

# TEST REPORT

Applicant Name: Bytech NY Inc.  
Address: 2585 West 13th Street, Brooklyn NY 11223, New York, United States  
Report Number: 2501T59580E-RF-00  
FCC ID: 2AHN6-DE8

**Test Standard (s)**

FCC PART 15.249

**Sample Description**

Product Type: Wavy Wireless Mouse-dongle  
Model No.: DE8  
Multiple Model(s) No.: N/A  
Trade Mark: BYTECH  
Date Received: 2025/05/21  
Issue Date: 2025/07/01

Test Result:	Pass▲
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▲ In the configuration tested, the EUT complied with the standards above.

**Prepared and Checked By:**

Allen. Bai

Allen Bai  
RF Engineer

**Approved By:**

*Nancy Wang*

Nancy Wang  
RF Supervisor

Note: The information marked<sup>#</sup> 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	2501T59580E-RF-00	Original Report	2025/07/01

## GENERAL INFORMATION

### Product Description for Equipment under Test (EUT)

Product	Wavy Wireless Mouse-dongle
Tested Model	DE8
Multiple Model(s)	N/A
Frequency Range	2402-2479MHz
Maximum E-field strength	74.55dBuV/m@3m
Modulation Technique	GFSK
Antenna Specification <sup>#</sup>	3.55dBi (provided by the applicant)
Voltage Range	DC 5V from USB port
Sample serial number	33A3-3 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	N/A

### Objective

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

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.249 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.

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 150kHz-30MHz	3.63dB(k=2, 95% level of confidence) 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 by manufacturer.

### Frequency Channel List:

Channel No.	Frequency (MHz)						
1	2402	5	2421	9	2446	13	2468
2	2408	6	2423	10	2451	14	2474
3	2417	7	2428	11	2456	15	2478
4	2419	8	2437	12	2460	16	2479

Note: Test on Channel 1, 8 and 16.

### EUT Exercise Software

“fcc\_test\_tool.exe”# exercise software was used and the power level is Default#. The software and power level was provided by the applicant.

### Equipment Modifications

No modifications were made to the unit tested.

### Support Equipment List and Details

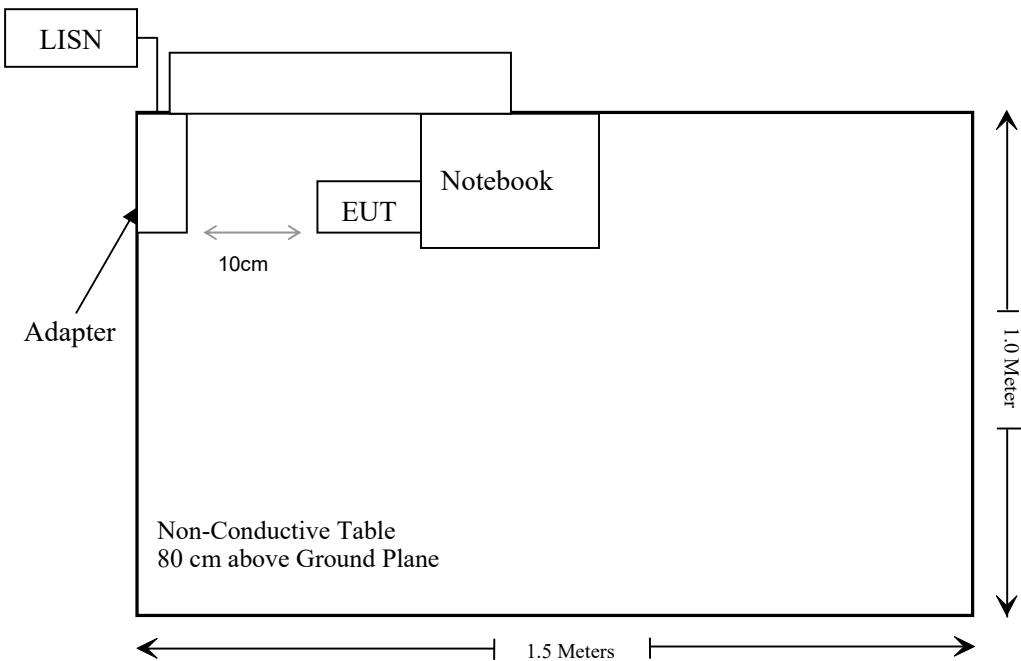
Manufacturer	Description	Model	Serial Number
Lenovo	Notebook	DESKTOP-9V9ZN6E	1062222901869
Lenovo	Adapter	ADLX65NDC3A	Unknown

### Support Cable Descriptions

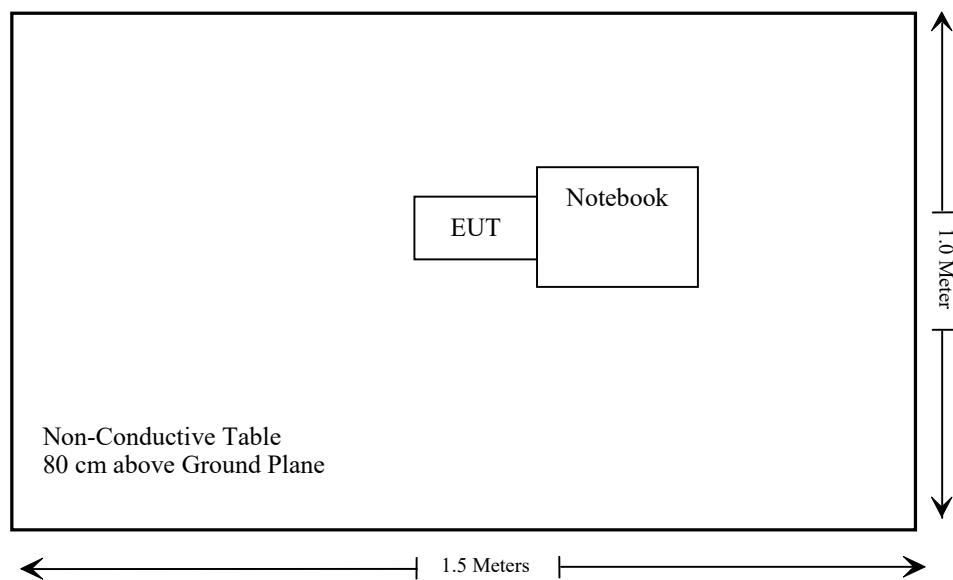
Cable Description	Length (m)	From/Port	To
Shielded Un-detachable DC cable	1.5	Adapter	Notebook
Unshielded Detachable AC cable	1.2	Adapter	LISN
Unshielded Detachable USB Extension Cable	1.5	EUT	Notebook

## Block Diagram of Test Setup

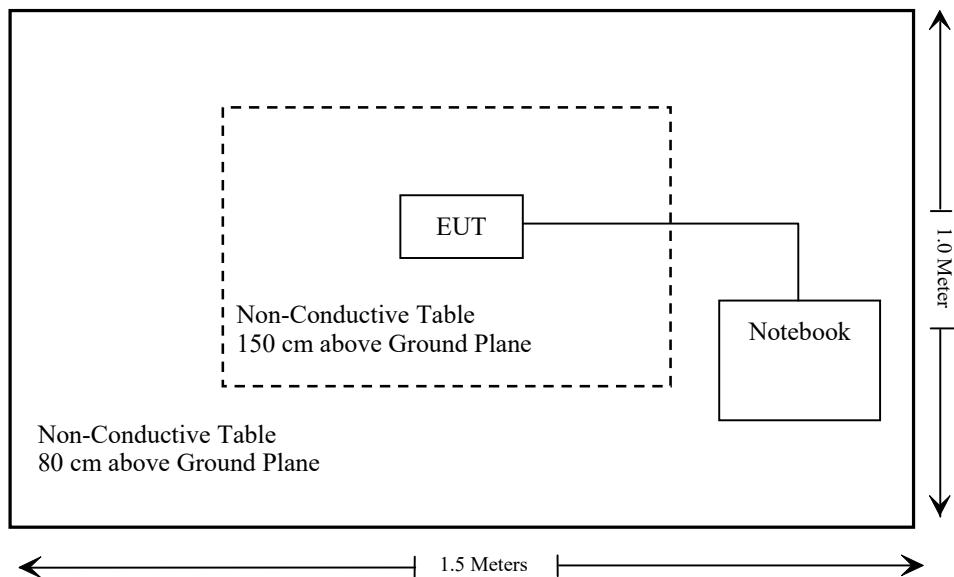
For Conducted Emissions:



For Radiated Emissions below 1GHz:



For Radiated Emissions above 1GHz:



**SUMMARY OF TEST RESULTS**

FCC Rules	Description of Test	Result
§1.1307 (b) (3) &§2.1093	RF Exposure	Compliant
§15.203	Antenna Requirement	Compliant
§15.207(a)	Conduction Emissions	Compliant
15.205, §15.209, §15.249(d)	Radiated Emissions& Outside of Band Emission	Compliant
§15.215 (c)	20 dB Bandwidth	Compliant

## TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Conducted Emissions Test</b>					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/12/04	2025/12/03
Rohde & Schwarz	LISN	ENV216	101613	2024/12/04	2025/12/03
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2025/04/29	2026/04/28
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2025/04/29	2026/04/28
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
<b>Radiated Emissions Test</b>					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/12/04	2025/12/03
Sonoma instrument	Pre-amplifier	310 N	186238	2025/04/29	2026/04/28
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2025/04/29	2026/04/28
Unknown	Cable	XH500C	J-10M-A	2025/04/29	2026/04/28
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Unknown	Cable	2Y194	0735	2024/12/04	2025/12/03
Unknown	Cable	PNG214	1354	2024/12/04	2025/12/03
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2025/03/26	2026/03/25
A.H.System	Preamplifier	PAM-0118P	489	2024/11/15	2025/11/14
Schwarzbeck	Horn Antenna	BBHA9120D(12 01)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	735	2024/12/06	2025/12/05
Unknown	RF Cable	UFA147	219661	2024/12/06	2025/12/05
Unknown	RF Cable	XH750A-N	J-10M	2024/12/06	2025/12/05
JD	Filter Switch Unit	DT7220FSU	DS79906	2024/09/09	2025/09/08
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2024/09/09	2025/09/08
A.H.System	Pre-amplifier	PAM-1840VH	190	2025/04/29	2026/04/28
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2024/12/18	2025/12/17
Audix	EMI Test software	E3	191218(V9)	NCR	NCR

**\* 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) (3) &§2.1093 - RF EXPOSURE****Applicable Standard**

According to FCC §2.1093 and §1.1307(b)(3), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D04 Interim General RF Exposure Guidance v01

1-Mw Test Exemption:

Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

**For worst case:**

Mode	Frequency (MHz)	Maximum E-Field (dBuV/m@3m)	Maximum EIRP		1-mW Test Exemption
			(dBm)	(mW)	
GFSK	2402-2479	74.55	-20.65	0.009	Yes

Note: EIRP = E-Field – 95.2 @3m

**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 antenna gain<sup>#</sup> is 3.55dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Antenna Type	Antenna Gain <sup>#</sup>	Impedance	Frequency Range
PCB	3.55dBi	50Ω	2402-2479MHz

