

# TEST REPORT

Applicant Name : Feit Electric Company  
Address : 4901 Gregg Road, Pico Rivera, California, United States 90660  
Report Number : 2504V18548E-RF-00A  
FCC ID: SYW-AJC8KMMR5KHD

## Test Standard (s)

FCC PART 15.249

## Sample Description

Product Type: LED Luminaire  
Model No.: ADJC8KMMR5KHD, HLLEDGL-80W-MM  
Trade Mark: Commercial Electric  
Date Received: 2025-07-22  
Date of Test: 2025-07-31 to 2025-08-12  
Report Date: 2025-08-13

Test Result:	The EUT complied with the standards above.
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### Prepared and Checked By:



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Matt Liang  
EMC Engineer

### Approved By:



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Bob.Liao  
EMC Engineer

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Shenzhen Accurate Technology Co., Ltd.

Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Tel: +86 755-26503290

Web: [www.atc-lab.com](http://www.atc-lab.com)

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## DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504V18548E-RF-00A	Original Report	2025-08-13

## GENERAL INFORMATION

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

Product	LED Luminaires
Tested Model	ADJC8KMMR5KHD
Multiple Model	HLLEDGL-80W-MM
Model Difference <sup>#</sup>	The above models only differ in the model name. Please refer to DOS letter for details. The applicant provided model "ADJC8KMMR5KHD" for testing.
Frequency Range	SRD: 5730MHz~5870MHz(141CH)
Maximum E-Field Strength (Peak)	85.16 BuV/m@3m
Modulation Technique	CW
Antenna Specification <sup>#</sup>	Built-in Antenna: 6.06dBi (It is provided by the applicant.)
Voltage Range <sup>#</sup>	AC 120V/60Hz
Sample Serial Number	386U-1 (Assigned by ATC, Shenzhen)
Sample/EUT Status	Good condition

### Objective

This type approval 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 C63.10-2020, American National Standard of Procedures for Compliant Testing of Unlicensed Wireless Devices.

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method.

## Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Accredited by American Association for Laboratory Accreditation (A2LA). The Certificate Number is 4297.01.

## Measurement Uncertainty

Parameter	Uncertainty	
Occupied Channel Bandwidth	5 %	
RF output power, conducted	0.3 dB	
Unwanted Emission, conducted	1.2 dB	
AC Power Lines Conducted Emissions	2.7 dB	
Emissions, Radiated	9kHz - 30MHz	2.1 dB
	30MHz - 1GHz	4.3 dB
	1GHz - 18GHz	4.9 dB
	18GHz - 26.5GHz	5.2 dB
	26.5GHz - 40GHz	4.6 dB
Temperature	1 °C	
Humidity	7 %	
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.*

## SYSTEM TEST CONFIGURATION

### Description of Test Configuration

The system was configured for testing by manufacturer.

Frequency List<sup>#</sup>

Channel	Frequency (MHz)						
0	5730	30	5760	60	5790	90	5820
1	5731	31	5761	61	5791	91	5821
2	5732	32	5762	62	5792	92	5822
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
27	5757	57	5787	87	5817	138	5868
28	5758	58	5788	88	5818	139	5869
29	5759	59	5789	89	5819	140	5870

Test Frequency<sup>#</sup>: 5730MHz, 5800MHz, 5870MHz.

### EUT Exercise Software and Power Level<sup>#</sup>

No software was used during testing and power level setting was default.

### Special Accessories

No special accessory.

### Equipment Modifications

No modification was made to the EUT tested.

### Support Equipment List and Details

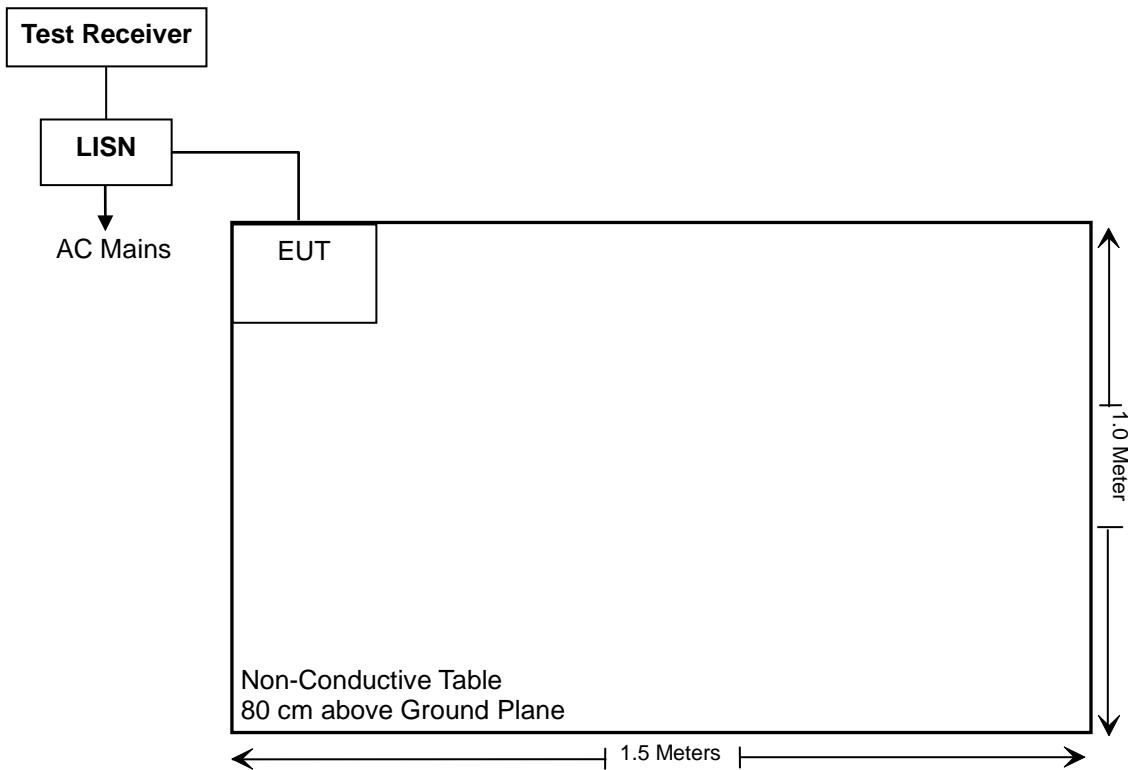
Manufacturer	Description	Model	Serial Number
/	/	/	/

### External I/O Cable

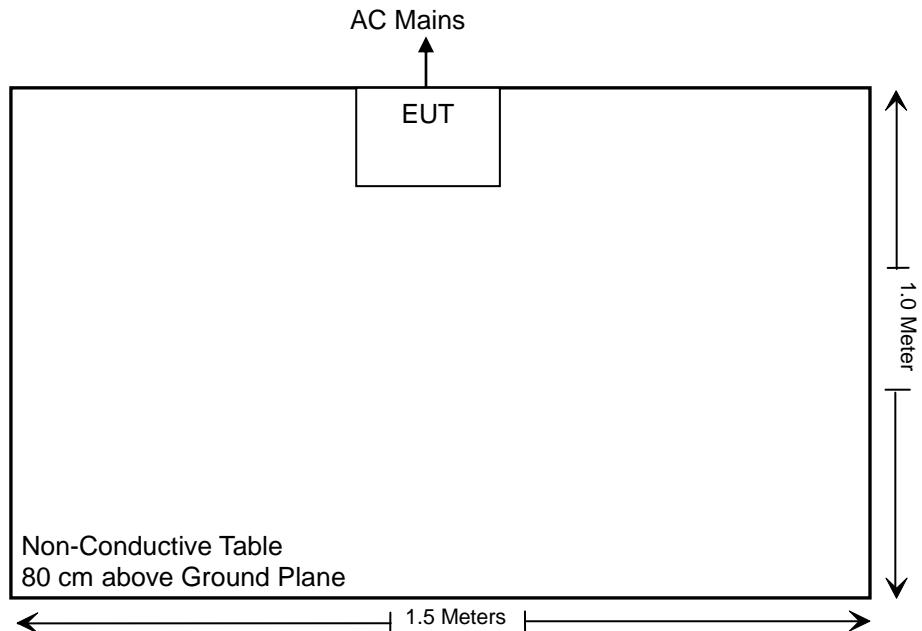
Cable Description	Shielding Type	Length (m)	From Port	To
AC Cable	No	1.70	1.70	1.70

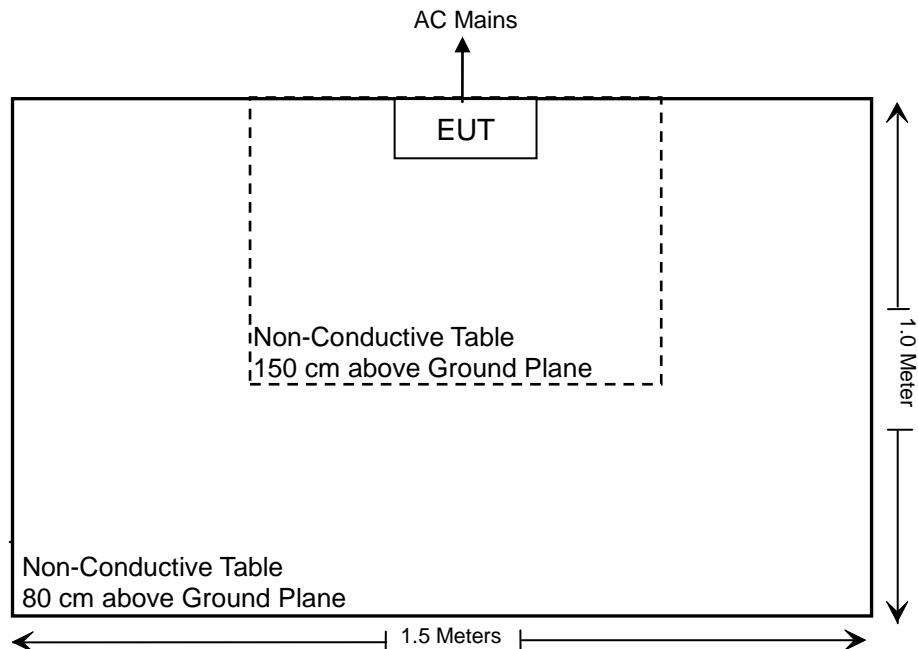
## Block Diagram of Test Setup

For Conducted Emission:



For Radiated Emission Below 1GHz:



**For Radiated Emission Above 1GHz:**

## SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207(a)	Conduction Emissions	Compliance
15.205, §15.209, §15.249(d)	Radiated Emissions & Outside of Band Emission	Compliance
§15.215 (c)	20dB Bandwidth	Compliance

Note: For Radiated Spurious Emissions, after pre-scan in the X, Y and Z axes of orientation, the worst case as setup photos was recorded.

## TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Conducted Emissions Test</b>					
Rohde & Schwarz	EMI Test Receiver	ESCI	100784	2024/11/08	2025/11/07
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2024/11/08	2025/11/07
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2024/10/08	2025/10/07
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	100312	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.17	N0350	2025/05/30	2026/05/29
Test Software: e3 191218 (V9)					
<b>Radiation Method Test</b>					
Rohde & Schwarz	Test Receiver	ESR	102725	2024/11/08	2025/11/07
SONOMA INSTRUMENT	Amplifier	310N	186131	2025/03/26	2026/03/25
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2024/08/08	2027/08/07
Unknown	RF Coaxial Cable	No.12	N040	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.13	N300	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.14	N800	2025/05/30	2026/05/29
BACL	LOOP ANTENNA	1313-1A	3110711	2024/01/16	2027/01/15
Rohde & Schwarz	Spectrum Analyzer	FSV40	101949	2024/10/08	2025/10/07
Decentest	Filter Switch Unit	DT7220FSU	DQ77927	2024/10/08	2025/10/07
Decentest	Multiplex Switch Test Control Set	DT7220CSU	DQ77924	2024/10/08	2025/10/07
A.H. Systems, inc.	Preamplifier	PAM-0118	226	2025/03/20	2026/03/19
Schwarzbeck	Horn Antenna	BBHA9120D	837	2023/02/22	2026/02/21
Unknown	RF Coaxial Cable	No.10	N050	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.11	N1000	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.19	N500	2025/05/30	2026/05/29
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2023/12/12	2026/12/11
BACL	Amplifier	BACL-1313-A1840	4012521	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.15	N600	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.16	N650	2025/05/30	2026/05/29
Test Software: e3 191218 (V9)					

**\* Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

## FCC§15.203-ANTENNA REQUIREMENT

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### 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.

### Antenna Connector Construction

The EUT has one internal antenna which was permanently attached, fulfill the requirement of this section. Please refer to the EUT photos.

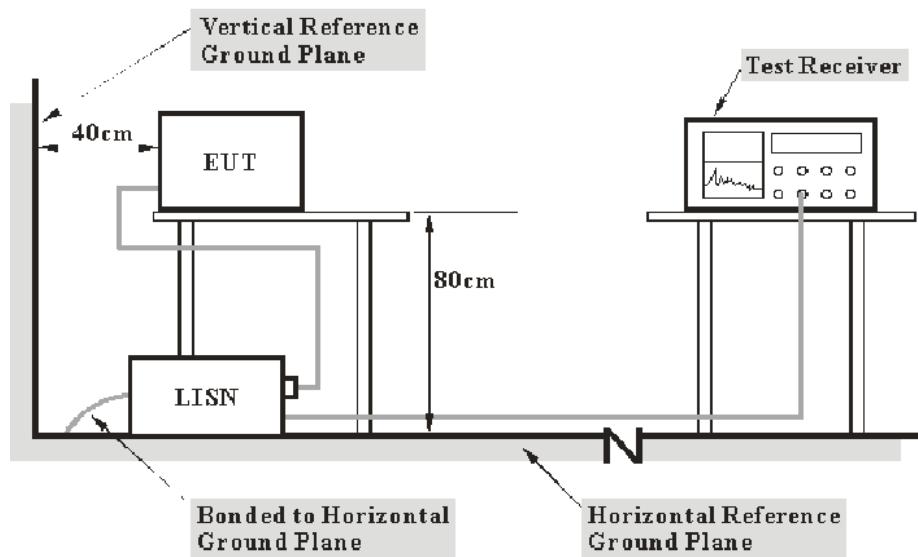
**Result:** Compliance.

