754.3906	---	---
		5785	18.861	5775.4895	5794.3506	---	---
		5825	18.781	5815.5295	5834.3107	---	---
11N40SISO	Ant1	5190	37.243	5171.5385	5208.7812	---	---
		5230	37.163	5211.6184	5248.7812	---	---
		5270	37.163	5251.3786	5288.5415	---	---
		5310	37.083	5291.2188	5328.3017	---	---
		5510	37.642	5491.5385	5529.1808	---	---
		5550	37.323	5531.2987	5568.6214	---	---
		5670	37.083	5651.3786	5688.4615	---	---
		5755	37.243	5736.2987	5773.5415	---	---
		5795	37.243	5776.2987	5813.5415	---	---
11AX20SISO	Ant1	5180	19.58	5170.1698	5189.7502	---	---
		5200	19.62	5190.2098	5209.8302	---	---
		5240	19.5	5230.2498	5249.7502	---	---
		5260	19.7	5250.1299	5269.8302	---	---
		5280	19.54	5270.1698	5289.7103	---	---
		5320	19.54	5310.1299	5329.6703	---	---
		5500	19.7	5490.2498	5509.9500	---	---
		5580	19.62	5570.0500	5589.6703	---	---
		5700	19.58	5690.1698	5709.7502	---	---
		5745	19.58	5735.0899	5754.6703	---	---
		5785	19.54	5775.1698	5794.7103	---	---
		5825	19.5	5815.2098	5834.7103	---	---
11AX40SISO	Ant1	5190	38.202	5170.9790	5209.1808	---	---
		5230	38.362	5210.8991	5249.2607	---	---
		5270	38.362	5250.8192	5289.1808	---	---
		5310	38.362	5290.6593	5329.0210	---	---
		5510	38.442	5490.9790	5529.4206	---	---
		5550	38.362	5530.8192	5569.1808	---	---
		5670	38.282	5650.8192	5689.1009	---	---
		5755	38.282	5735.8192	5774.1009	---	---
		5795	38.362	5775.7393	5814.1009	---	---

Note: For W52 and W58 band, no transmitted signal in the 99% bandwidth extends into the U-NII-2A band and U-NII-2C band.

Test Graphs