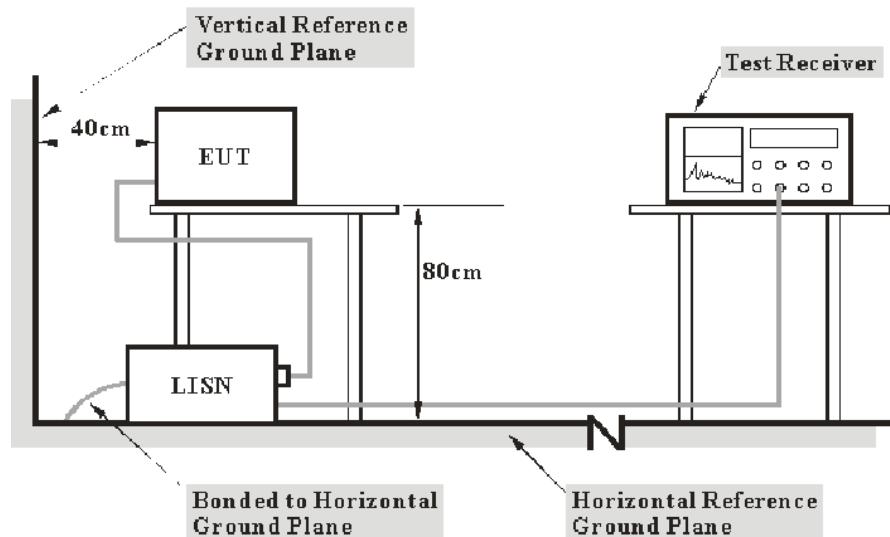
**Result: Compliant.**

## FCC §15.207 (a) - AC LINE CONDUCTED EMISSIONS

### Applicable Standard

FCC §15.207(a)

### EUT Setup



The measurement procedure of EUT setup is according with ANSI C63.10-2013. The related limit was specified in FCC Part 15.207.

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	RBW
150 kHz – 30 MHz	9 kHz

## Test Procedure

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

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

All final 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:

$$\text{Over Limit} = \text{Level} - \text{Limit}$$

$$\text{Level} = \text{Read Level} + \text{Factor}$$

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

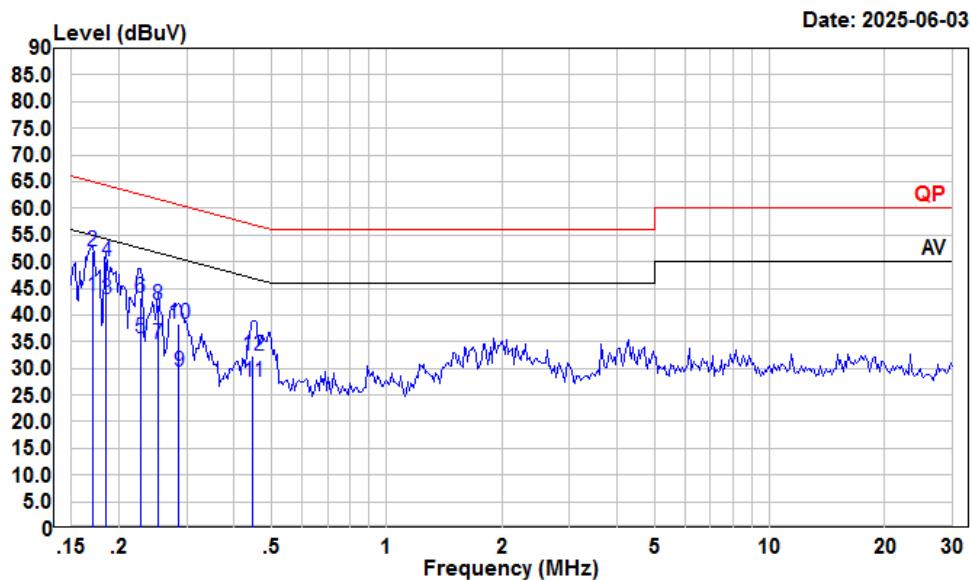
## Test Data

### Environmental Conditions

<b>Temperature:</b>	25.1 °C
<b>Relative Humidity:</b>	61 %
<b>ATM Pressure:</b>	100.2 kPa

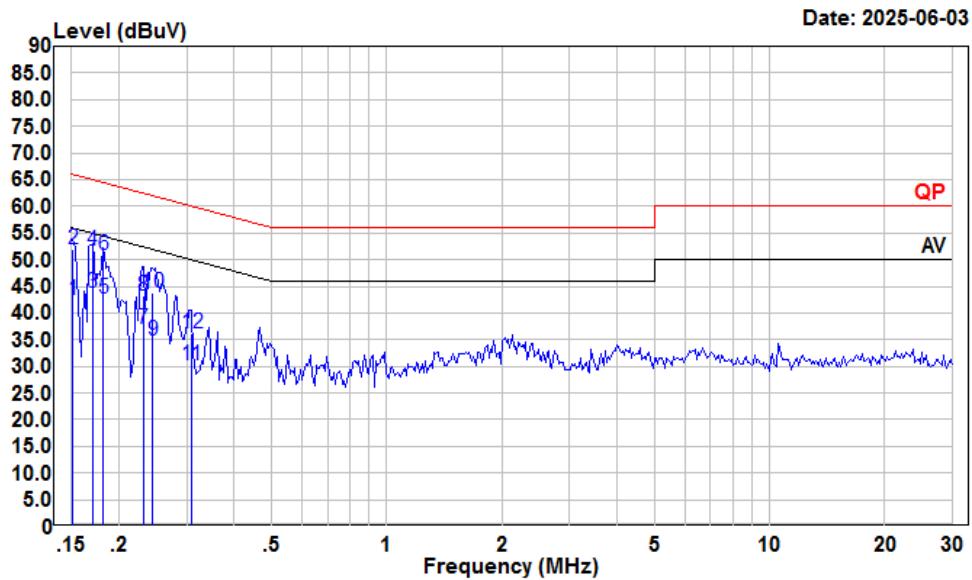
*The testing was performed by Macy Shi on 2025-06-03.*

*EUT operation mode: Transmitting (Maximum output power mode, Low channel)*

**AC 120V/60 Hz, Line**

Condition: Line  
Project : 2501T59580E-RF  
tester : Macy.shi Note:Transmitting  
Setting : RBW:9kHz

Freq	Read		LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV					
1	0.170	23.37	43.63	10.07	10.19	54.94	-11.31 Average
2	0.170	31.59	51.85	10.07	10.19	64.94	-13.09 QP
3	0.185	22.80	42.97	9.98	10.19	54.24	-11.27 Average
4	0.185	30.00	50.17	9.98	10.19	64.24	-14.07 QP
5	0.227	15.58	35.76	9.98	10.20	52.57	-16.81 Average
6	0.227	23.19	43.37	9.98	10.20	62.57	-19.20 QP
7	0.252	14.20	34.45	10.05	10.20	51.69	-17.24 Average
8	0.252	21.60	41.85	10.05	10.20	61.69	-19.84 QP
9	0.286	9.01	29.33	10.13	10.19	50.63	-21.30 Average
10	0.286	17.91	38.23	10.13	10.19	60.63	-22.40 QP
11	0.447	6.89	27.52	10.43	10.20	46.93	-19.41 Average
12	0.447	11.80	32.43	10.43	10.20	56.93	-24.50 QP

**AC 120V/60 Hz, Neutral****Condition: Neutral****Project : 2501T59580E-RF****tester : Macy.shi Note:Transmitting****Setting : RBW:9kHz**

Freq	Read		LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV					
1	0.152	21.88	42.33	10.29	10.16	55.91	-13.58 Average
2	0.152	31.61	52.06	10.29	10.16	65.91	-13.85 QP
3	0.170	23.30	43.70	10.21	10.19	54.94	-11.24 Average
4	0.170	31.30	51.70	10.21	10.19	64.94	-13.24 QP
5	0.182	22.40	42.76	10.17	10.19	54.42	-11.66 Average
6	0.182	30.60	50.96	10.17	10.19	64.42	-13.46 QP
7	0.232	16.70	37.08	10.18	10.20	52.39	-15.31 Average
8	0.232	22.92	43.30	10.18	10.20	62.39	-19.09 QP
9	0.244	14.50	34.91	10.21	10.20	51.95	-17.04 Average
10	0.244	23.50	43.91	10.21	10.20	61.95	-18.04 QP
11	0.308	9.71	30.24	10.34	10.19	50.02	-19.78 Average
12	0.308	15.77	36.30	10.34	10.19	60.02	-23.72 QP

## FCC§15.205, §15.209 & §15.249(d) - RADIATED EMISSIONS

### Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

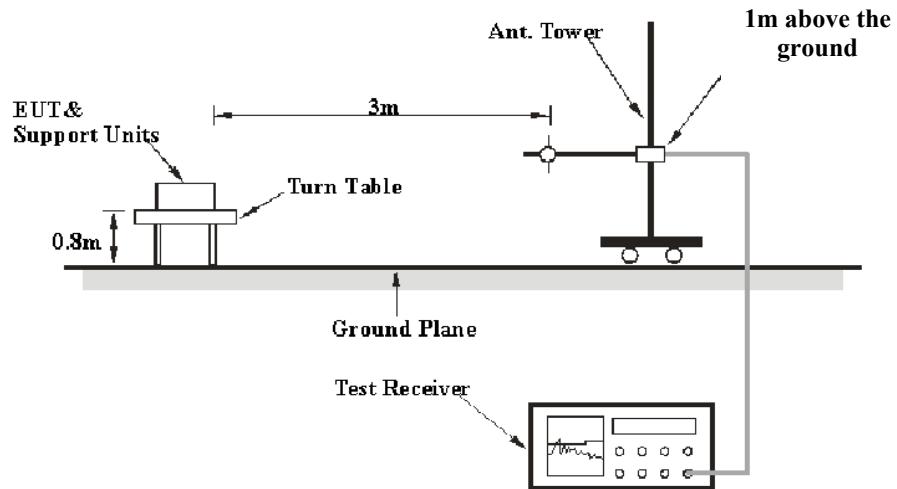
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