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

### Applicable Standard

FCC §15.207(a)

### EUT Setup



**Note:**

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

The measurement procedure of EUT setup is according with ANSI C63.10-2020. 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	IF B/W
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.

## Calculation

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

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + 10\text{dB Attenuation(Limiter)}$$

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:

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

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

## Test Data

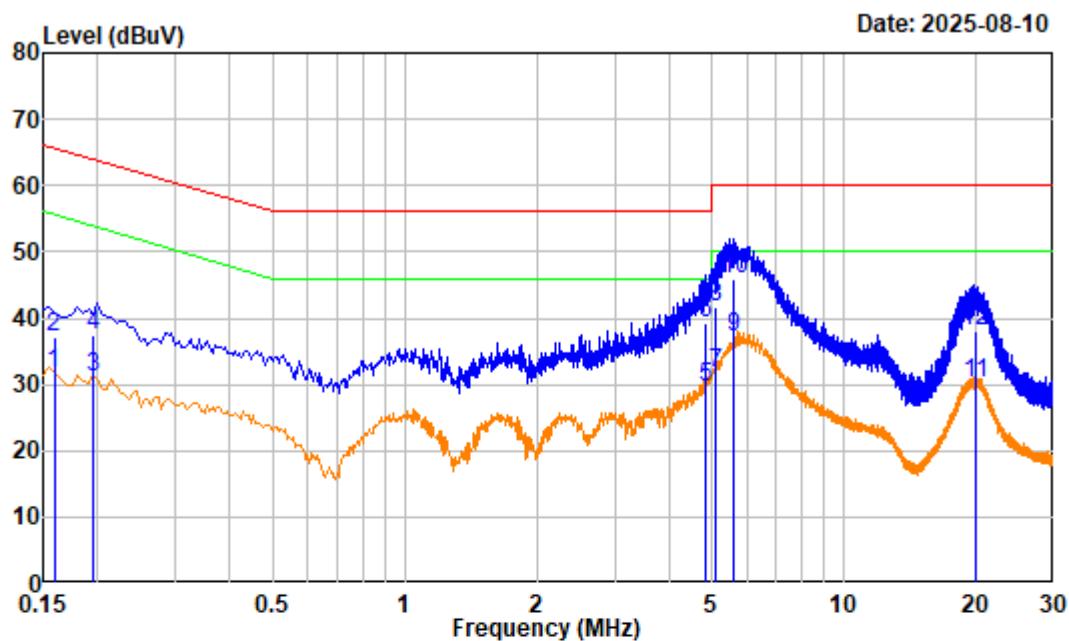
### Environmental Conditions

Temperature:	24.9°C
Relative Humidity:	47%
ATM Pressure:	99.3kPa
Test Engineer:	Jason Fan
Test Date:	2025-08-10
EUT Operation Mode:	Transmitting

**Test Result:** Compliance, please refer to the below data.

*Note: The maximum E-Field strength channel: Middle Channel was tested.*

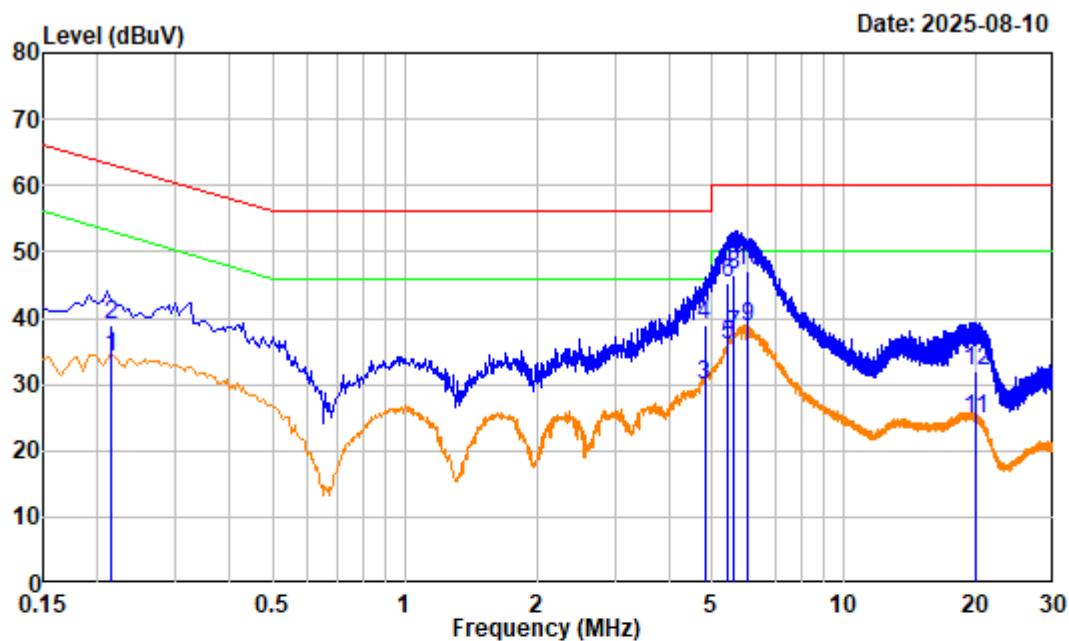
## AC 120V/60Hz, Line:



Site : Shielding Room  
 Condition : Line  
 Project No. : 2504V18548E-RF Tester: Jason Fan  
 Test Mode : Transmitting  
 Receiver Setting: IF B/W 9kHz PK/AV

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB	dBuV	dBuV		
1	0.159	19.92	11.87	31.79	55.52	-23.73	Average
2	0.159	19.92	17.13	37.05	65.52	-28.47	QP
3	0.194	19.95	11.04	30.99	53.84	-22.85	Average
4	0.194	19.95	17.43	37.38	63.84	-26.46	QP
5	4.835	21.68	7.82	29.50	46.00	-16.50	Average
6	4.835	21.68	17.65	39.33	56.00	-16.67	QP
7	5.111	21.73	9.83	31.56	50.00	-18.44	Average
8	5.111	21.73	20.01	41.74	60.00	-18.26	QP
9	5.625	21.83	15.39	37.22	50.00	-12.78	Average
10	5.625	21.83	23.99	45.82	60.00	-14.18	QP
11	19.836	23.94	6.39	30.33	50.00	-19.67	Average
12	19.836	23.94	14.18	38.12	60.00	-21.88	QP

## AC 120V/60Hz, Neutral:



Site : Shielding Room  
 Condition : neutral  
 Project No. : 2504V18548E-RF Tester: Jason Fan  
 Test Mode : Transmitting  
 Receiver Setting: IF B/W 9kHz PK/AV

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB	dBuV	dBuV		
1	0.215	19.92	14.07	33.99	53.01	-19.02	Average
2	0.215	19.92	19.14	39.06	63.01	-23.95	QP
3	4.809	21.64	8.33	29.97	46.00	-16.03	Average
4	4.809	21.64	17.32	38.96	56.00	-17.04	QP
5	5.427	21.82	14.01	35.83	50.00	-14.17	Average
6	5.427	21.82	23.56	45.38	60.00	-14.62	QP
7	5.580	21.86	15.57	37.43	50.00	-12.57	Average
8	5.580	21.86	24.68	46.54	60.00	-13.46	QP
9	6.053	21.99	16.52	38.51	50.00	-11.49	Average
10	6.053	21.99	25.04	47.03	60.00	-12.97	QP
11	19.846	24.01	0.69	24.70	50.00	-25.30	Average
12	19.846	24.01	7.96	31.97	60.00	-28.03	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:

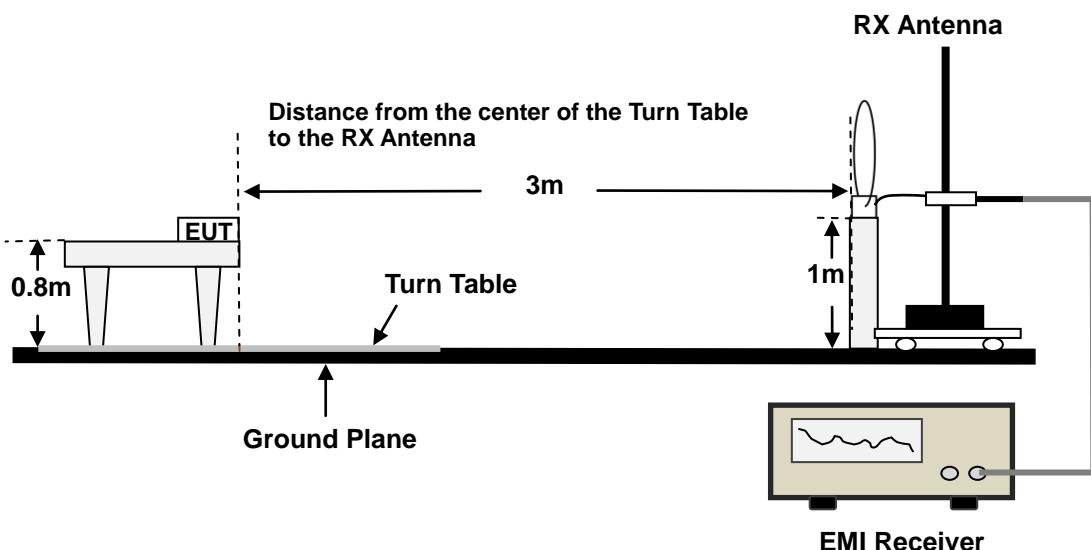
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

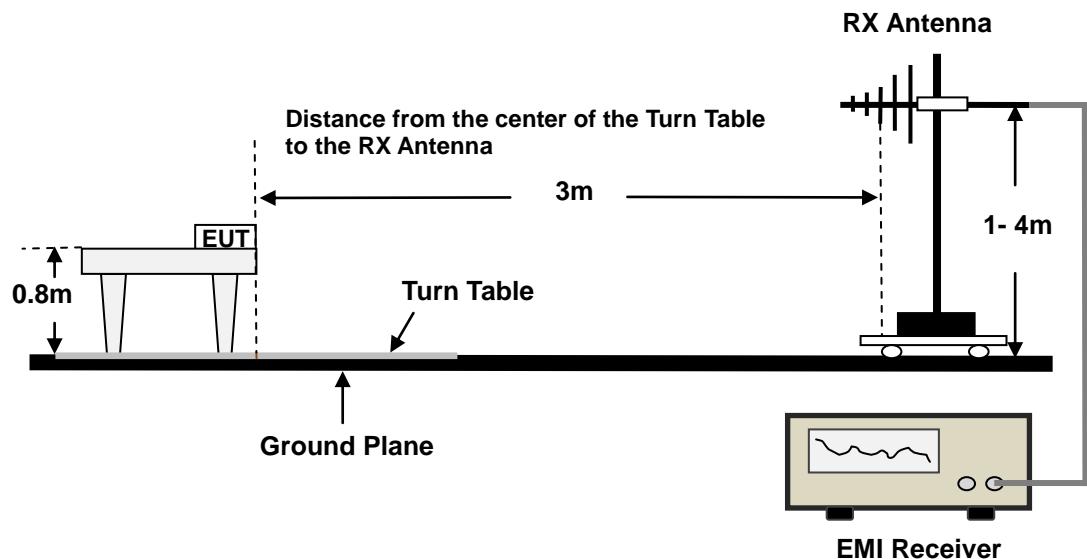
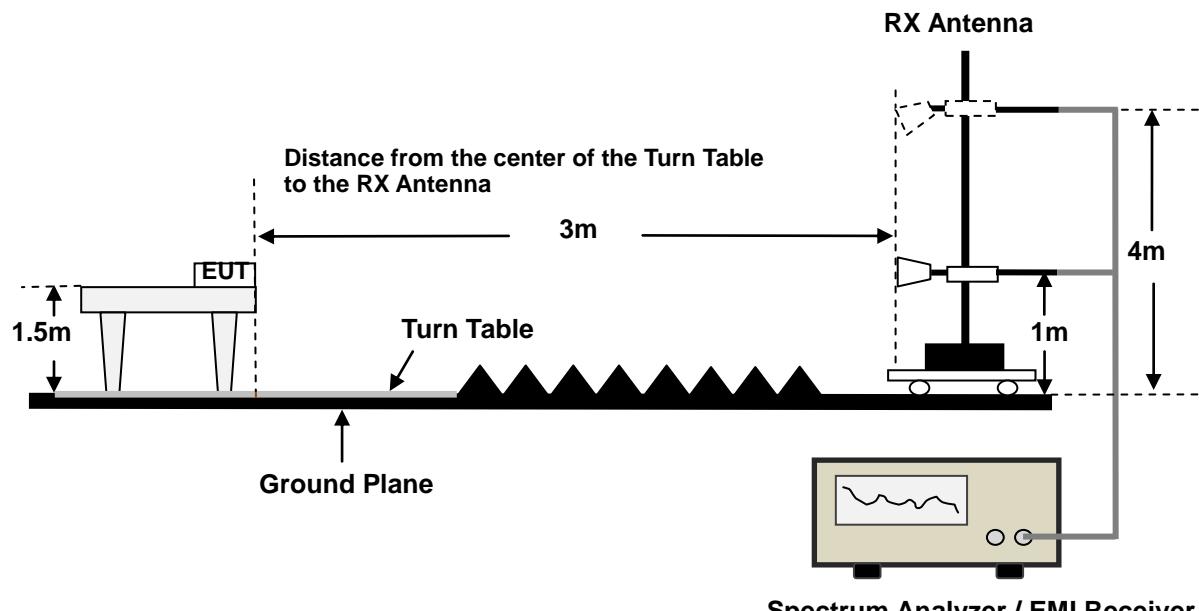
As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

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

9kHz - 30MHz:



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

The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209/15.205 and FCC 15.249 limits.

## EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9kHz to 40GHz.

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

9kHz - 1000MHz:

Frequency Range	Measurement	RBW	Video B/W	IF B/W	Detector
9kHz - 150kHz	PK	0.3kHz	1kHz	/	PK
	QP/AV	/	/	200Hz	QP/AV
150kHz - 30MHz	PK	10kHz	30kHz	/	PK
	QP/AV	/	/	9kHz	QP/AV
30MHz - 1000MHz	PK	100kHz	300kHz	/	PK
	QP	/	/	120kHz	QP

1GHz -40GHz:

Pre-scan:

Measurement	Detector	RBW	Video B/W
PK	Peak	1MHz	3MHz
Ave.	Peak	1MHz	3kHz

Final measurement for emission identified during the pre-scan:

Measurement	Detector	RBW	Video B/W
PK	Peak	1MHz	3MHz
Ave.	Peak	1MHz	10Hz

Note 1: The 6.6GHz-18GHz testing use high-pass filter.

Note 2: The band edge testing use 10dB attenuator.

Note 3: The filters and attenuators are all integrated within the filter switch unit.

## Test Procedure

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

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

According to ANSI C63.10-2020, 9.2: For field strength measurements made at other than the distance specified by the limit, 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).

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

where

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

Note 1: If the maximized peak measured value is under the QP/Average limit by more than 6dB, then it is unnecessary to perform an QP/Average measurement.

Note 2: For above 1GHz, the test result of peak was 20dB below to the limit of peak, which can be compliant to the average limit, so just peak value was recorded.

## 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:

$$\text{Over Limit/Margin} = \text{Level} / \text{Corrected Amplitude} - \text{Limit}$$

$$\text{Level} / \text{Corrected Amplitude} = \text{Read Level} + \text{Factor}$$

## Test Data

### 9kHz-1GHz

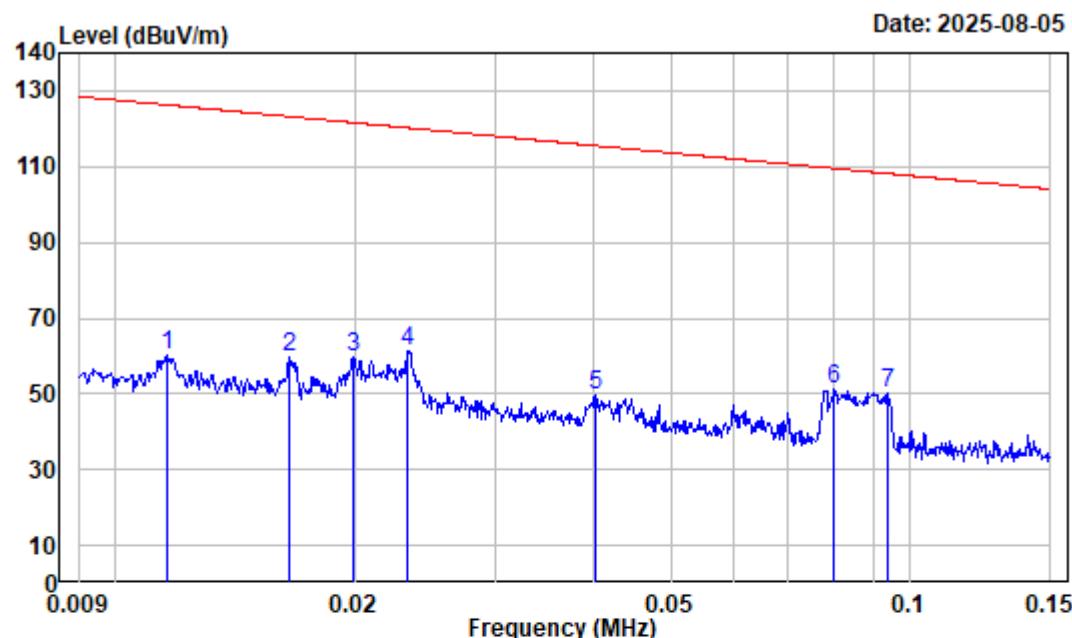
#### Environmental Conditions

Temperature:	23.7 °C
Relative Humidity:	55 %
ATM Pressure:	99.3 kPa
Test Engineer:	Colin Lin
Test Date:	2025-08-05
EUT Operation Mode:	Transmitting

**Test Result:** Compliance, please refer to the below data.

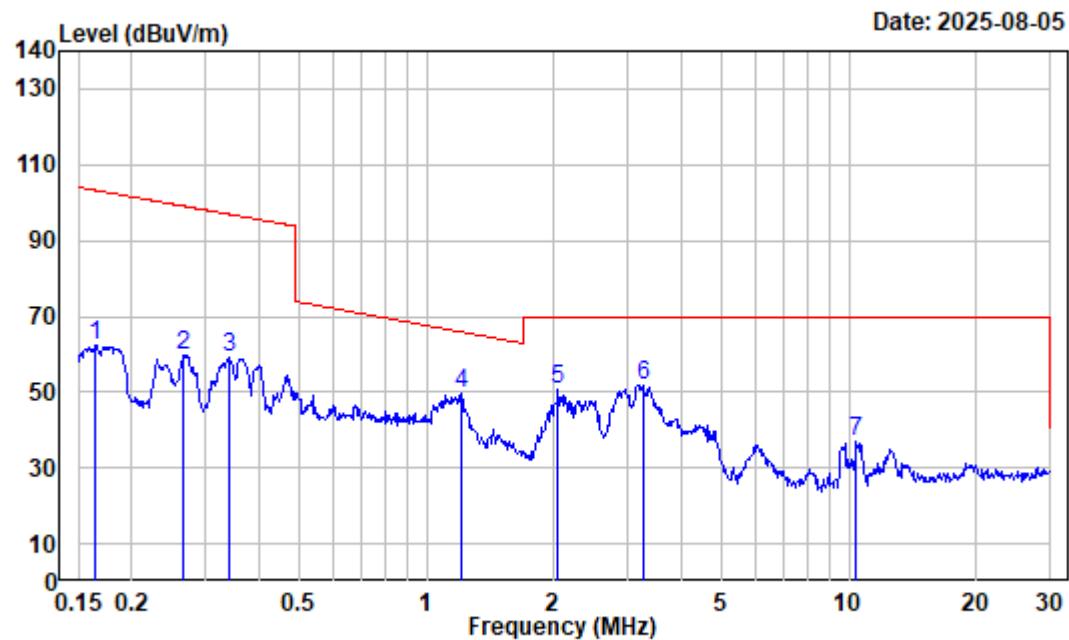
*Note: The maximum E-Field strength channel: Middle Channel was tested.*

9kHz~30MHz:



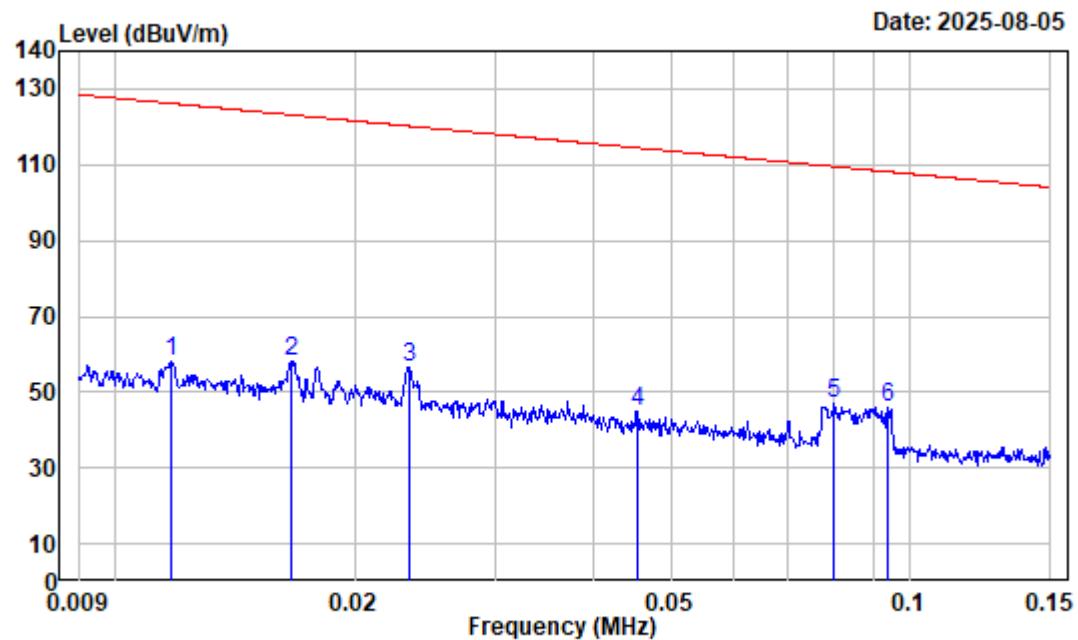
Site : Chamber  
Condition : 3m  
Job No. : 2504V18548E-RF  
Polarization : Parallel Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:300Hz VBW:1kHz

	Freq	Factor	Read Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.012	35.11	25.00	60.11	126.30	-66.19	Peak
2	0.017	32.92	26.57	59.49	123.22	-63.73	Peak
3	0.020	31.44	28.17	59.61	121.63	-62.02	Peak
4	0.023	29.90	31.40	61.30	120.24	-58.94	Peak
5	0.040	24.86	24.78	49.64	115.54	-65.90	Peak
6	0.080	18.50	32.77	51.27	109.51	-58.24	Peak
7	0.094	17.12	33.06	50.18	108.19	-58.01	Peak



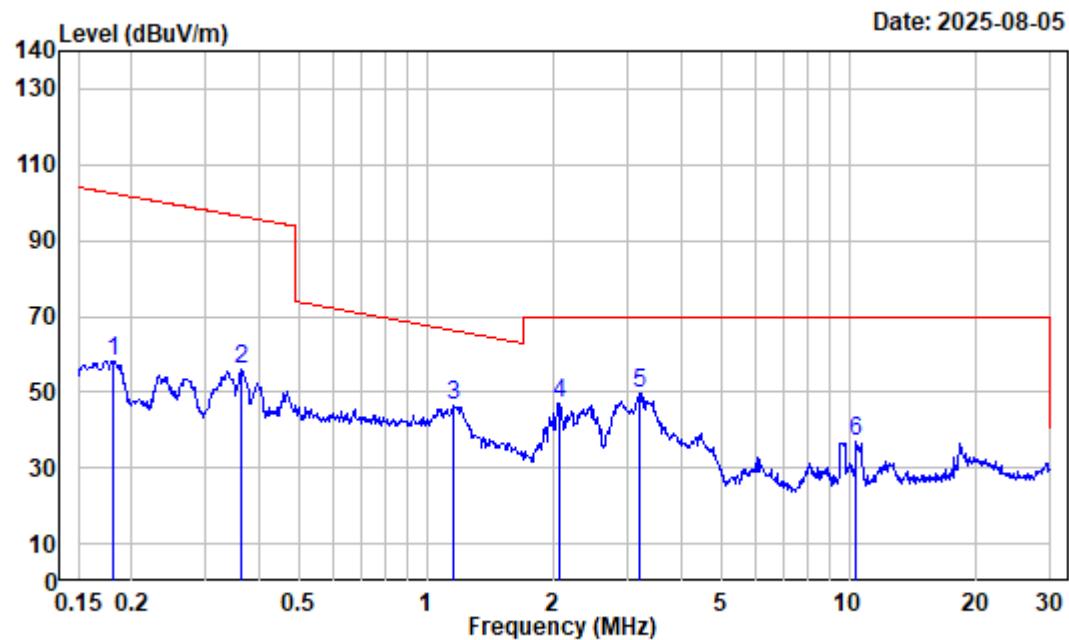
Site : Chamber  
Condition : 3m  
Job No. : 2504V18548E-RF  
Polarization : Parallel Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:10kHz VBW:30kHz

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
1	0.165	13.48	49.09	62.57	103.25	-40.68	Peak
2	0.266	8.83	50.98	59.81	99.11	-39.30	Peak
3	0.341	6.45	52.52	58.97	96.95	-37.98	Peak
4	1.210	-2.58	52.45	49.87	65.78	-15.91	Peak
5	2.044	-5.40	56.02	50.62	69.54	-18.92	Peak
6	3.258	-5.95	57.92	51.97	69.54	-17.57	Peak
7	10.397	-5.25	42.27	37.02	69.54	-32.52	Peak



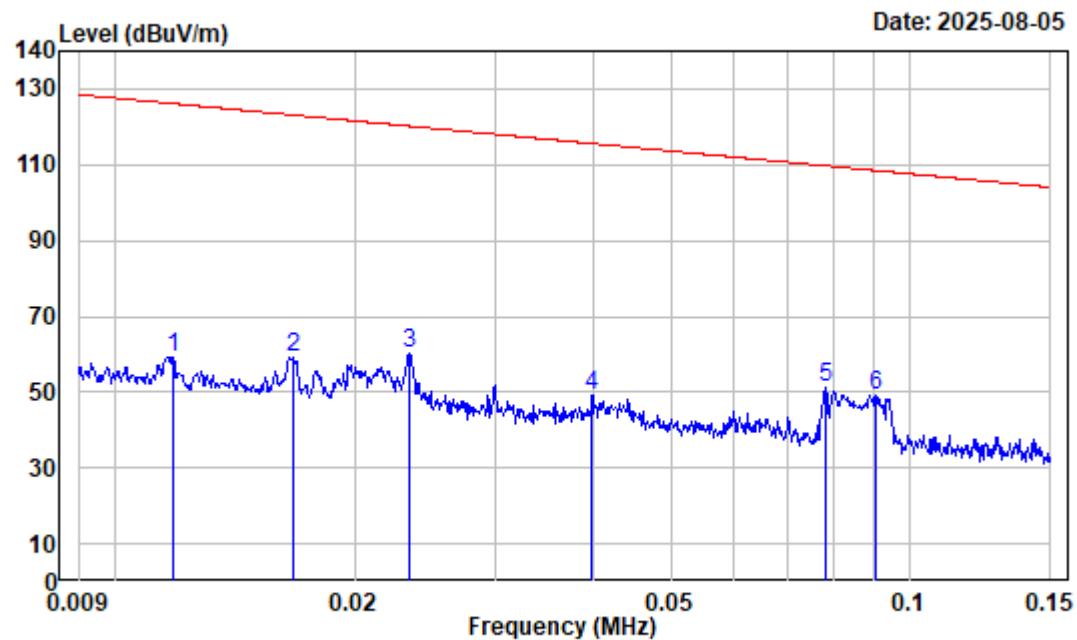
Site : Chamber  
Condition : 3m  
Job No. : 2504V18548E-RF  
Polarization : Perpendicular Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:300Hz VBW:1kHz

Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
1	0.012	35.05	22.97	58.02	126.20	-68.18	Peak
2	0.017	32.87	25.26	58.13	123.17	-65.04	Peak
3	0.023	29.87	26.86	56.73	120.21	-63.48	Peak
4	0.045	23.77	21.16	44.93	114.47	-69.54	Peak
5	0.080	18.50	28.34	46.84	109.51	-62.67	Peak
6	0.094	17.09	28.81	45.90	108.16	-62.26	Peak



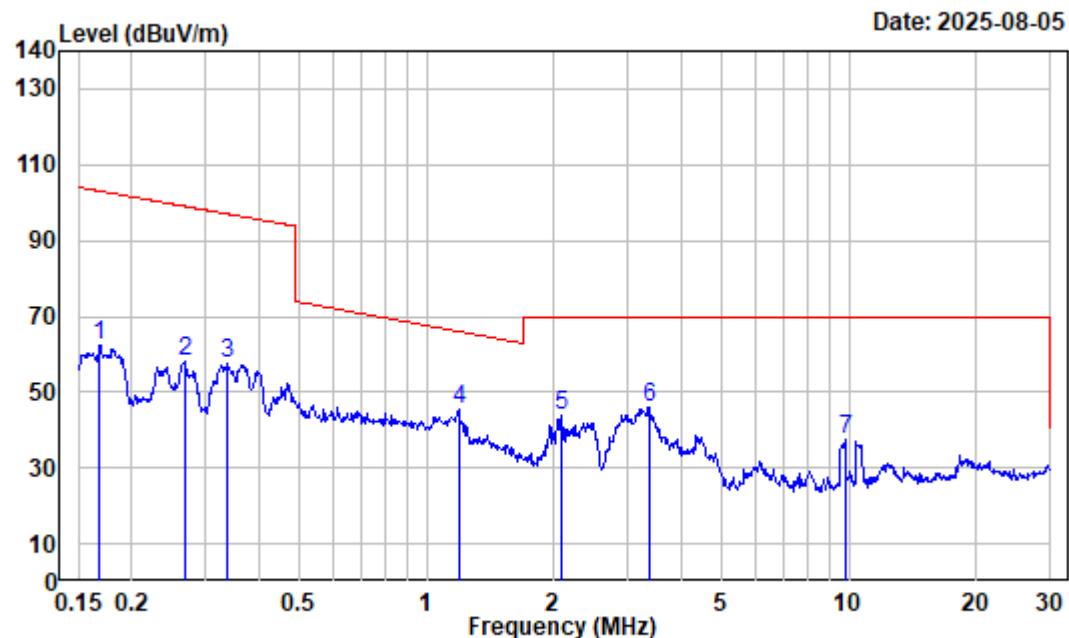
Site : Chamber  
Condition : 3m  
Job No. : 2504V18548E-RF  
Polarization : Perpendicular Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:10kHz VBW:30kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	Level	dBuV	Line	dBuV/m
1	0.182	12.72	102.43	45.63	58.35	-44.08	Peak
2	0.363	6.00	96.40	50.20	56.20	-40.20	Peak
3	1.153	-2.37	66.21	49.12	46.75	-19.46	Peak
4	2.066	-5.41	69.54	52.63	47.22	-22.32	Peak
5	3.207	-5.93	69.54	55.57	49.64	-19.90	Peak
6	10.397	-5.25	69.54	42.44	37.19	-32.35	Peak



Site : Chamber  
Condition : 3m  
Job No. : 2504V18548E-RF  
Polarization : Ground-parallel Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:300Hz VBW:1kHz

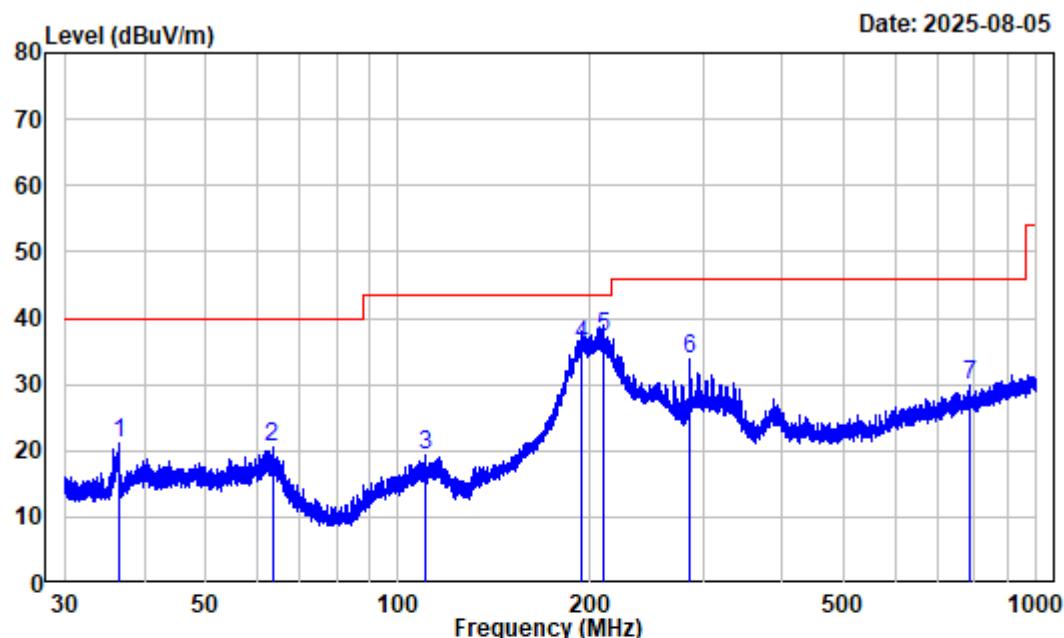
Freq	Factor	Read		Limit		Over	Remark
		Level	Level	Line	Line		
1	0.012	35.02	24.38	59.40	126.15	-66.75	Peak
2	0.017	32.83	26.56	59.39	123.12	-63.73	Peak
3	0.023	29.87	30.14	60.01	120.21	-60.20	Peak
4	0.040	24.93	24.33	49.26	115.62	-66.36	Peak
5	0.078	18.77	32.36	51.13	109.73	-58.60	Peak
6	0.090	17.44	31.58	49.02	108.48	-59.46	Peak



Site : Chamber  
Condition : 3m  
Job No. : 2504V18548E-RF  
Polarization : Ground-parallel Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:10kHz VBW:30kHz

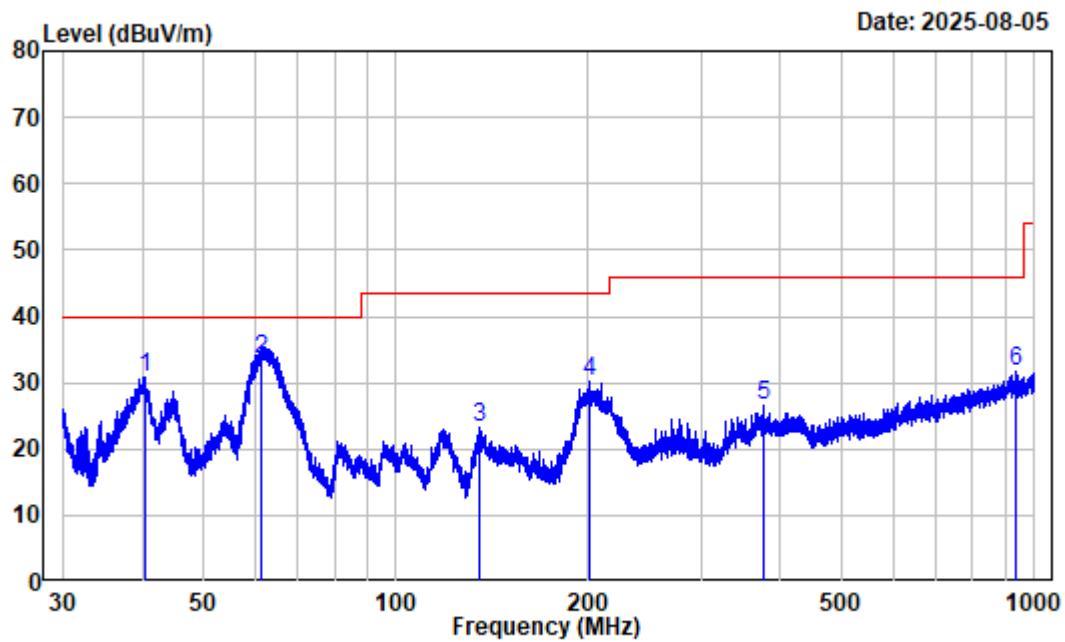
Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	0.169	13.32	48.93	62.25	103.07	-40.82	Peak
2	0.269	8.70	49.60	58.30	99.02	-40.72	Peak
3	0.337	6.52	51.26	57.78	97.04	-39.26	Peak
4	1.191	-2.51	47.72	45.21	65.92	-20.71	Peak
5	2.088	-5.42	49.03	43.61	69.54	-25.93	Peak
6	3.364	-6.00	52.19	46.19	69.54	-23.35	Peak
7	9.809	-5.38	43.04	37.66	69.54	-31.88	Peak

30MHz~1GHz:



Site : Chamber  
Condition : 3m HORIZONTAL  
Job No. : 2504V18548E-RF Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:100kHz VBW:300kHz

	Read	Limit	Over		
Freq	Factor	Level	Level	Line Limit Remark	
	MHz	dB/m	dBuV	dBuV/m	dB
1	36.525	-11.35	32.38	21.03	40.00 -18.97 Peak
2	63.480	-11.85	32.48	20.63	40.00 -19.37 Peak
3	109.940	-11.61	30.83	19.22	43.50 -24.28 Peak
4	193.179	-9.95	45.80	35.85	43.50 -7.65 QP
5	209.130	-10.66	47.91	37.25	43.50 -6.25 QP
6	286.731	-9.10	42.87	33.77	46.00 -12.23 Peak
7	787.161	0.29	29.45	29.74	46.00 -16.26 Peak



Site : Chamber  
Condition : 3m VERTICAL  
Job No. : 2504V18548E-RF Tester: Colin Lin  
Test Mode : Transmitting  
Receiver Setting: RBW:100kHz VBW:300kHz

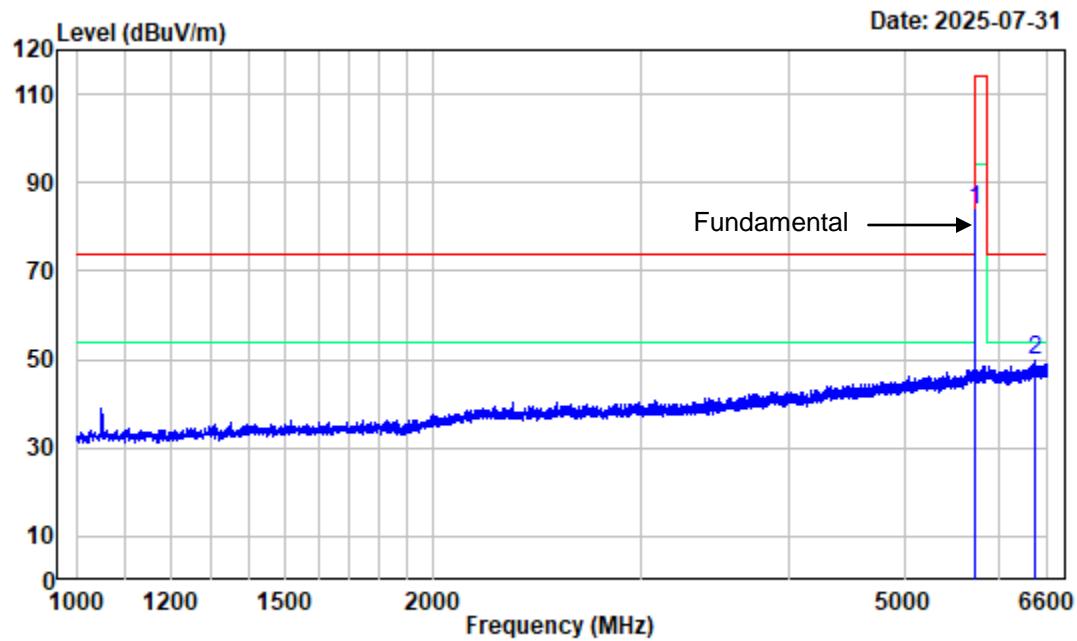
	Freq	Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	40.453	-10.47	41.28	30.81	40.00	-9.19	Peak
2	61.427	-11.09	44.49	33.40	40.00	-6.60	QP
3	134.973	-14.44	37.55	23.11	43.50	-20.39	Peak
4	201.128	-10.65	40.99	30.34	43.50	-13.16	Peak
5	376.433	-6.72	33.17	26.45	46.00	-19.55	Peak
6	938.010	2.10	29.70	31.80	46.00	-14.20	Peak

**1GHz-40GHz****Environmental Conditions**

<b>Temperature:</b>	24.2 °C
<b>Relative Humidity:</b>	51 %
<b>ATM Pressure:</b>	100.1 kPa
<b>Test Engineer:</b>	Lorne Huang
<b>Test Date:</b>	2025-07-31
<b>EUT Operation Mode:</b>	Transmitting

**Test Result:** Compliance, please refer to the below data.

*Note: For 18GHz-40GHz, the maximum E-Field strength channel: Middle Channel was tested.*

