



TEST REPORT

Applicant Name: Dawnrise Inc.
Address: 21671 Gateway Center Dr., Suite # 203 Diamond Bar, CA 91765.
U.S.A.
Report Number: 2504Y35605E-RF-00A
FCC ID: 2BTHI-CGL050RD

Test Standard (s)

FCC PART 15.249

Sample Description

Product Name: 8 IN CEILING LIGHT WITH REMOTE
Model No.: CGL050RD-LI-1
Trade Mark: Ecosmart, Dawnrise
Date Received: 2025-10-28
Report Date: 2025-12-01

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

Amanda Wei

Amanda Wei
EMC Engineer

Approved By:

Bob. Liao

Bob.Liao
EMC Engineer

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504Y35605E-RF-00A	Original Report	2025-12-01

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name	8 IN CEILING LIGHT WITH REMOTE
Tested Model	CGL050RD-LI-1
Voltage Range [#]	DC 3.7V from battery or DC 5.0V from Adapter
Frequency Range	24.00GHz-24.25GHz
Maximum E-Field Strength (Peak)	88.27dBuV/m@3m
Modulation Technique	FMCW
Antenna Specification [#]	Internal Antenna, Antenna gain: 6.9dBi (It is provided by the applicant.)
Sample Serial Number	3BH1-1 (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
	40GHz - 60GHz	4.8 dB
	60GHz - 90GHz	4.9 dB
	90GHz - 140GHz	5.5 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 in Engineering Mode and the power is default, which was provided and declared by manufacturer. The device tested at Swept mode for FMCW modulation.

Operating frequency: 24.00GHz-24.25GHz

Equipment Modifications

No modification was made to the EUT tested.

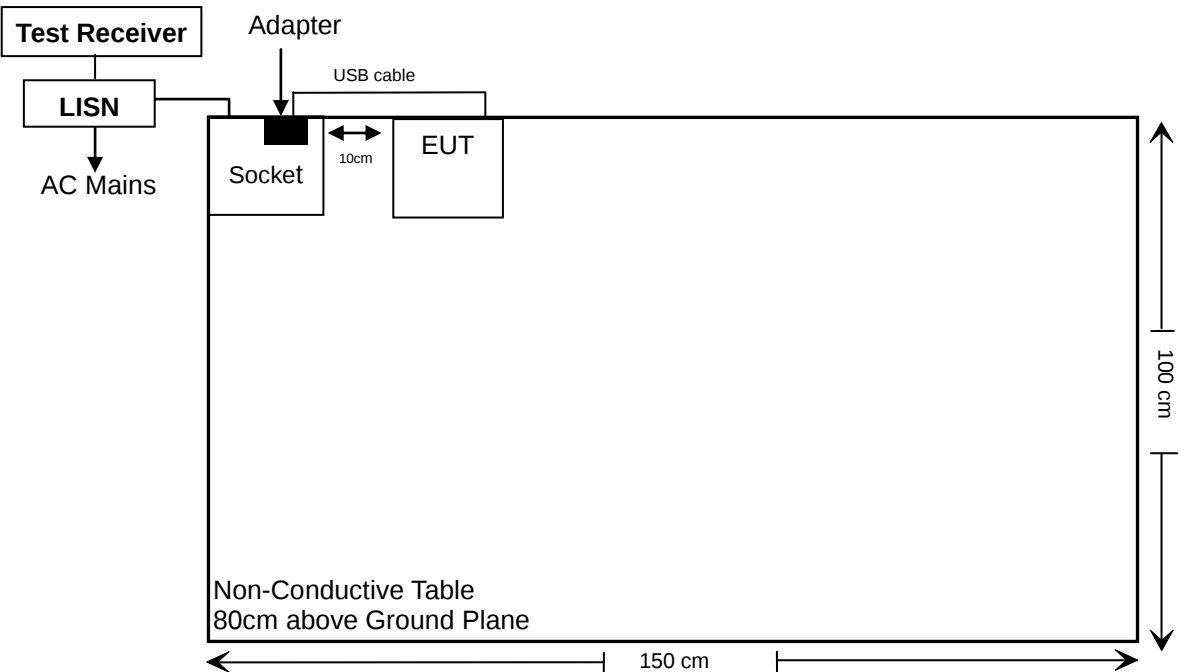
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Unknown	Adapter	Unknown	Unknown