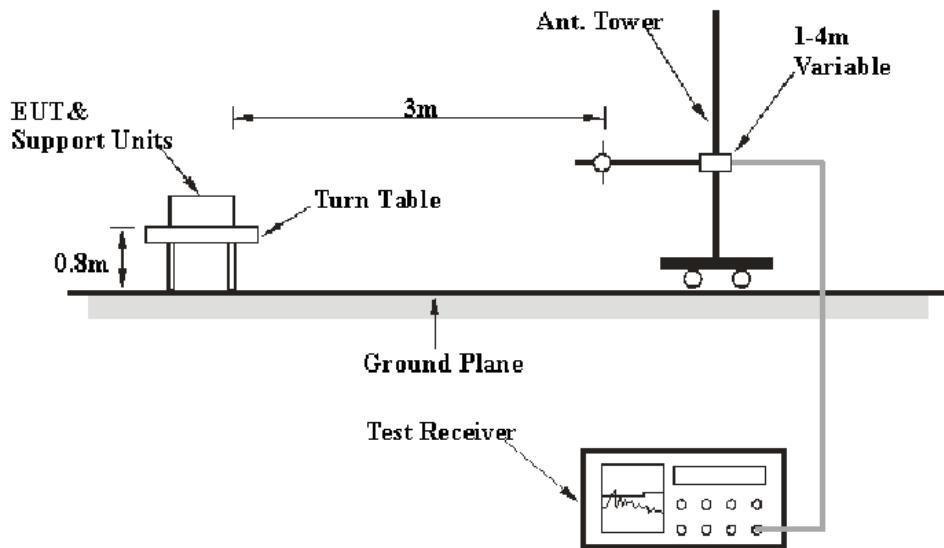
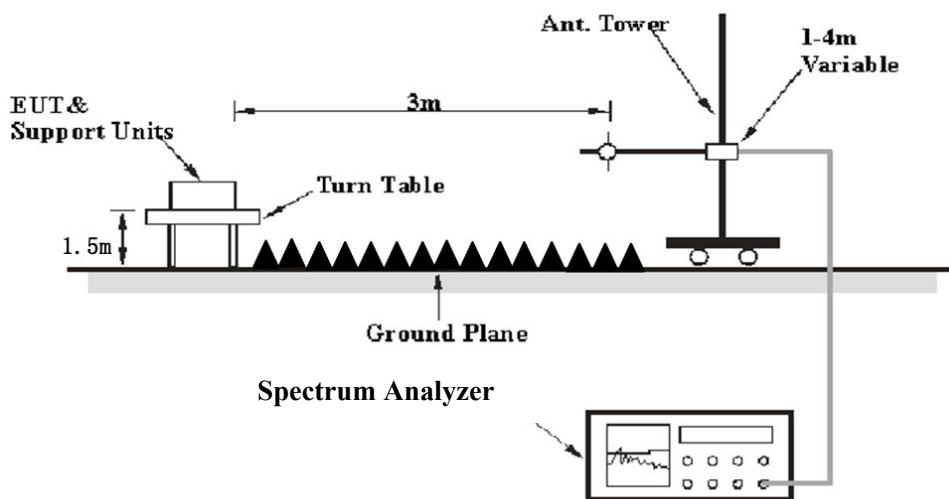
As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

As per FCC§15.249 (d), Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

### EUT Setup

#### 9 kHz-30MHz:



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

The radiated emission and out of band emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209/15.205 and FCC 15.249 limits.

## EMI Test Receiver & Spectrum Analyzer Setup

The EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector	Measurement
9 kHz – 150 kHz	/	/	200 Hz	QP	QP
	300 Hz	1 kHz	/	PK	PK
150 kHz – 30 MHz	/	/	9 kHz	QP	QP
	10 kHz	30 kHz	/	PK	PK
30 MHz – 1000 MHz	/	/	120 kHz	QP	QP
	100 kHz	300 kHz	/	PK	PK
Above 1 GHz	Harmonics				
	1MHz	3 MHz	/	PK	PK
	Average Emission Level=Peak Emission Level+20*log(Duty cycle)				
	Fundamental & Band Edge & Other Emissions				
	1MHz	3 MHz	/	PK	PK
	1MHz	≥10 Hz	/	PK	Average

For Duty cycle measurement:

Use the duty cycle factor correction factor method per 15.35(c).

Duty cycle=On time/100milliseconds, On time=N1\*L1+N2\*L2+...Nn-1\*Ln-1+Nn\*Ln,  
Where N1 is number of type 1 pulses, L1 is length of type 1 pulse, etc.

## Test Procedure

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

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meter, and the EUT is placed on a turntable, which is 0.8 meter above ground plane for below 1GHz or 1.5 meter for above 1GHz, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

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.

## 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:

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

## Test Data

### Environmental Conditions

<b>Temperature:</b>	22.8~24.7 °C
<b>Relative Humidity:</b>	47~61 %
<b>ATM Pressure:</b>	100~100.3 kPa

*The testing was performed by Anson Su from 2025-06-04 to 2025-06-05 for below 1GHz and Iye Wang on 2025-06-02 for above 1GHz.*

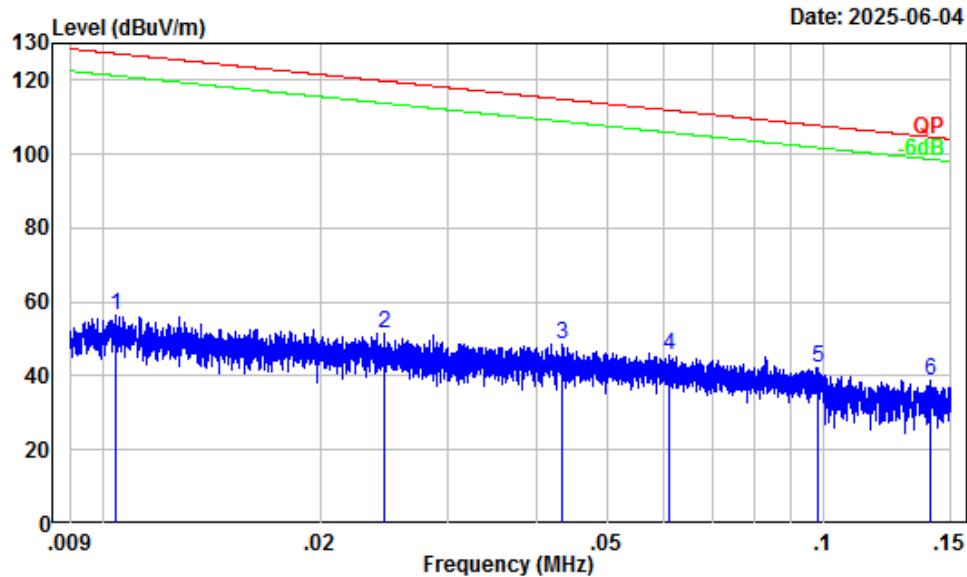
*EUT operation mode: Transmitting*

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

**9 kHz-30MHz: (Maximum output power mode, Low channel)**

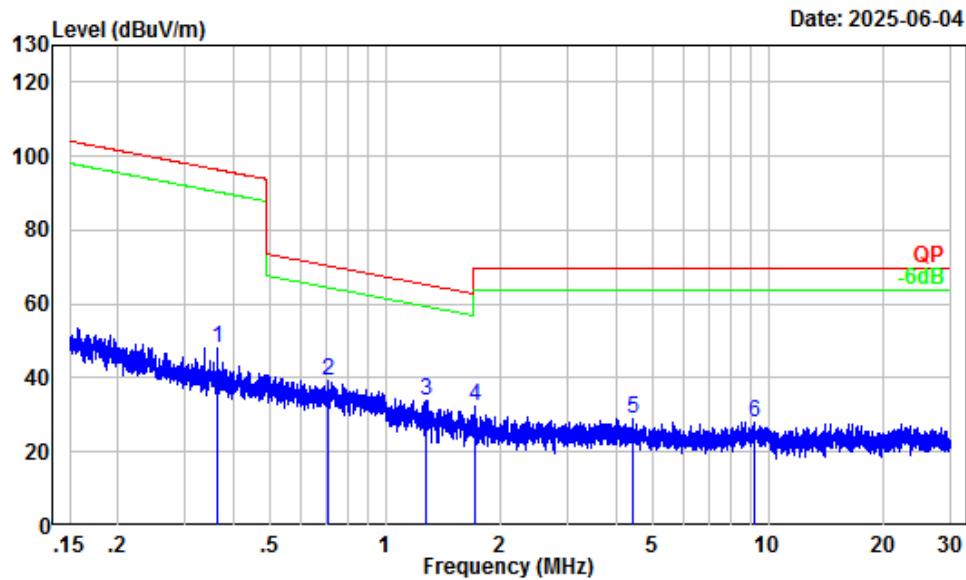
Note: When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.

Parallel (worst case)



Site : Chamber A  
Condition : 3m  
Project Number : 2501T59580E-RF  
Test Mode : Transmitting  
Detector: Peak RBW/VBW: 0.3/1kHz  
Tester : Anson Su

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	0.010	32.22	24.12	56.34	-70.92 Peak
2	0.025	29.53	22.11	51.64	-68.15 Peak
3	0.043	27.11	21.61	48.72	-66.17 Peak
4	0.061	25.30	20.48	45.78	-66.11 Peak
5	0.098	22.13	20.05	42.18	-65.59 Peak
6	0.140	19.61	19.14	38.75	-65.90 Peak

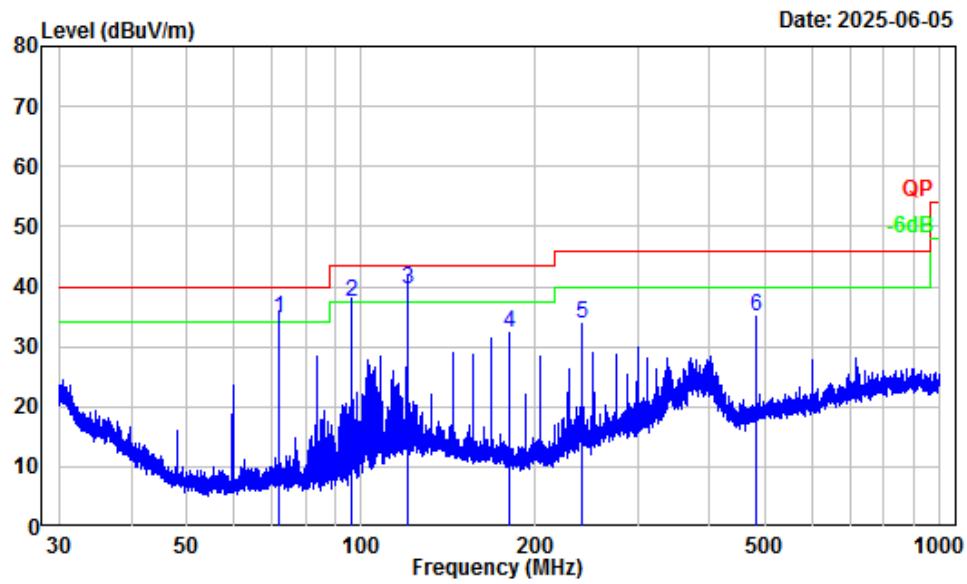


Site : Chamber A  
Condition : 3m  
Project Number : 2501T59580E-RF  
Test Mode : Transmitting  
Detector: Peak RBW/VBW: 10/30kHz  
Tester : Anson Su

	Freq	Factor	Read Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.364	8.98	39.19	48.17	96.38	-48.21	Peak
2	0.711	3.79	35.49	39.28	70.49	-31.21	Peak
3	1.284	0.40	33.63	34.03	65.25	-31.22	Peak
4	1.708	-0.78	33.26	32.48	69.54	-37.06	Peak
5	4.419	-2.74	31.57	28.83	69.54	-40.71	Peak
6	9.223	-2.88	30.71	27.83	69.54	-41.71	Peak

**30MHz-1GHz:** (Maximum output power mode, Low channel)

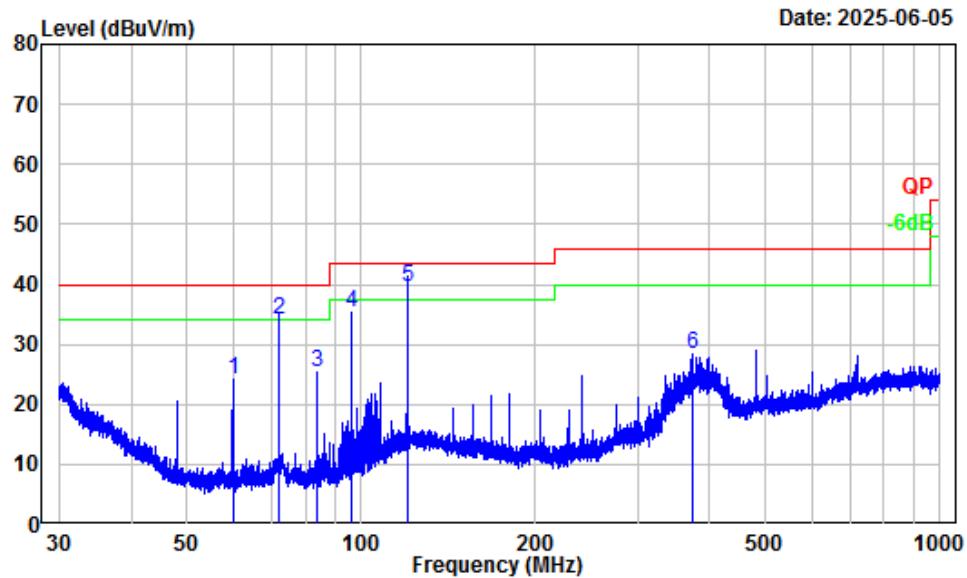
Note: When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.