**5.8 GHz microwave radar Low Channel 1GHz-6.6GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504V18548E-RF

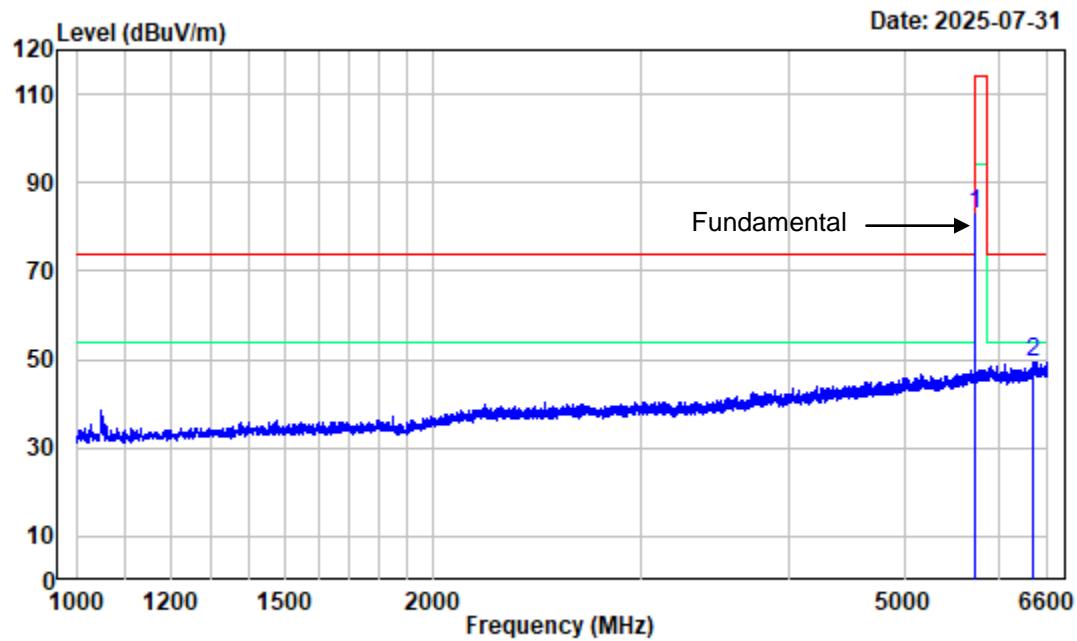
Test Mode : Transmitting

Tester: Lorne Huang

Note : Low Channel 5730MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	5731.300	-4.48	88.10	83.62	114.00	-30.38	Peak
2	6452.300	-3.47	53.08	49.61	74.00	-24.39	Peak

**5.8 GHz microwave radar Low Channel 1GHz-6.6GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

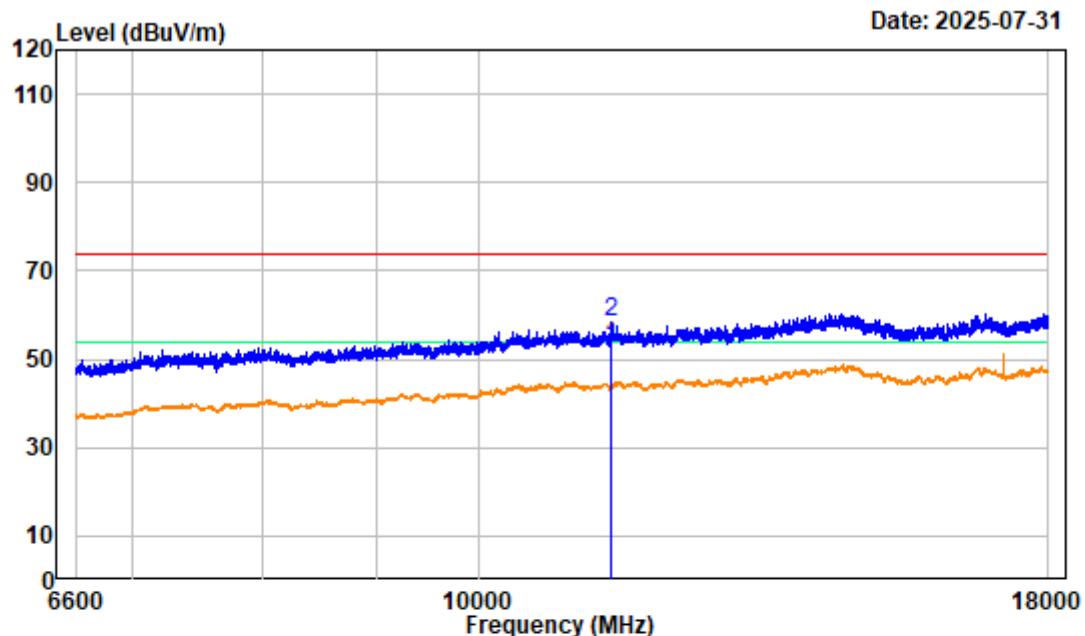
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Low Channel 5730MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	5731.300	-4.48	87.42	82.94	114.00	-31.06	Peak
2	6406.100	-3.64	53.04	49.40	74.00	-24.60	Peak

**5.8 GHz microwave radar Low Channel 6.6GHz-18GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

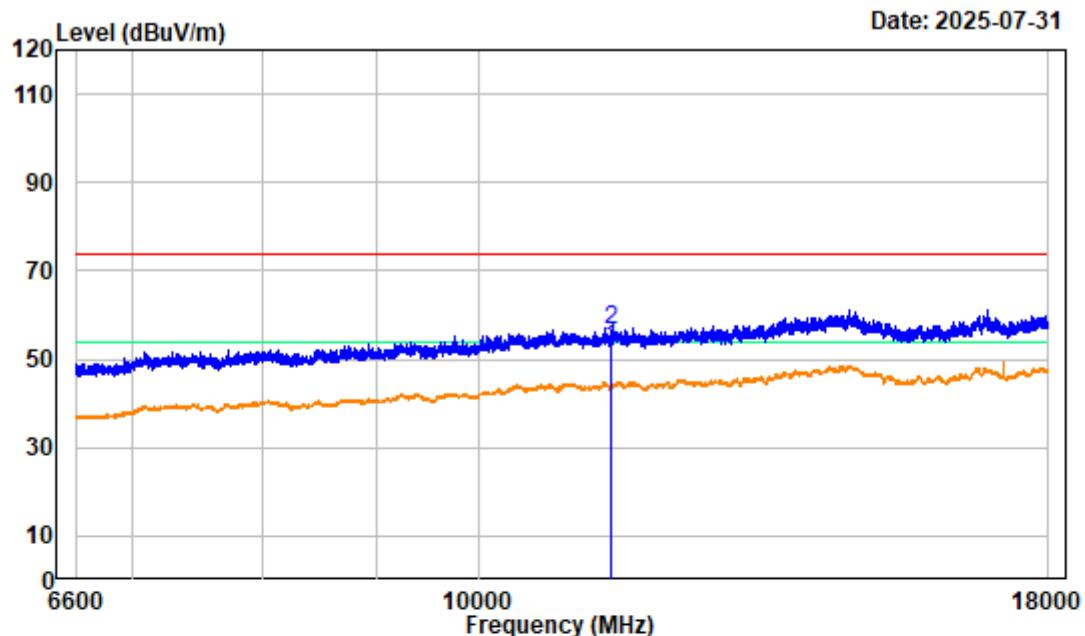
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Low Channel 5730MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz Ave:RBW:1MHz, VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	11460.670	5.48	47.05	52.53	54.00	-1.47	Average
2	11460.670	5.48	52.73	58.21	74.00	-15.79	Peak

**5.8 GHz microwave radar Low Channel 6.6GHz-18GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

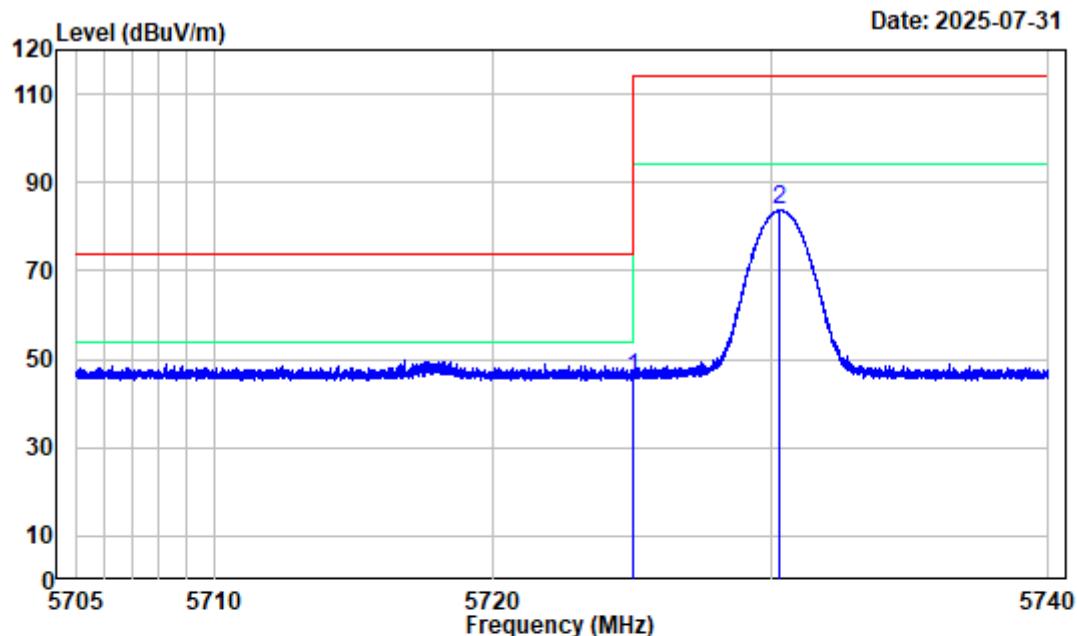
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Low Channel 5730MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz Ave:RBW:1MHz, VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	11459.250	5.45	46.99	52.44	54.00	-1.56	Average
2	11459.250	5.45	50.94	56.39	74.00	-17.61	Peak

**5.8 GHz microwave radar Low Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

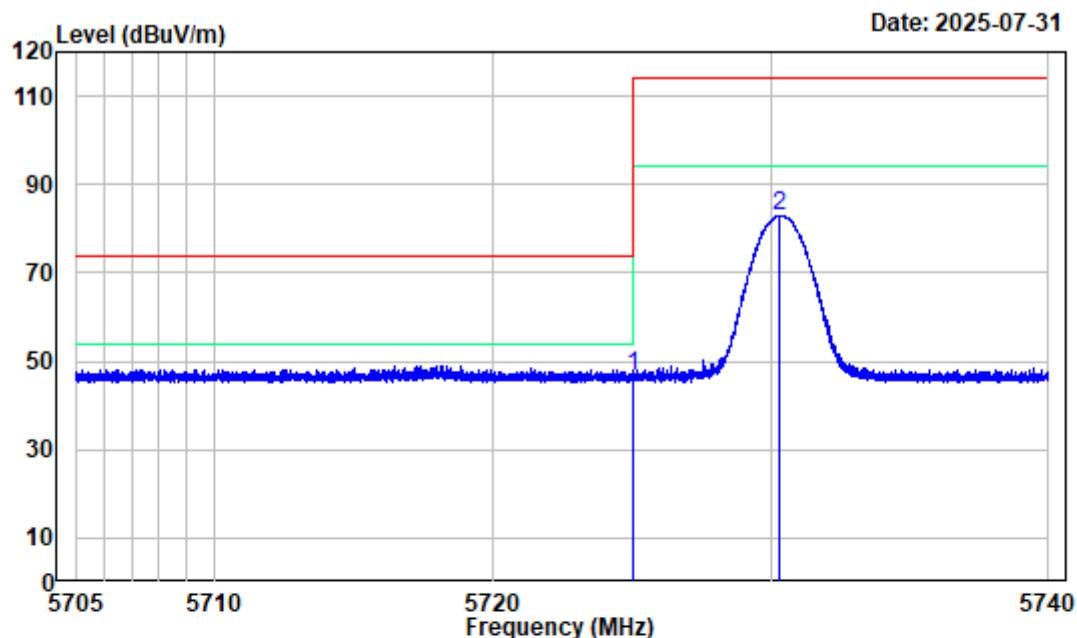
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Low Channel 5730MHz Bandedge

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	5725.000	-4.45	50.32	45.87	74.00	-28.13	Peak
2	5730.322	-4.47	88.08	83.61	114.00	-30.39	Peak

**5.8 GHz microwave radar Low Channel Bandedge\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

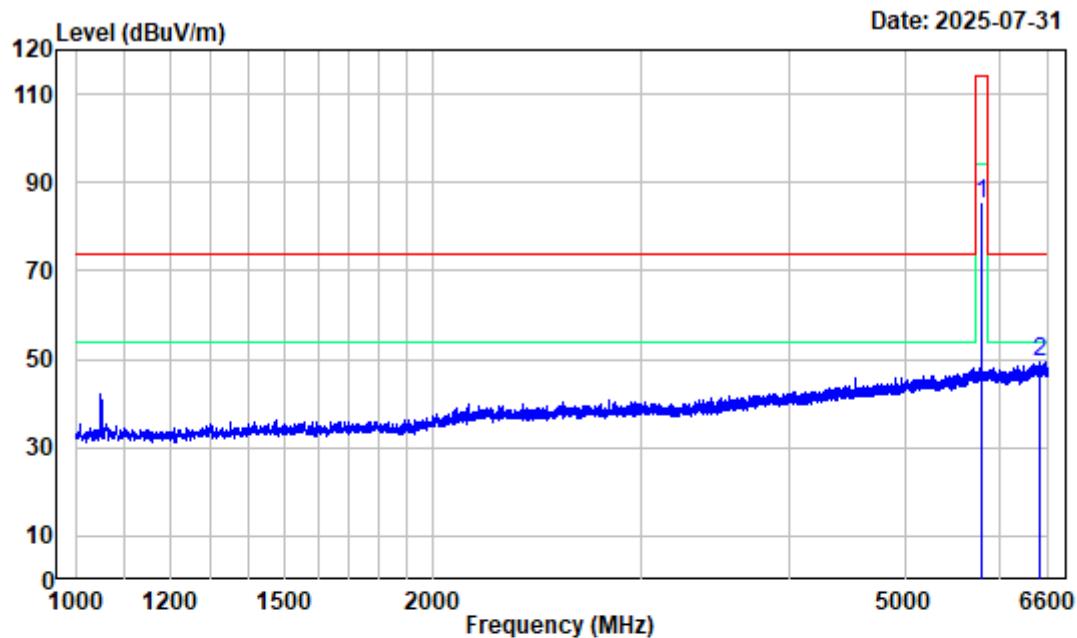
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Low Channel 5730MHz Bandedge