**Horizontal**

Site : Chamber A  
 Condition : 3m Horizontal  
 Project Number : 2501T59580E-RF  
 Test Mode : Transmitting  
 Detector: Peak RBW/VBW: 100/300kHz  
 Tester : Anson Su

Freq	Factor	Read		Limit		Over Limit	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	71.99	-17.85	52.69	34.84	40.00	-5.16	QP
2	96.01	-17.02	54.60	37.58	43.50	-5.92	QP
3	120.01	-11.45	51.00	39.55	43.50	-3.95	QP
4	180.02	-13.65	45.99	32.34	43.50	-11.16	Peak
5	239.99	-13.32	47.28	33.96	46.00	-12.04	Peak
6	480.11	-6.34	41.33	34.99	46.00	-11.01	Peak

## Vertical



Site : Chamber A  
Condition : 3m Vertical  
Project Number : 2501T59580E-RF  
Test Mode : Transmitting  
Detector: Peak RBW/VBW: 100/300kHz  
Tester : Anson Su

Freq	Factor	Read	Limit	Over	Remark
		Level	Level	Line	
1	59.99	-18.12	42.21	24.09	40.00 -15.91 Peak
2	71.99	-17.85	51.99	34.14	40.00 -5.86 QP
3	84.00	-18.09	43.54	25.45	40.00 -14.55 Peak
4	96.01	-17.02	52.26	35.24	43.50 -8.26 Peak
5	120.01	-11.45	51.00	39.55	43.50 -3.95 QP
6	372.82	-9.39	37.75	28.36	46.00 -17.64 Peak

**Above 1GHz:**

Frequency (MHz)	Reading (dB $\mu$ V)	PK/AV	Polar (H/V)	Factor (dB/m)	Absolute Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
Low Channel							
2402.00	85.56	PK	H	-11.01	74.55	114	-39.45
2402.00	77.68	PK	V	-11.01	66.67	114	-47.33
4804.00	55.25	PK	H	-7.79	47.46	74	-26.54
4804.00	51.35	PK	V	-7.79	43.56	74	-30.44
Middle Channel							
2437.00	85.43	PK	H	-10.93	74.50	114	-39.50
2437.00	76.81	PK	V	-10.93	65.88	114	-48.12
4874.00	52.58	PK	H	-7.61	44.97	74	-29.03
4874.00	51.44	PK	V	-7.61	43.83	74	-30.17
High Channel							
2479.00	83.52	PK	H	-10.96	72.56	114	-41.44
2479.00	79.35	PK	V	-10.96	68.39	114	-45.61
4958.00	52.22	PK	H	-7.56	44.66	74	-29.34
4958.00	51.19	PK	V	-7.56	43.63	74	-30.37

**Note:**

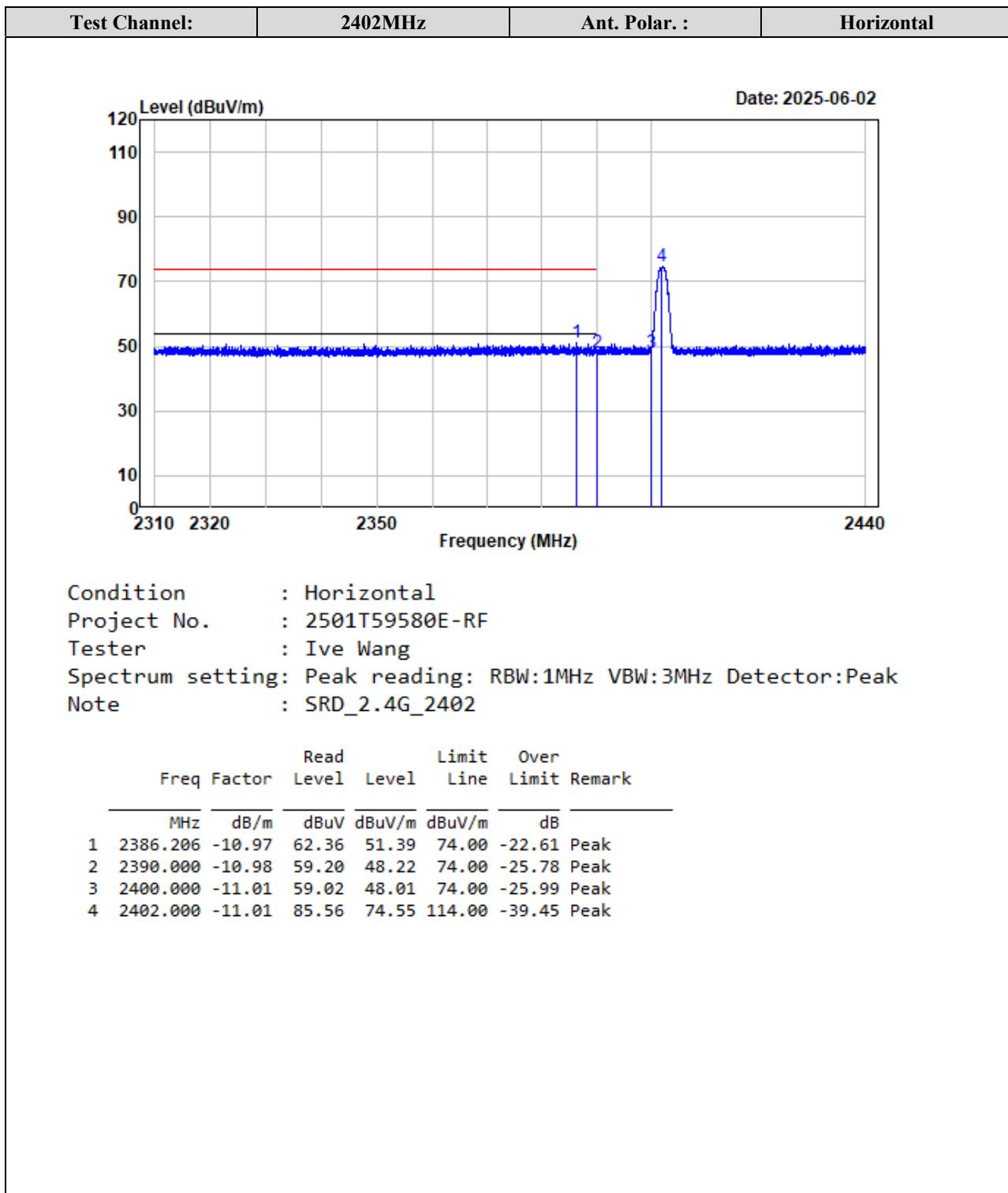
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

Absolute Level (Corrected Amplitude) = Factor + Reading

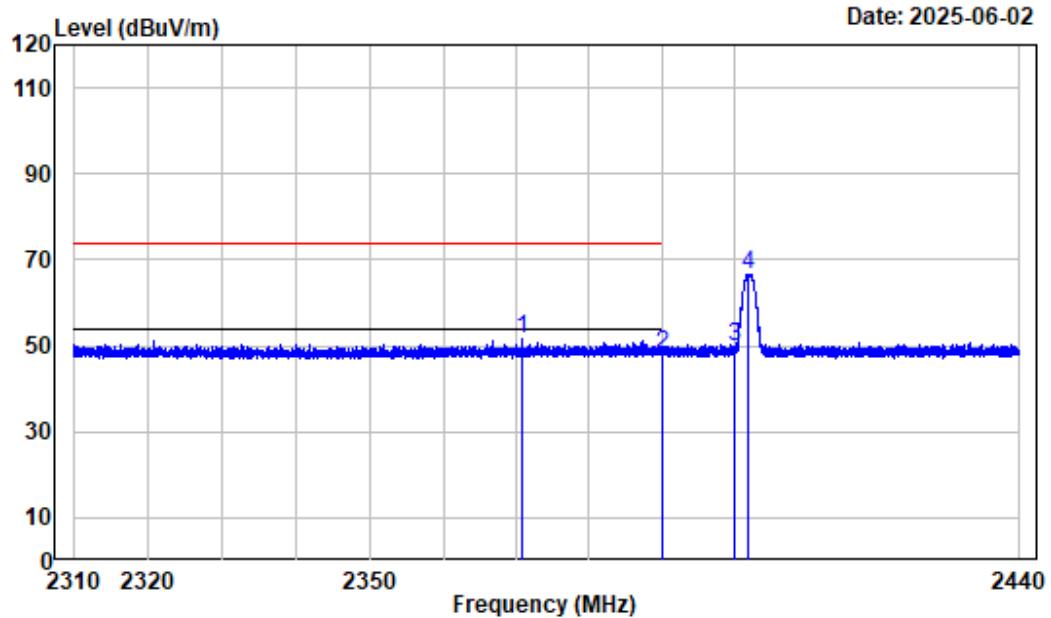
Margin = Absolute Level - Limit

The other spurious emission which is 20dB to the limit or in noise floor level was not recorded.

The test result of peak was less than the limit of average, so just peak values were recorded.

**Test plots for Band Edge Measurements (Radiated):**

Test Channel:	2402MHz	Ant. Polar. :	Vertical
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Condition : Vertical

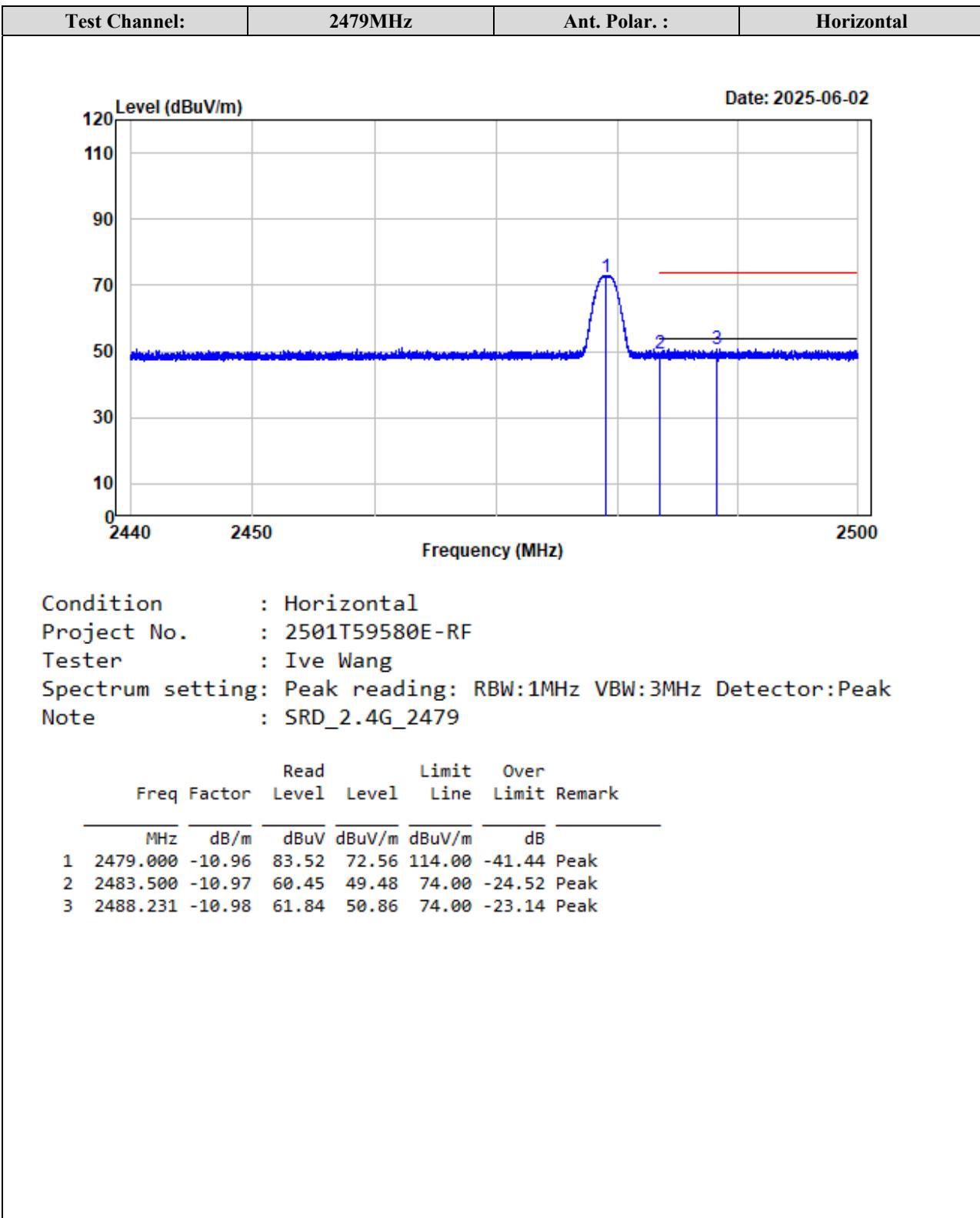
Project No. : 2501T59580E-RF

Tester : Iye Wang

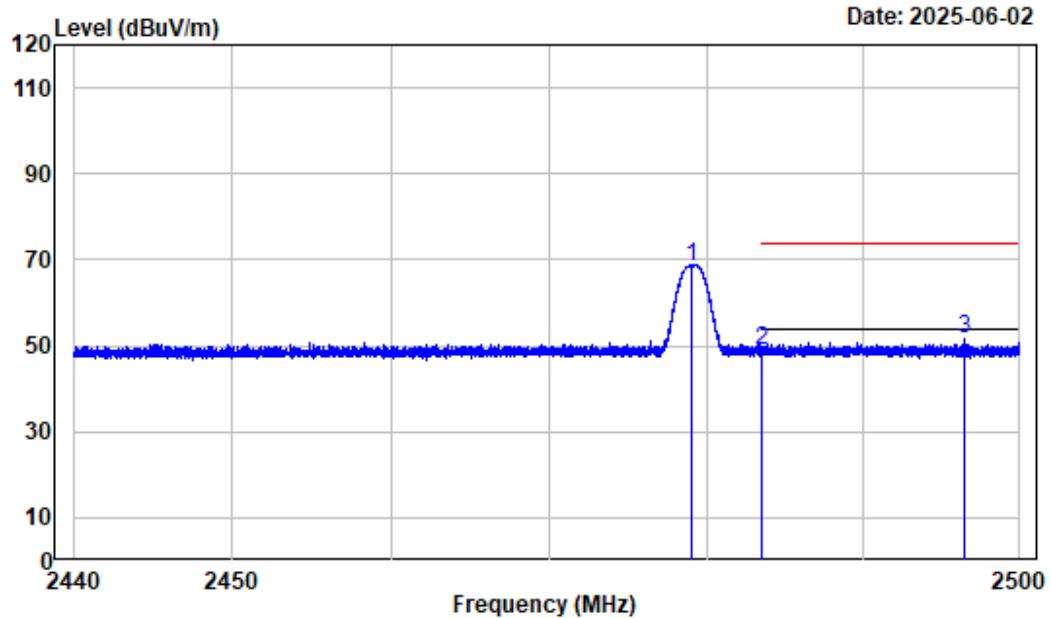
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak

Note : SRD\_2.4G\_2402

Freq Factor	MHz	Read	Limit	Over	Remark
		Level	Level	Line	
1	2370.718	-10.94	62.41	51.47	74.00 -22.53 Peak
2	2390.000	-10.98	59.16	48.18	74.00 -25.82 Peak
3	2400.000	-11.01	60.83	49.82	74.00 -24.18 Peak
4	2402.000	-11.01	77.68	66.67	114.00 -47.33 Peak