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	5725.000	-4.45	51.00	46.55	74.00	-27.45	Peak
2	5730.310	-4.47	87.41	82.94	114.00	-31.06	Peak

**5.8 GHz microwave radar Middle Channel 1GHz-6.6GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

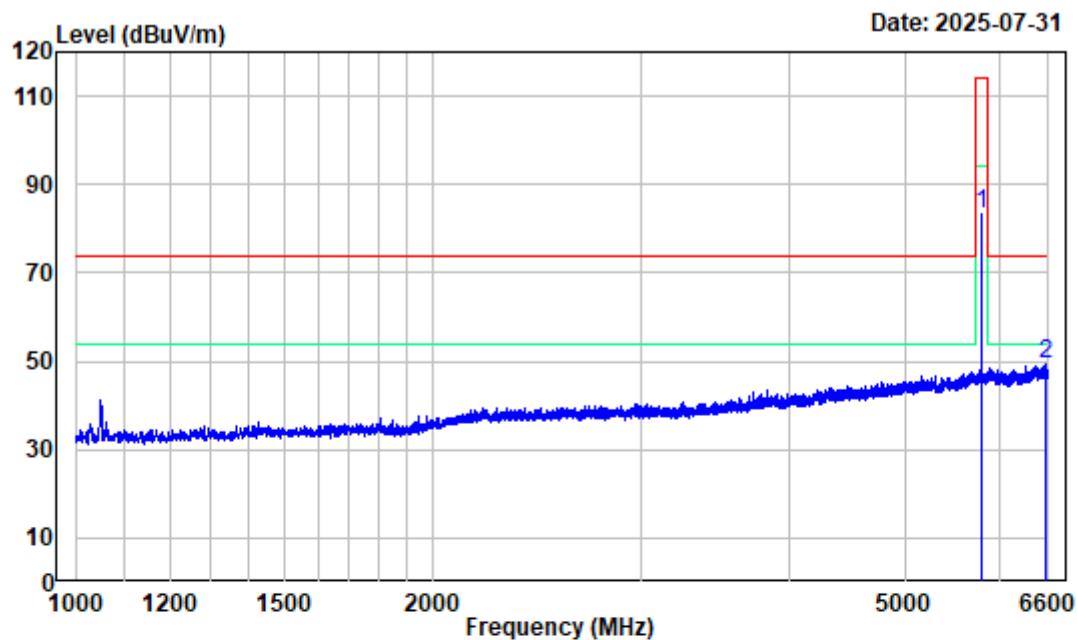
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	
1	5801.300	-4.59	89.75	85.16	114.00	-28.84	Peak
2	6495.000	-3.81	53.20	49.39	74.00	-24.61	Peak

**5.8 GHz microwave radar Middle Channel 1GHz-6.6GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

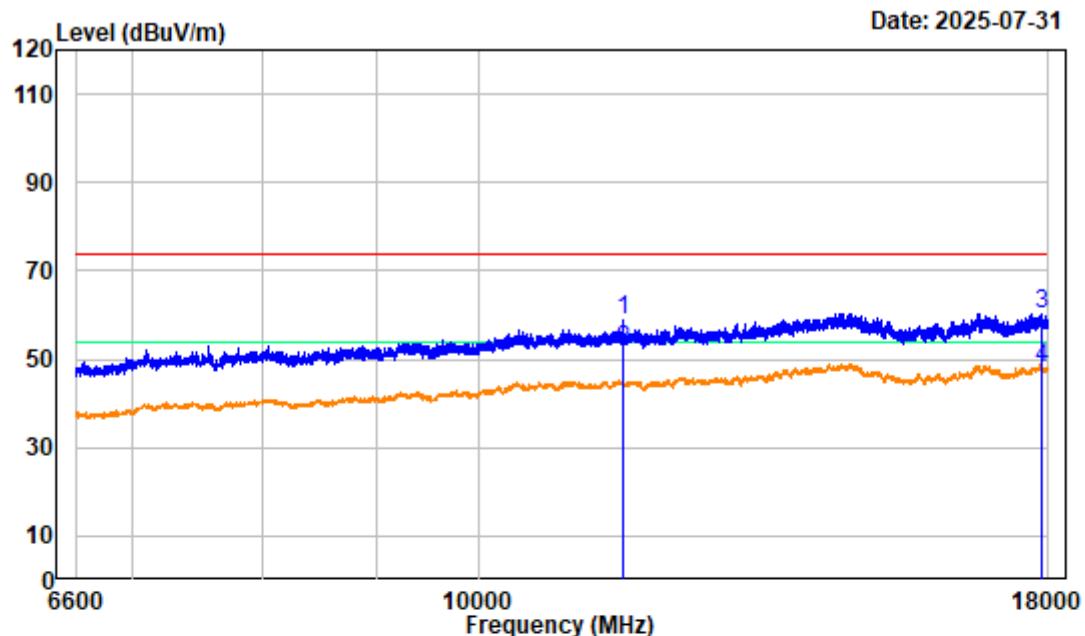
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	5800.600	-4.59	87.78	83.19	114.00	-30.81	Peak
2	6572.700	-3.57	52.99	49.42	74.00	-24.58	Peak

**5.8 GHz microwave radar Middle Channel 6.6GHz-18GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

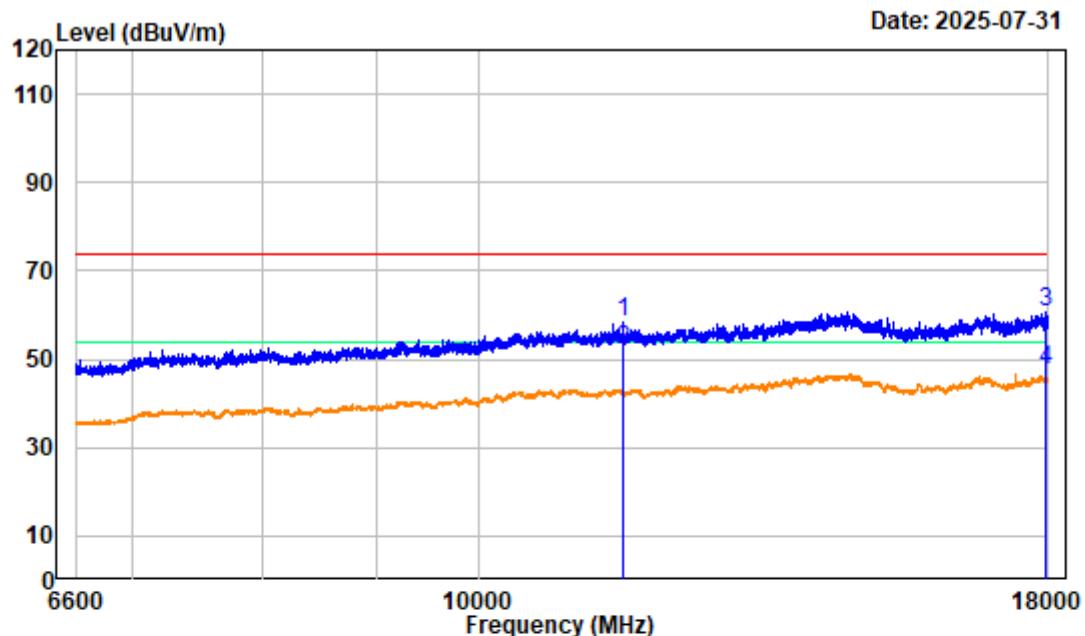
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz Ave:RBW:1MHz, VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	11600.330	5.73	53.22	58.95	74.00	-15.05	Peak
2	11600.330	5.73	46.52	52.25	54.00	-1.75	Average
3	17876.030	8.29	52.16	60.45	74.00	-13.55	Peak
4	17876.030	8.29	39.49	47.78	54.00	-6.22	Average

**5.8 GHz microwave radar Middle Channel 6.6GHz-18GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

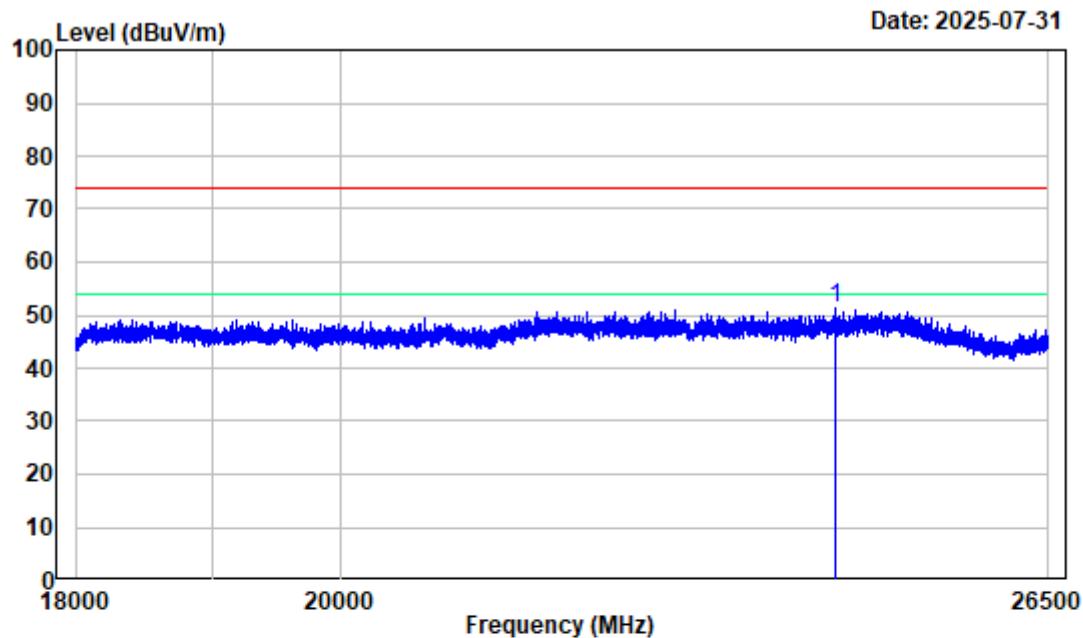
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz Ave:RBW:1MHz, VBW:3kHz

Freq MHz	Factor	Read		Limit		Over Limit	Remark
		Level dB/m	Level dBuV	Line dBuV/m	Line dBuV/m		
1 11600.330	5.73	52.66	58.39	74.00	-15.61	Peak	
2 11600.330	5.73	46.42	52.15	54.00	-1.85	Average	
3 17958.680	8.21	52.62	60.83	74.00	-13.17	Peak	
4 17958.680	8.21	39.49	47.70	54.00	-6.30	Average	

**5.8 GHz microwave radar Middle Channel 18GHz-26.5GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

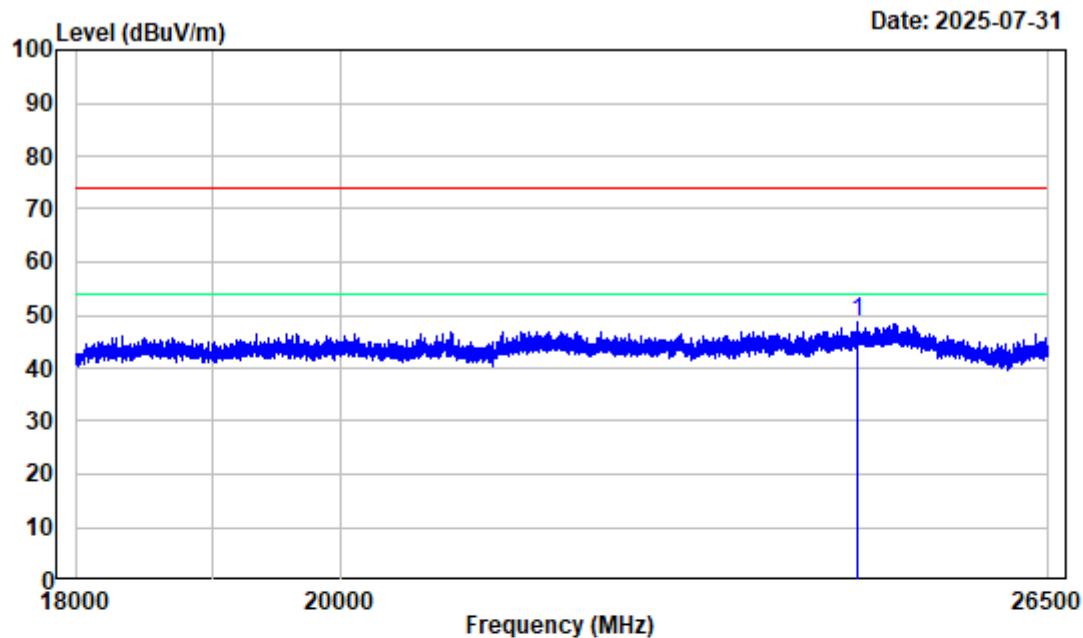
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 18GHz-26.5GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	24353.750	2.22	48.92	51.14	74.00	-22.86	Peak

**5.8 GHz microwave radar Middle Channel 18GHz-26.5GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

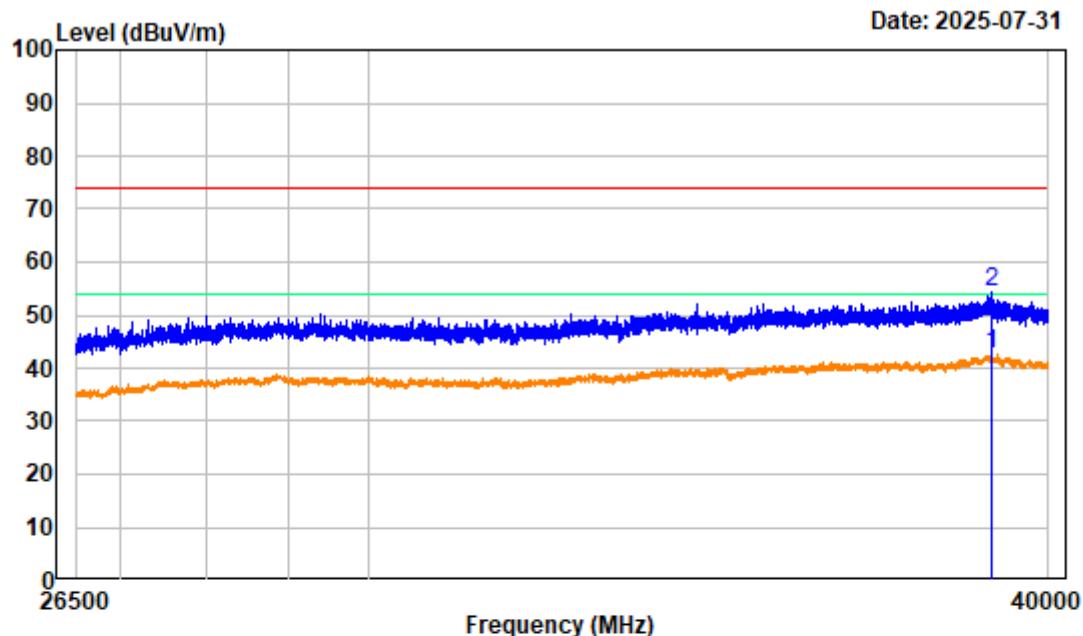
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 18GHz-26.5GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	24565.190	-0.38	49.08	48.70	74.00	-25.30	Peak