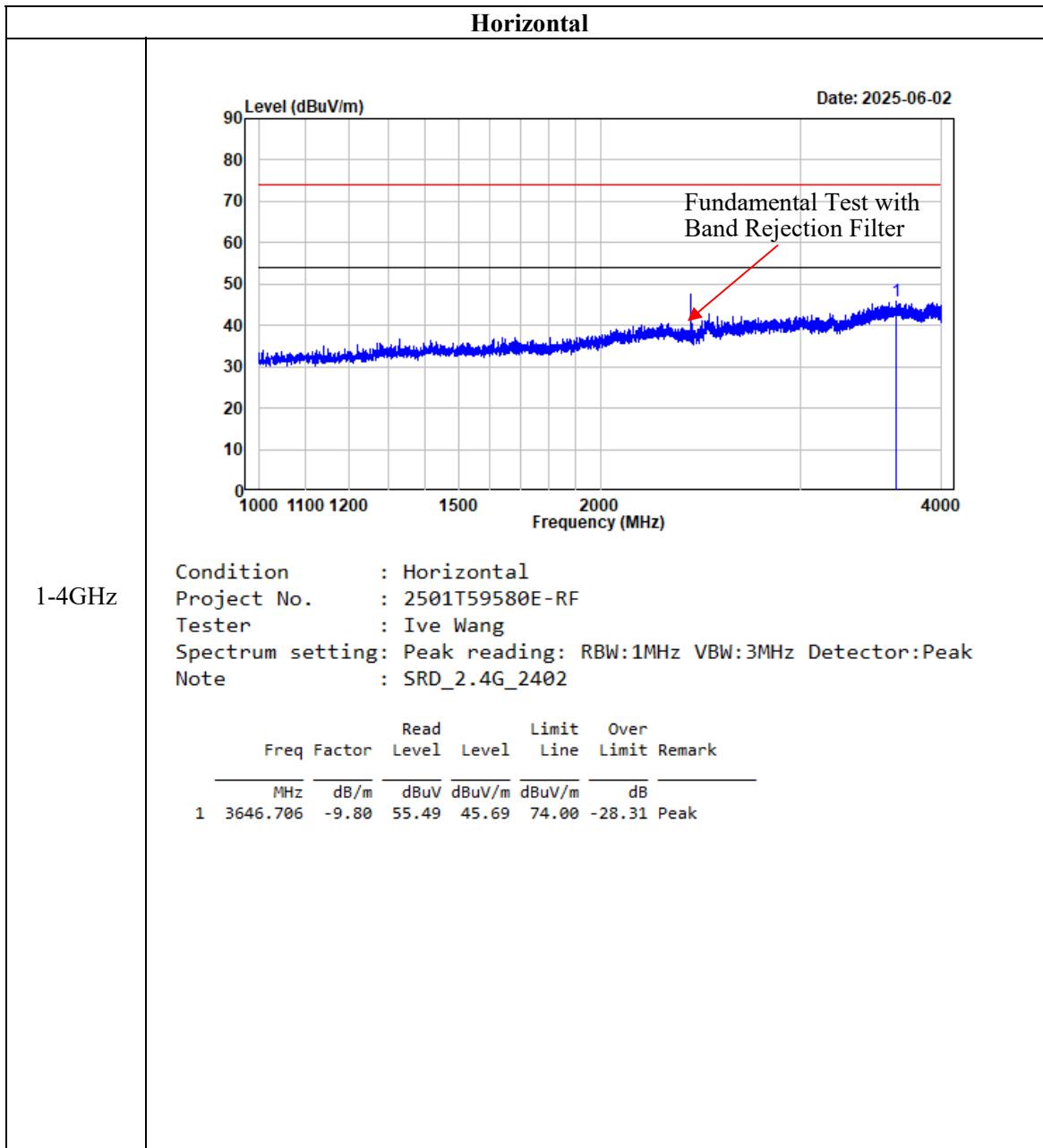


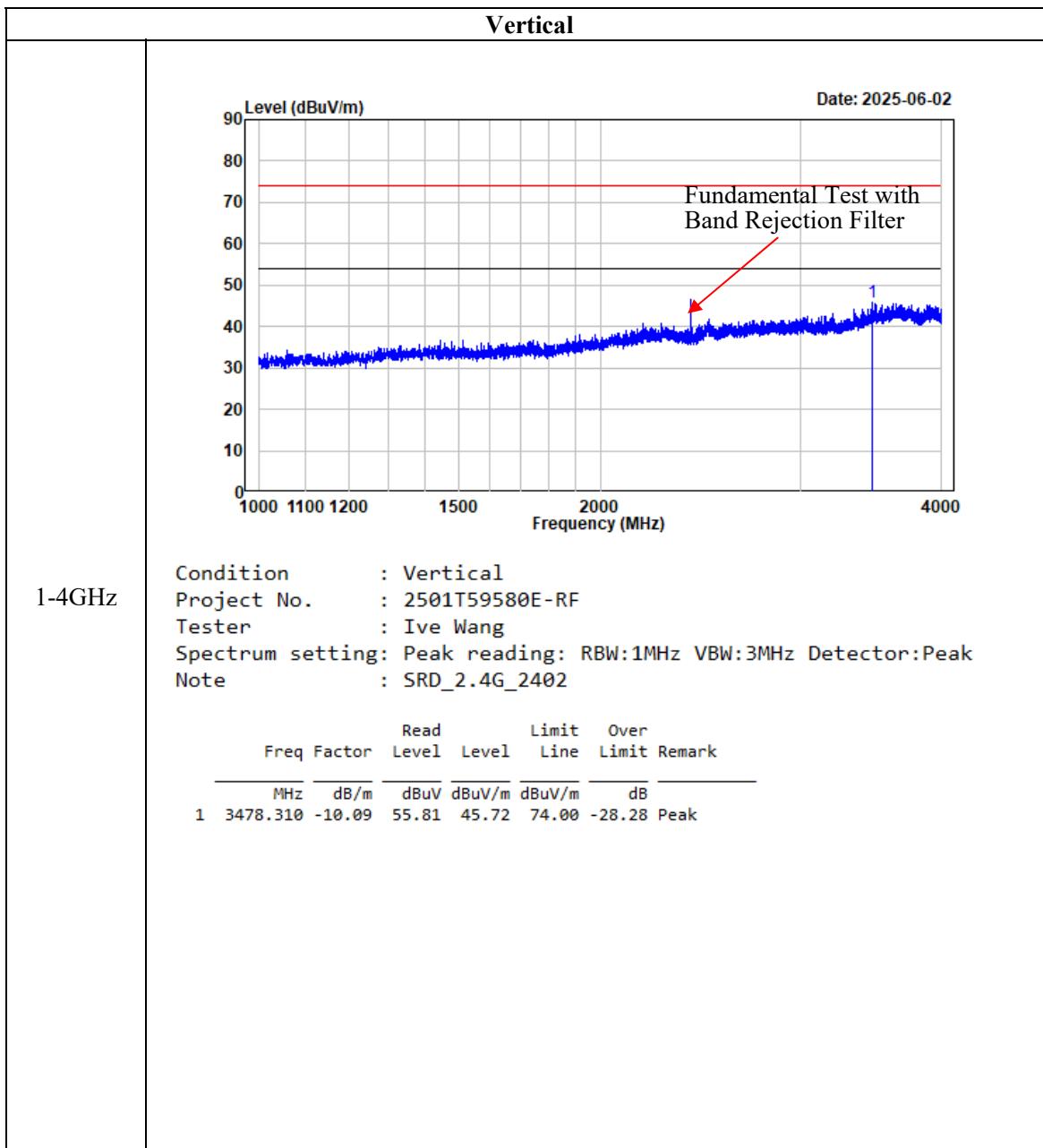
Test Channel:	2479MHz	Ant. Polar.:	Vertical
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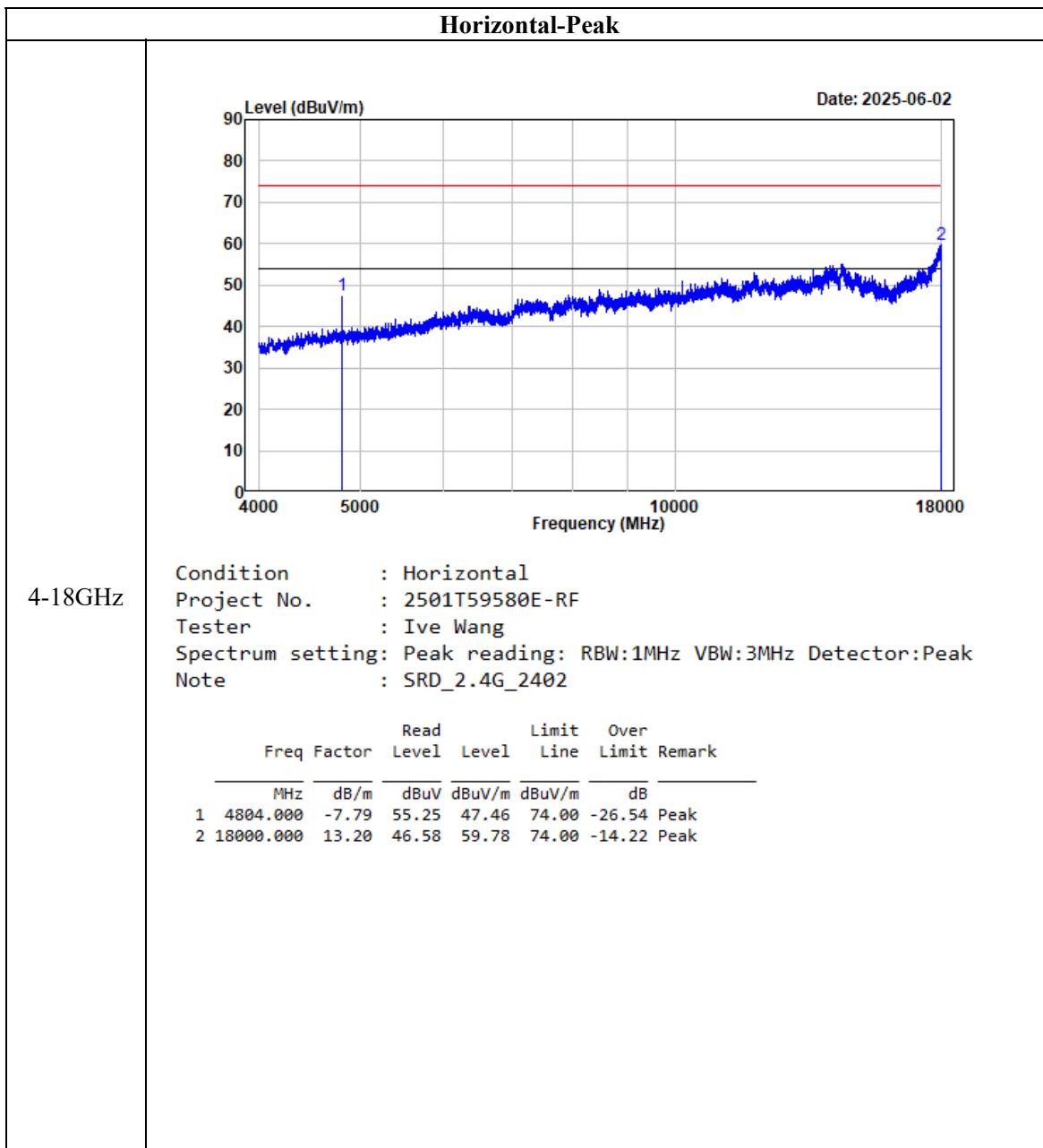


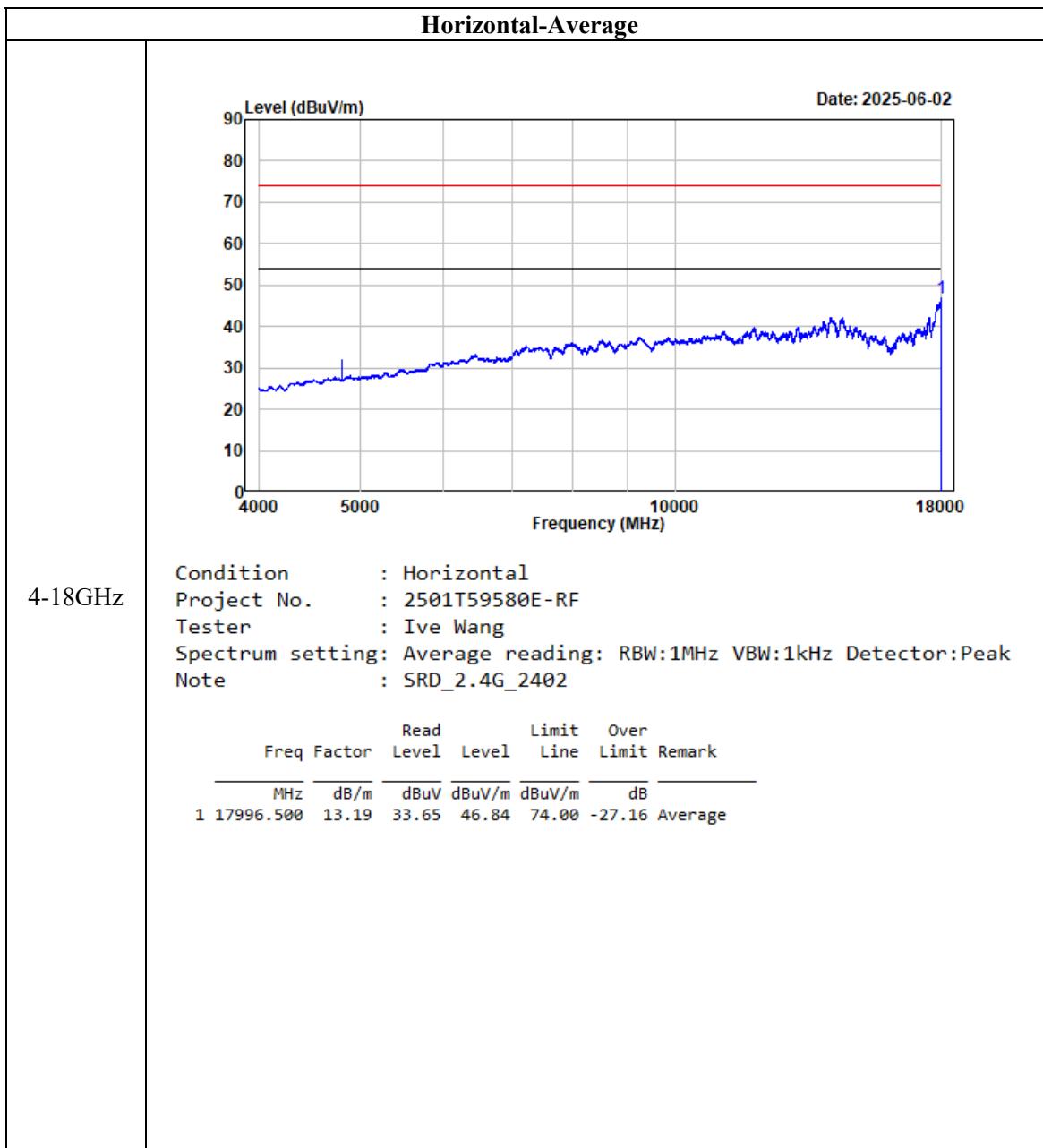
Condition : Vertical  
Project No. : 2501T59580E-RF  
Tester : Iye Wang  
Spectrum setting: Peak reading: RBW:1MHz VBW:3MHz Detector:Peak  
Note : SRD\_2.4G\_2479

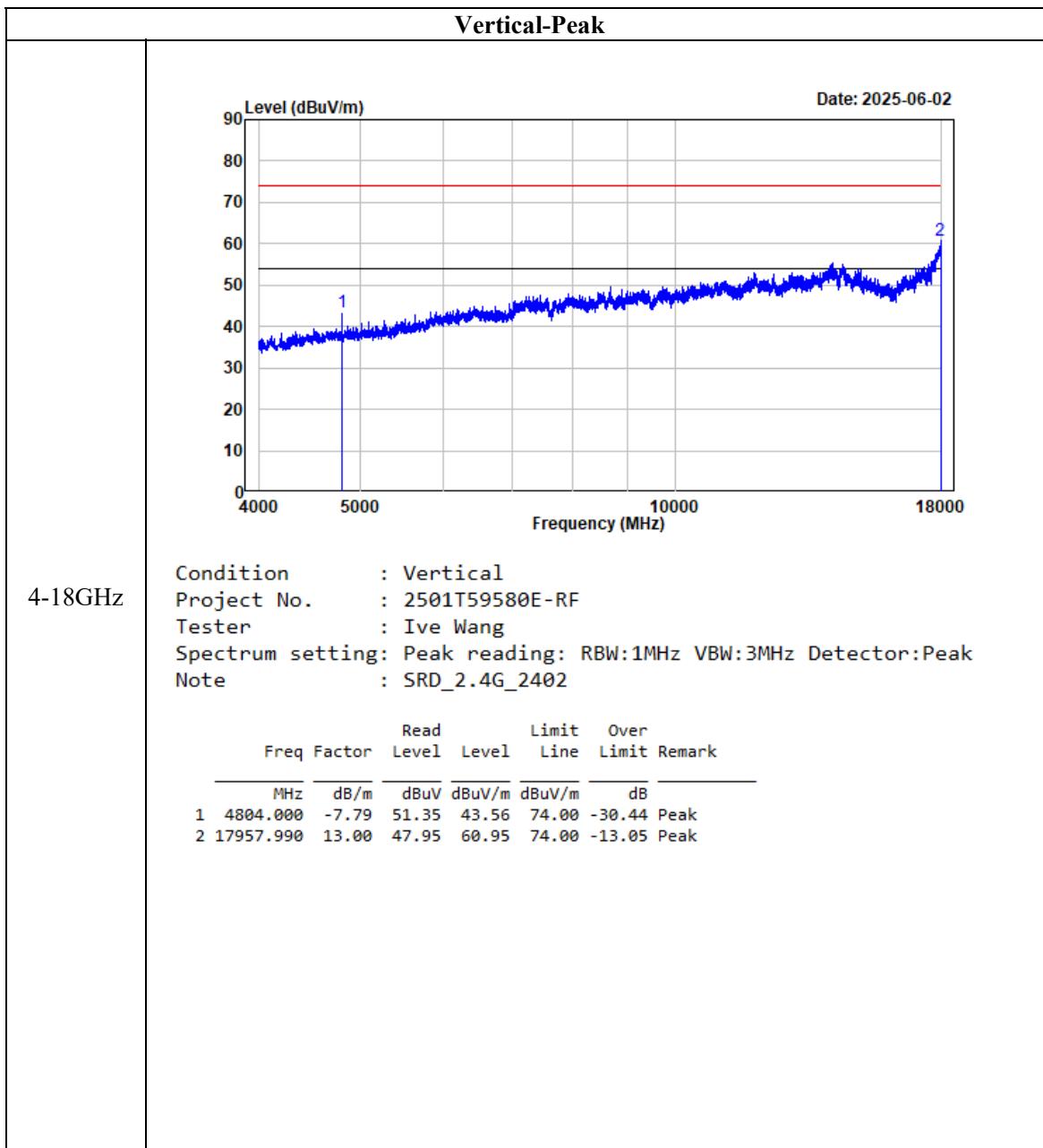
Freq Factor	Read		Limit		Over	Remark
	MHz	dB/m	dBuV	dBuV/m		
1	2479.000	-10.96	79.35	68.39	114.00	-45.61 Peak
2	2483.500	-10.97	59.84	48.87	74.00	-25.13 Peak
3	2496.467	-10.99	62.41	51.42	74.00	-22.58 Peak

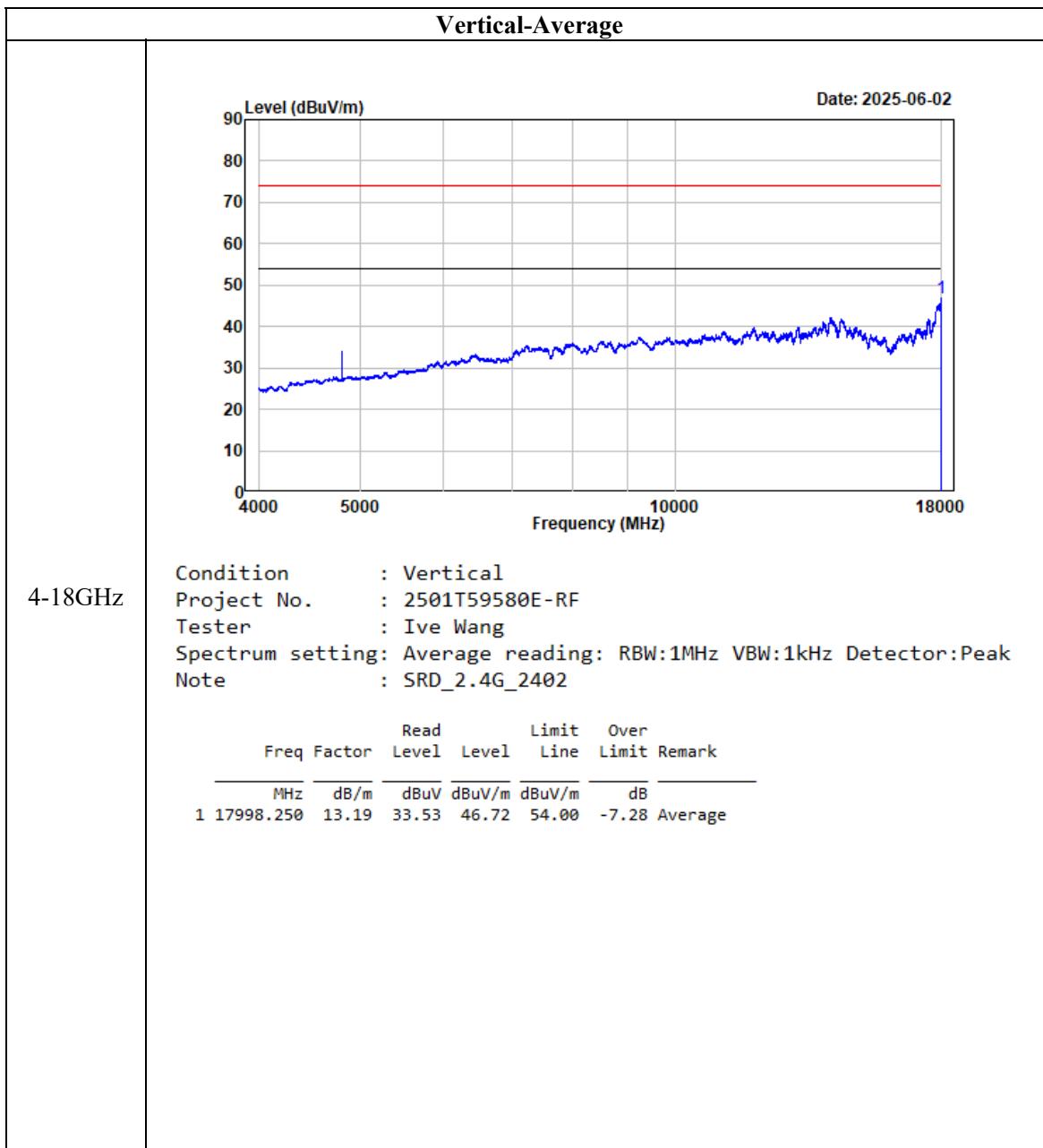
**Listed with the worst harmonic margin test plot:**