**5.8 GHz microwave radar Middle Channel 26.5GHz-40GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504V18548E-RF

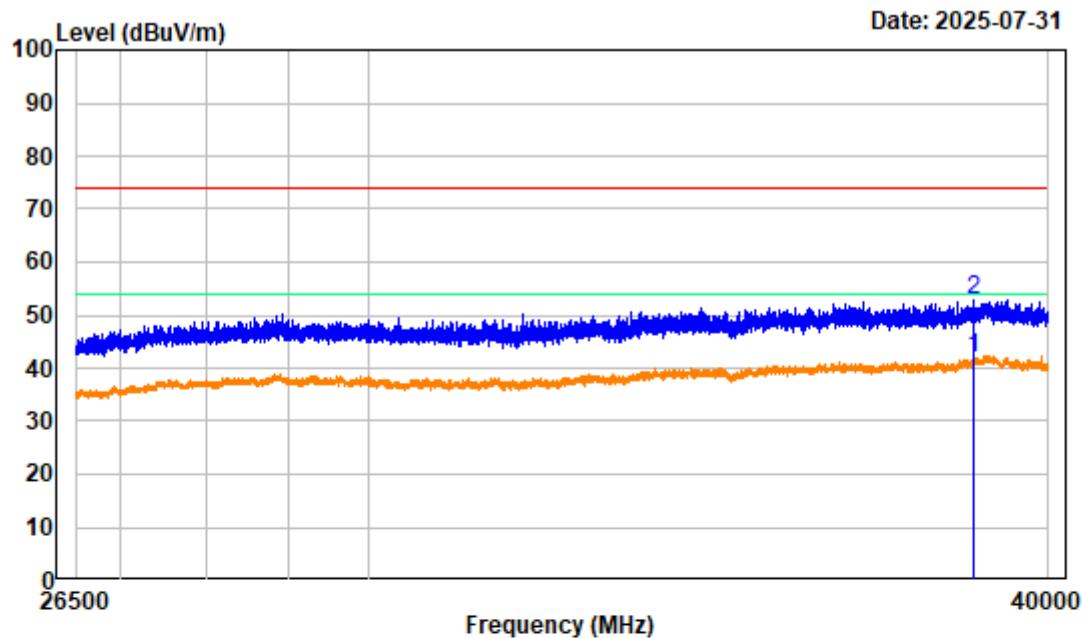
Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 26.5GHz-40GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz Ave:RBW:1MHz, VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dB <sub>uV</sub>	dB <sub>uV/m</sub>		
1	39066.810	3.48	39.10	42.58	54.00	-11.42	Average
2	39066.810	3.48	50.71	54.19	74.00	-19.81	Peak

## 5.8 GHz microwave radar Middle Channel 26.5GHz-40GHz\_VERTICAL



Site : chamber

Condition : 3m VERTICAL

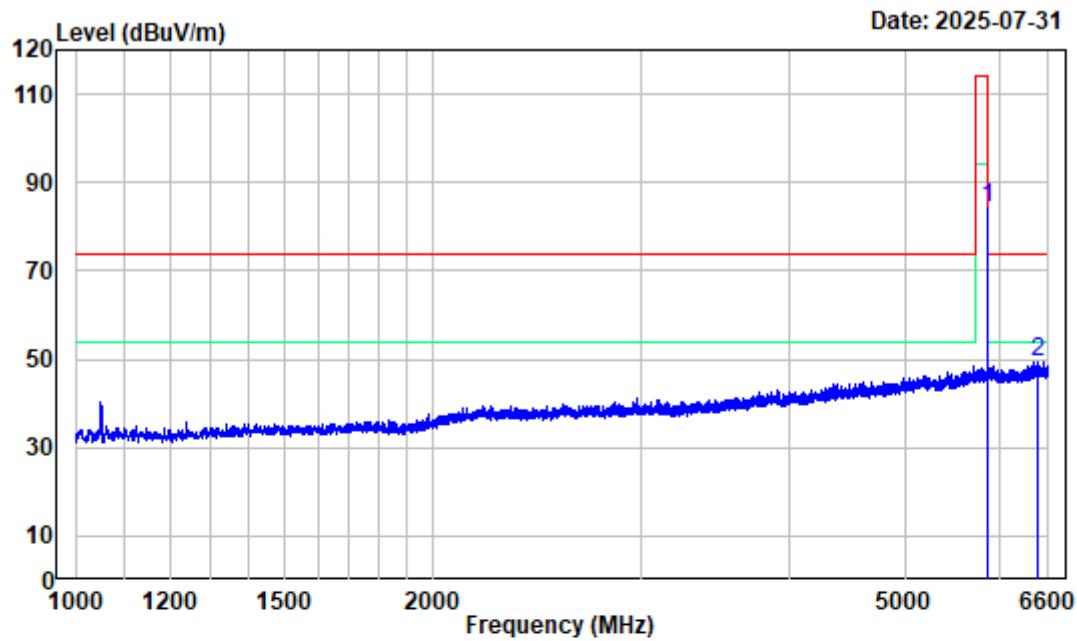
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : Middle Channel 5800MHz 26.5GHz-40GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	38763.060	2.78	39.02	41.80	54.00	-12.20	Average
2	38763.060	2.78	50.10	52.88	74.00	-21.12	Peak

**5.8 GHz microwave radar High Channel 1GHz-6.6GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

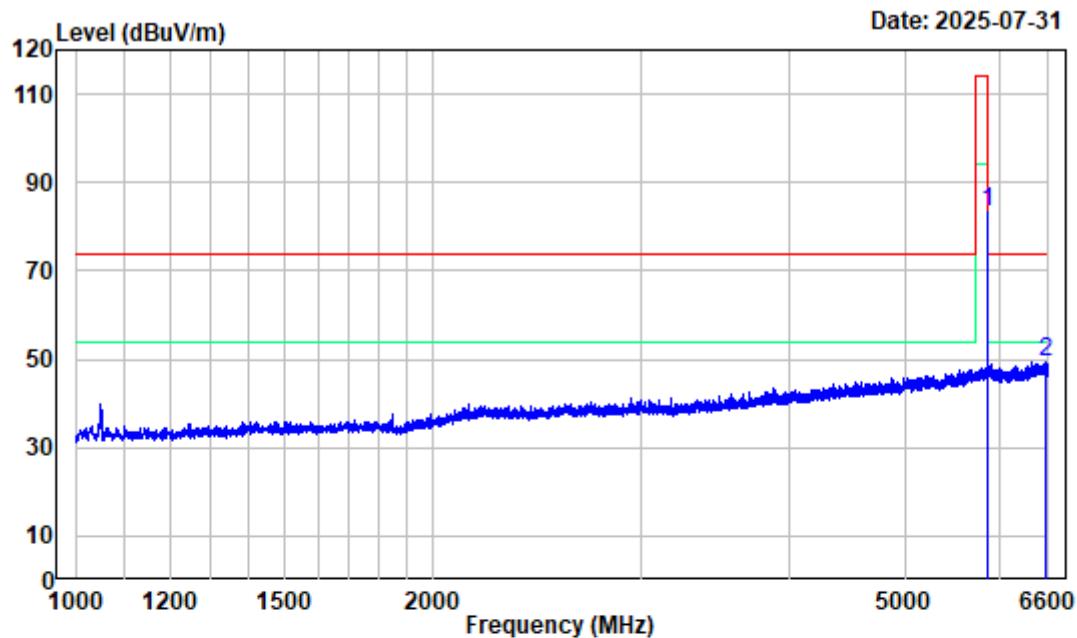
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : High Channel 5870MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	5871.300	-4.25	88.30	84.05	114.00	-29.95	Peak
2	6462.800	-3.55	53.01	49.46	74.00	-24.54	Peak

**5.8 GHz microwave radar High Channel 1GHz-6.6GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

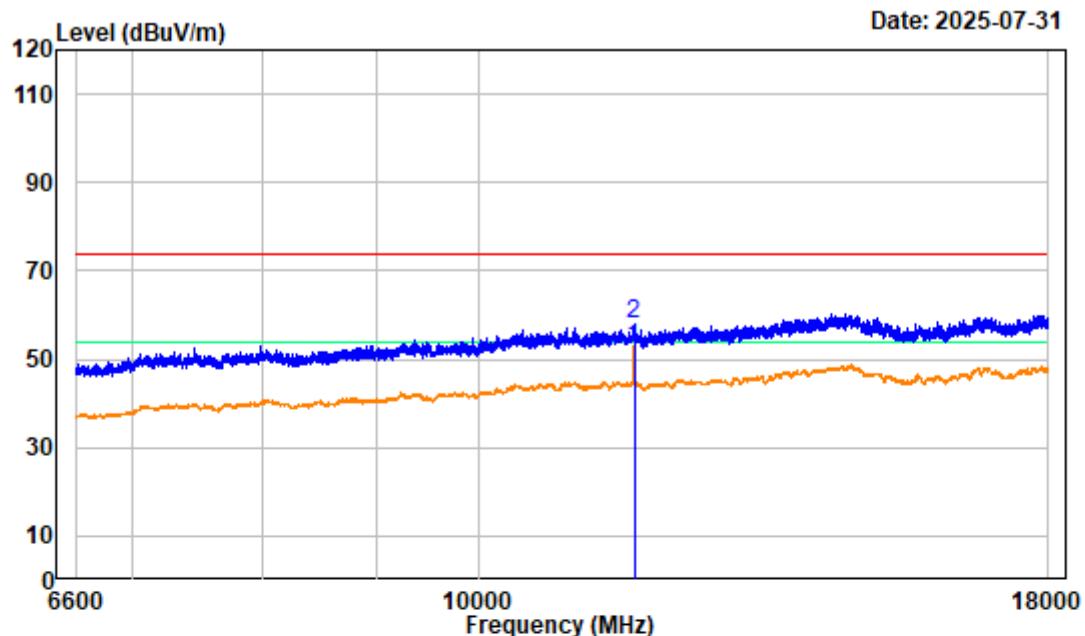
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : High Channel 5870MHz 1GHz-6.6GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	5871.300	-4.25	87.35	83.10	114.00	-30.90	Peak
2	6569.200	-3.58	52.76	49.18	74.00	-24.82	Peak

**5.8 GHz microwave radar High Channel 6.6GHz-18GHz\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

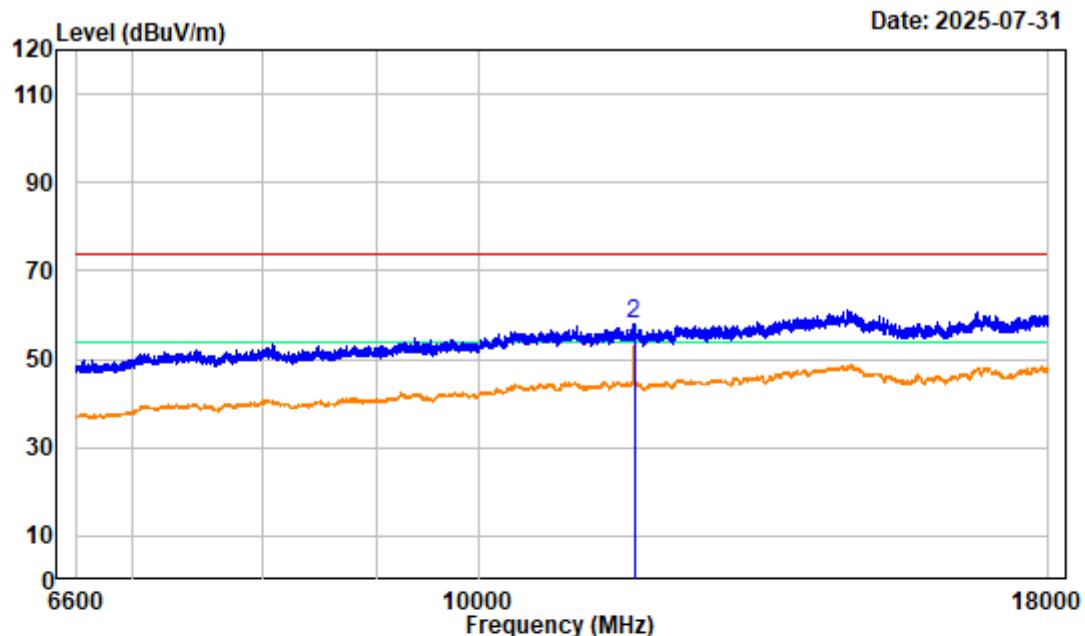
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : High Channel 5870MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz Ave:RBW:1MHz, VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	11741.400	5.38	47.03	52.41	54.00	-1.59	Average
2	11741.400	5.38	52.37	57.75	74.00	-16.25	Peak

**5.8 GHz microwave radar High Channel 6.6GHz-18GHz\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

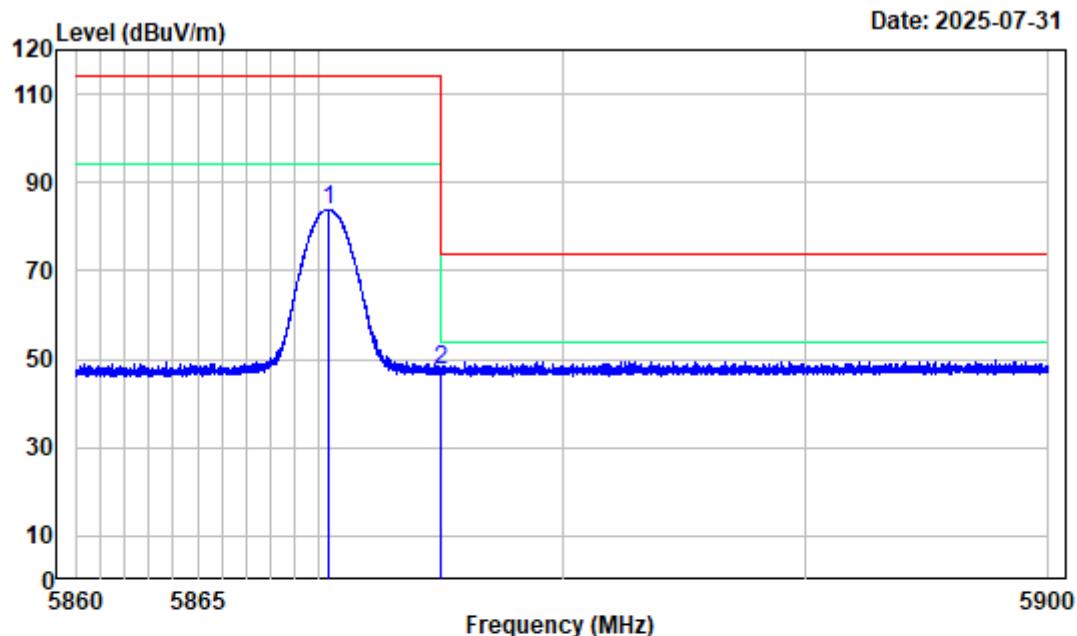
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : High Channel 5870MHz 6.6GHz-18GHz

SA setting : Peak:RBW:1MHz, VBW:3MHz Ave:RBW:1MHz, VBW:3kHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m	Line	
1	11741.400	5.38	46.89	52.27	54.00	-1.73	Average
2	11741.400	5.38	52.60	57.98	74.00	-16.02	Peak

**5.8 GHz microwave radar High Channel Bandedge\_HORIZONTAL**

Site : chamber

Condition : 3m HORIZONTAL

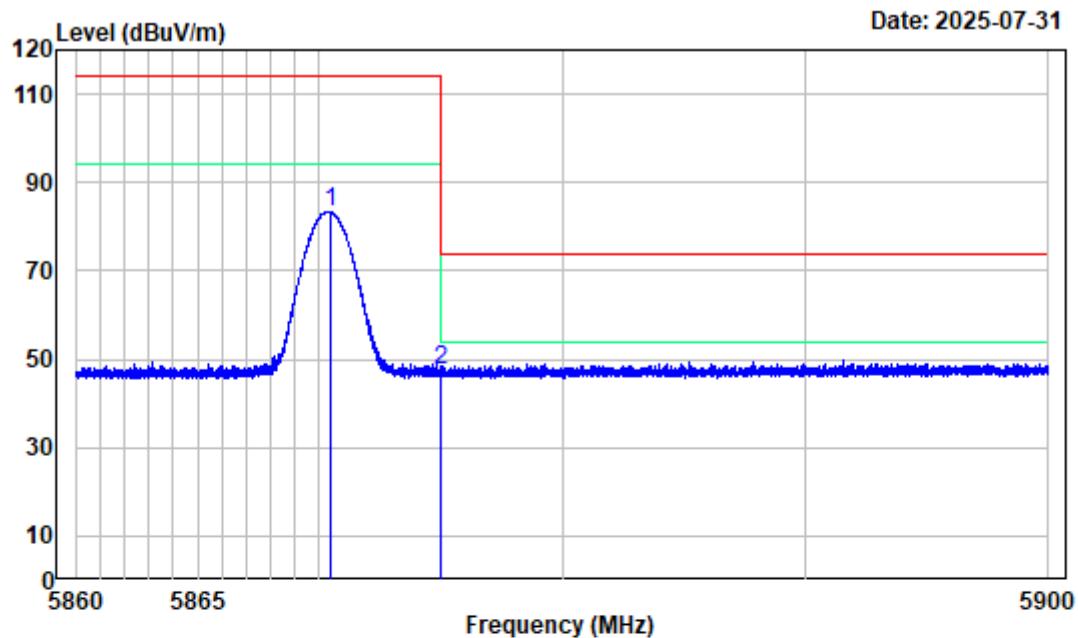
Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : High Channel 5870MHz Bandedge

SA setting : Peak:RBW:1MHz, VBW:3MHz

Freq	Factor	Read		Limit		Over	Remark
		MHz	dB/m	dBuV	dBuV/m		
1	5870.375	-4.27	88.20	83.93	114.00	-30.07	Peak
2	5875.000	-4.20	51.56	47.36	74.00	-26.64	Peak

**5.8 GHz microwave radar High Channel Bandedge\_VERTICAL**

Site : chamber

Condition : 3m VERTICAL

Project No.: 2504V18548E-RF

Test Mode : Transmitting Tester: Lorne Huang

Note : High Channel 5870MHz Bandedge

SA setting : Peak:RBW:1MHz, VBW:3MHz

	Freq	Factor	Read Level	Limit Level	Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	5870.425	-4.27	87.64	83.37	114.00	-30.63	Peak
2	5875.000	-4.20	51.65	47.45	74.00	-26.55	Peak

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

### Applicable Standard

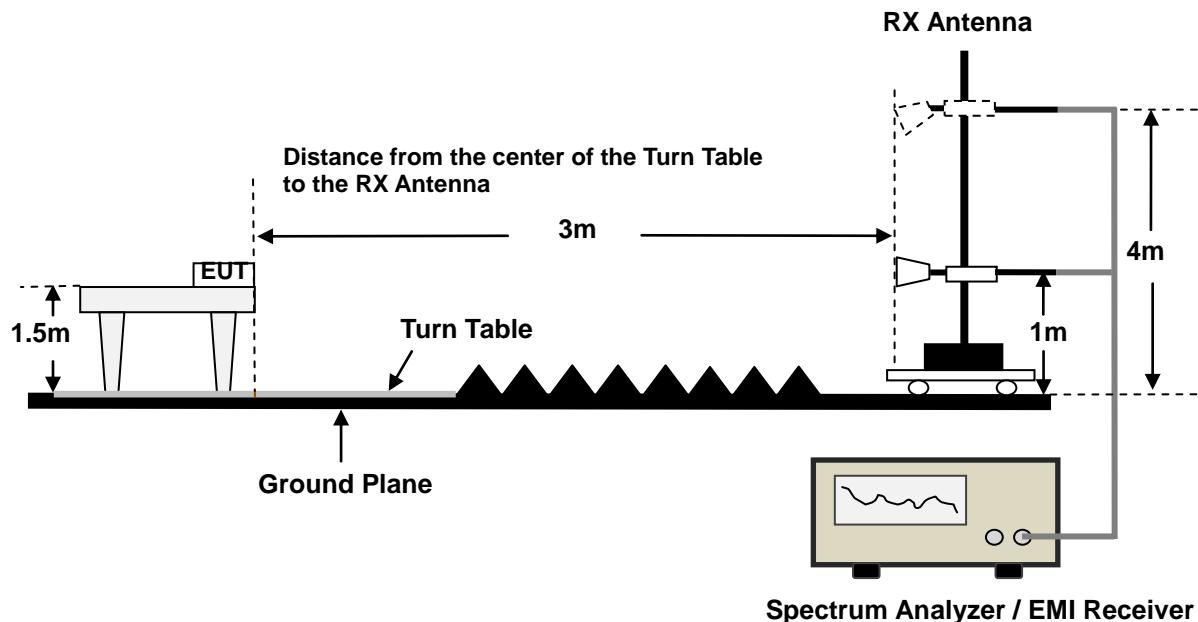
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific 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

According to ANSI C63.10-2020, section 6.9.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that indicated 20dB bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

### EUT Setup



## Test Data

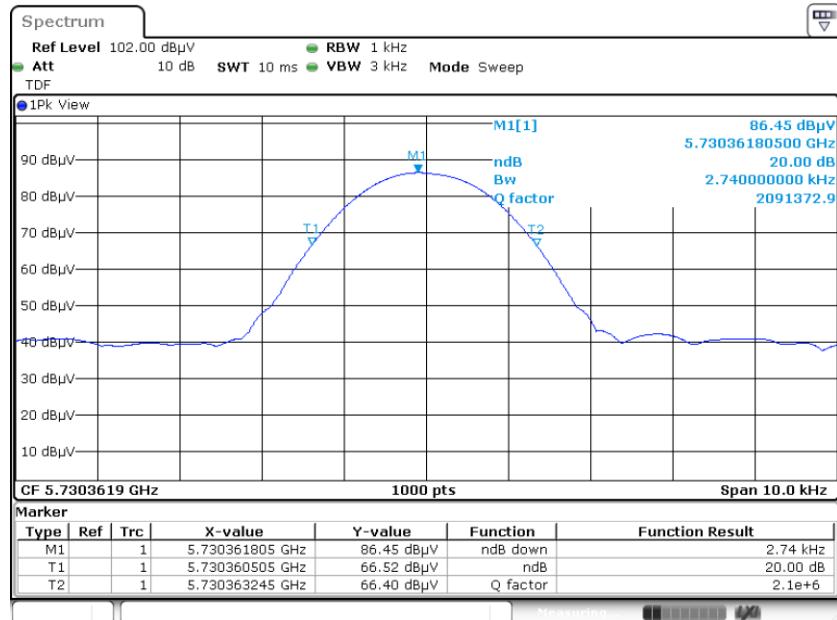
### Environmental Conditions

Temperature:	24.5 °C
Relative Humidity:	53 %
ATM Pressure:	99.3 kPa
Test Engineer:	Lorne Huang
Test Date:	2025-08-12
EUT Operation Mode:	Transmitting

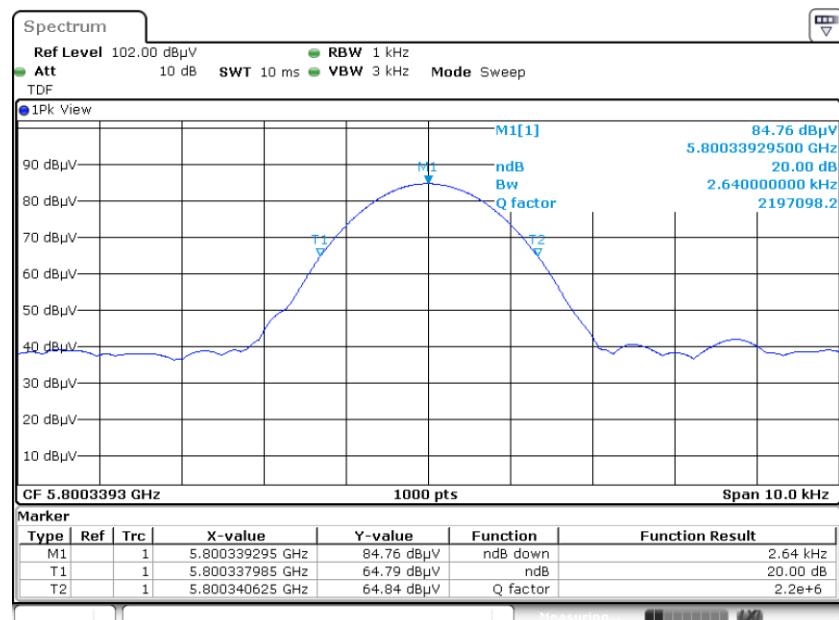
**Test Result:** Compliance, please refer to the below data.

Channel	Frequency (MHz)	20dB Bandwidth (kHz)
Low	5730	2.74
Middle	5800	2.64
High	5870	2.63

### Low Channel

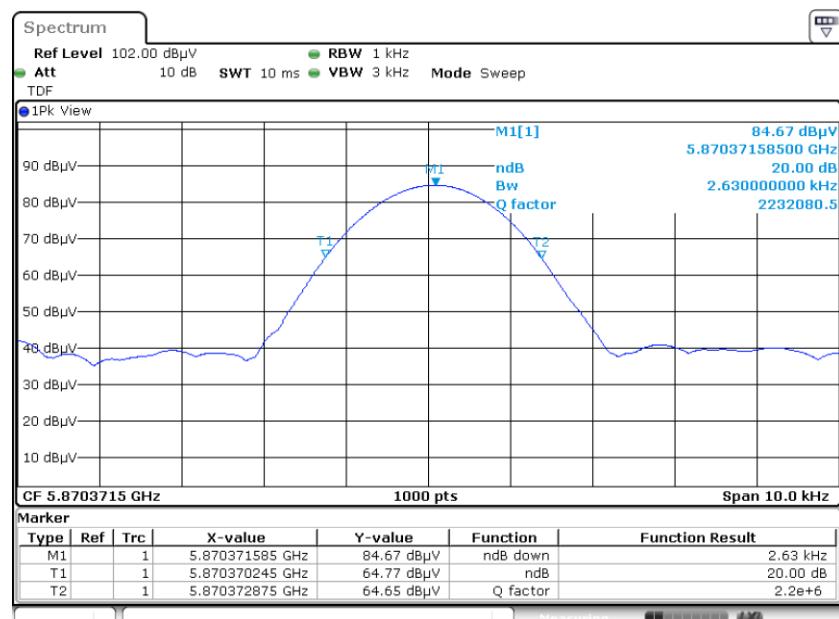


## Middle Channel



ProjectNo.:2504V18548E-RF Tester:Lorne Huang  
Date: 12.AUG.2025 18:04:29

## High Channel



ProjectNo.:2504V18548E-RF Tester:Lorne Huang  
Date: 12.AUG.2025 18:07:42

## **EXHIBIT A - EUT PHOTOGRAPHS**

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Please refer to the Attachment No.1 2504V18548E-RF EUT External Photos and Attachment No.2 2504V18548E-RF EUT Internal Photos.

## **EXHIBIT B - TEST SETUP PHOTOGRAPHS**

Please refer to the Attachment No.3 2504V18548E-RF-00A Test Photos.

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