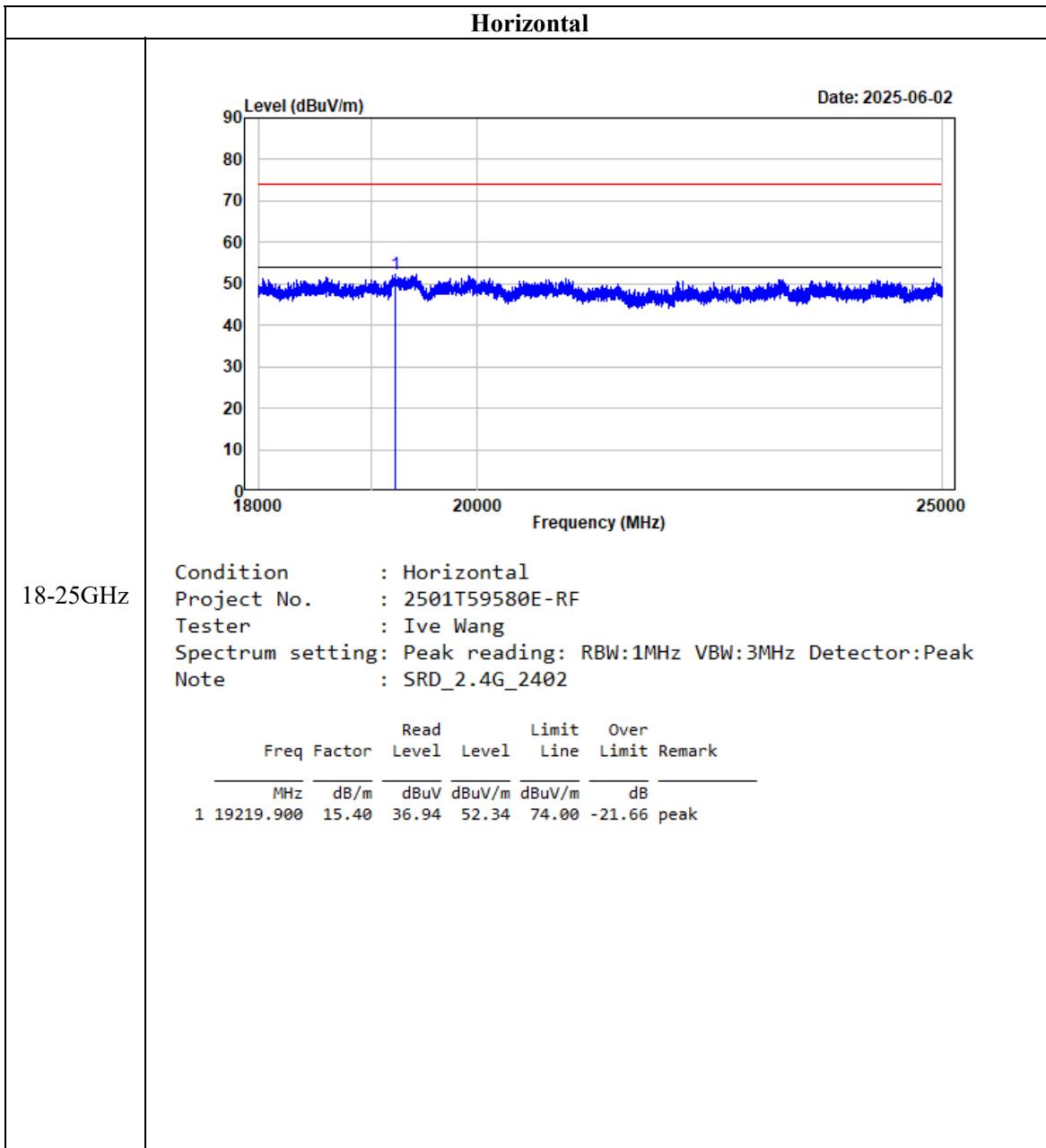


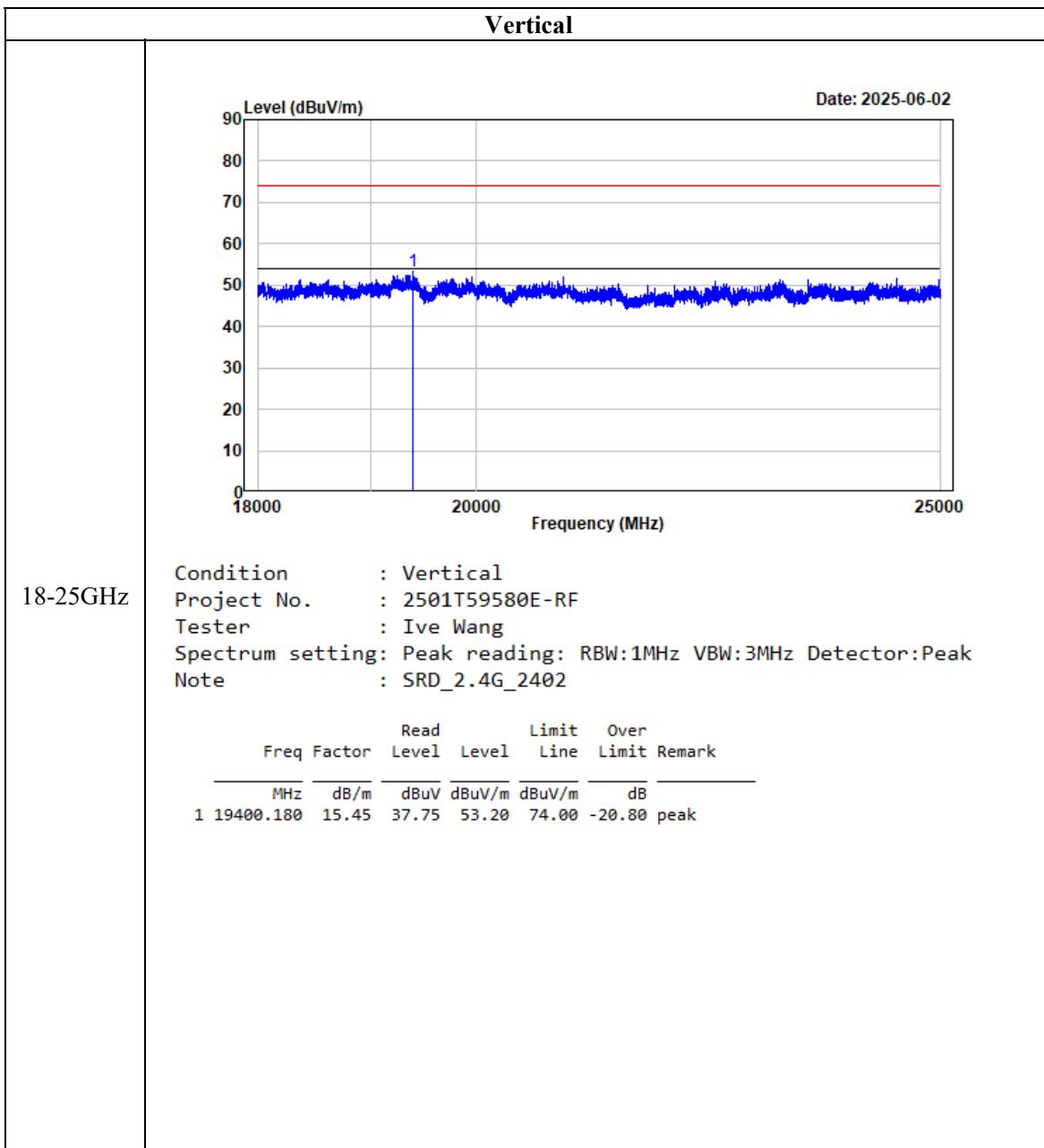












## FCC§15.215(c) - 20dB EMISSION BANDWIDTH

### Applicable Standard

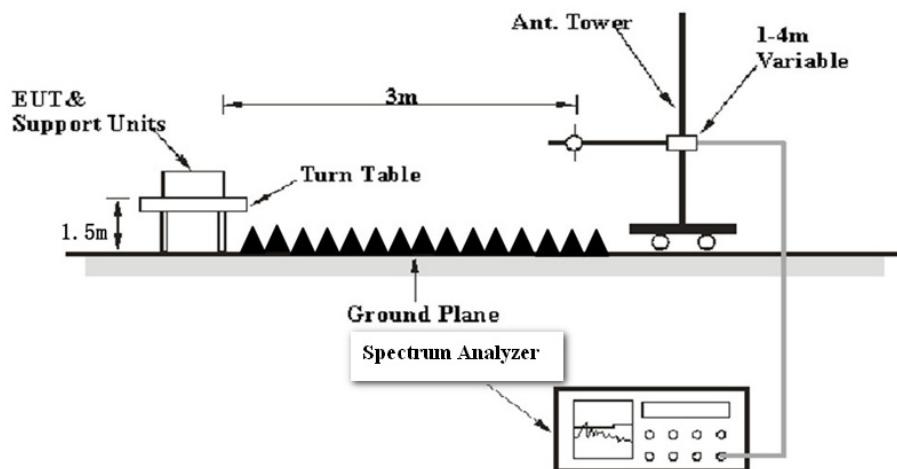
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

### Test Procedure

Test Method: ANSI C63.10-2013 Clause 7.8.7 & Clause 6.9.2

The following conditions shall be observed for measuring the occupied bandwidth and 20 dB bandwidth:

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.
- The detector of the spectrum analyzer shall be set to “Sample”. However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or “Max Hold”) may be necessary to determine the occupied / 20 dB bandwidth if the device is not transmitting continuously.
- The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW/ 20dB bandwidth and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement.



## Test Data

### Environmental Conditions

<b>Temperature:</b>	22.8 °C
<b>Relative Humidity:</b>	61 %
<b>ATM Pressure:</b>	100.3 kPa

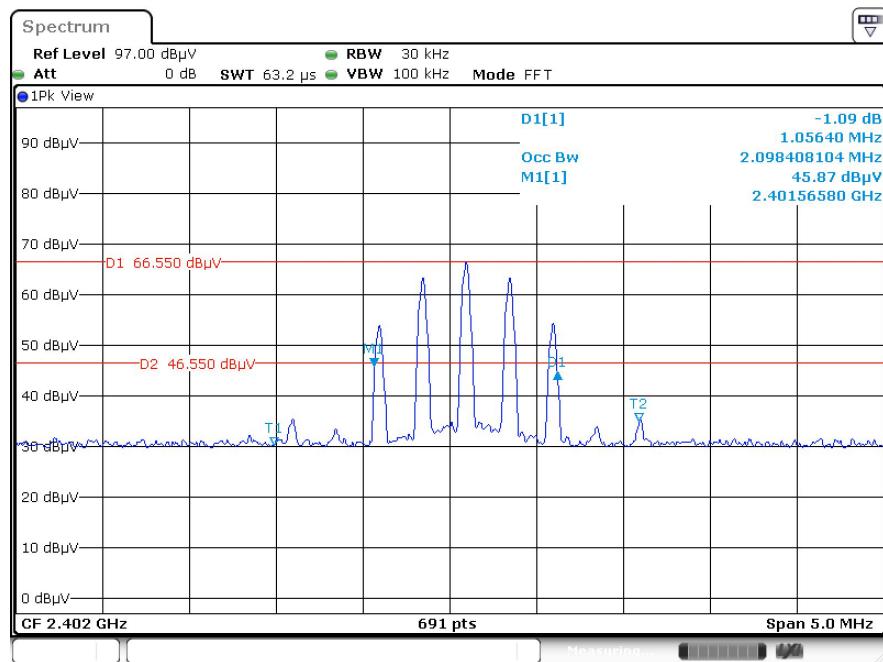
*The testing was performed by Ive Wang on 2025-06-17.*

*EUT operation mode: Transmitting*

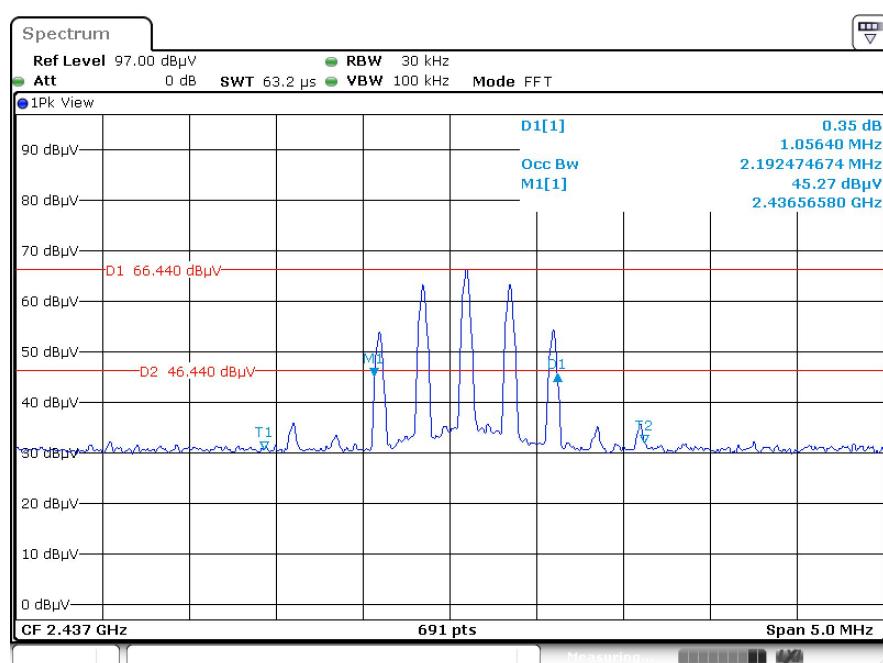
*Please refer to the following table and plots.*

Channel	Frequency (MHz)	20dB Bandwidth (MHz)
Low	2402	1.056
Middle	2437	1.056
High	2479	1.056

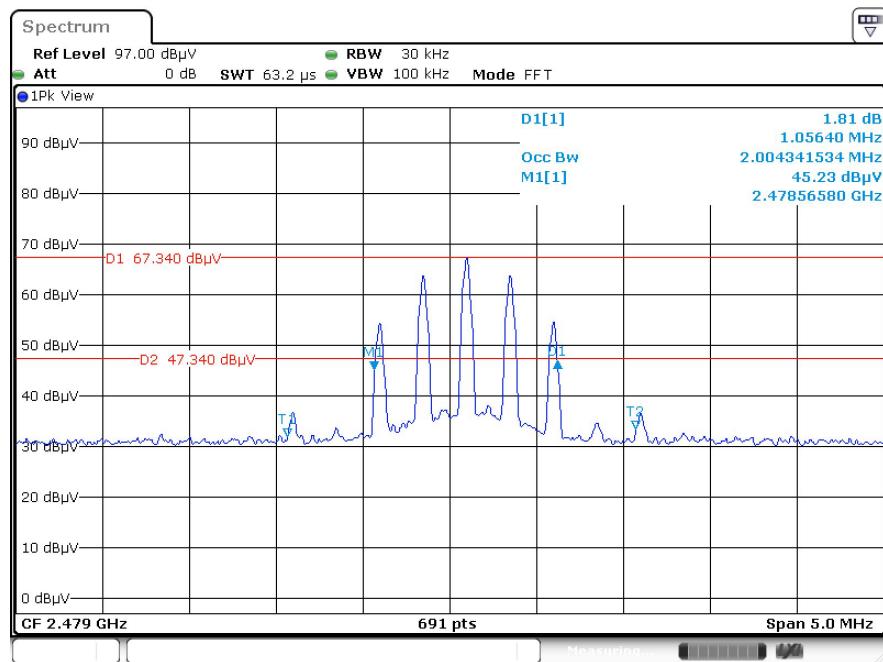
## Low channel



## Middle Channel



## High Channel



ProjectNo.:2501T59580E-RF Tester:Ive Wang  
Date: 17.JUN.2025 22:35:18

## **EUT PHOTOGRAPHS**

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Please refer to the attachment 2501T59580E-RF External photo and 2501T59580E-RF Internal photo.

## **TEST SETUP PHOTOGRAPHS**

Please refer to the attachment 2501T59580E-RF Test Setup photo.

**\*\*\*\*\* END OF REPORT \*\*\*\*\***