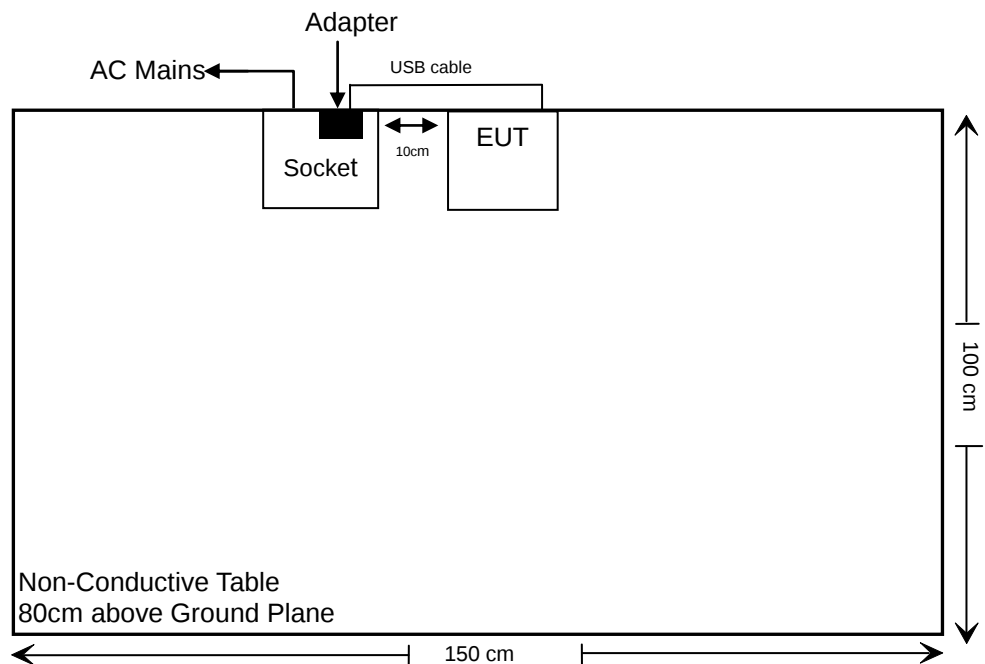
External I/O Cable

Cable Description	Shielding Type	Length (m)	From Port	To
USB cable	No	0.3	EUT	Adapter

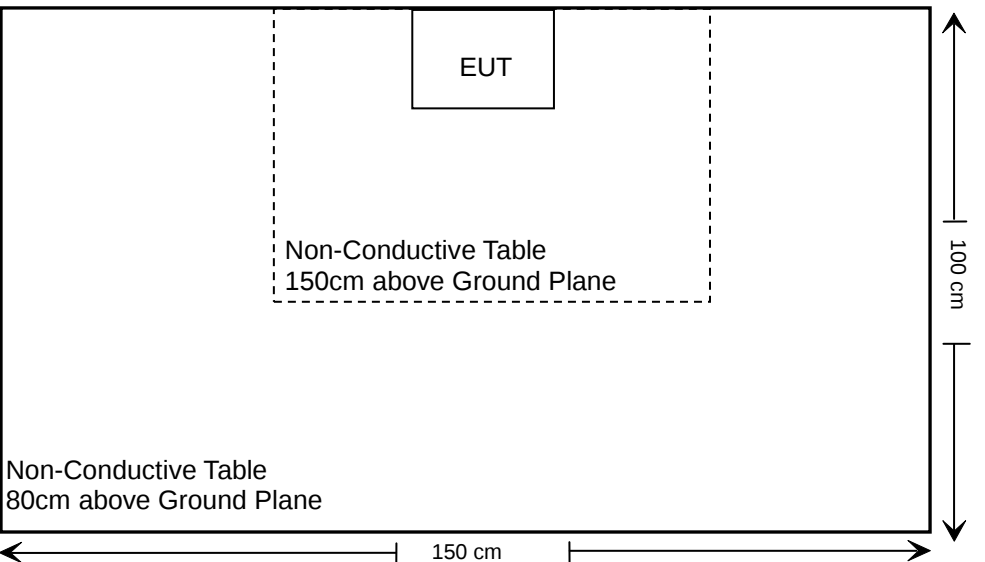
For Conducted Emission:



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)	AC Line Conducted Emissions	Compliance
§15.205, §15.209 §15.249(a)(c)(d)	Radiated Emissions & Outside of Band Emission	Compliance
§15.215(c)	20dB Emission Bandwidth	Compliance

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	100784	2025/09/17	2026/09/16
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2025/09/17	2026/09/16
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2025/09/18	2026/09/17
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)					
Radiated Spurious Emission Test(Below 1GHz)					
Rohde & Schwarz	Test Receiver	ESR	102725	2025/09/18	2026/09/17
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
Test Software: e3 191218 (V9)					
Radiated Spurious Emission Test(1-40GHz)/ 20dB Emission Bandwidth					
Rohde & Schwarz	Spectrum Analyzer	FSV40	101949	2025/09/17	2026/09/16
Decentest	Filter Switch Unit	DT7220FSU	DQ77927	2025/09/18	2026/09/17
Decentest	Multiplex Switch Test Control Set	DT7220CSU	DQ77924	2025/09/18	2026/09/17
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-A 1840	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)					

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Spurious Emission Test(Above 40GHz)					
Rohde & Schwarz	Spectrum Analyzer	FSV40	101949	2025/09/17	2026/9/16
Agilent	Waveguide Mixer	11970V	2521A011775	2023/6/21	2026/6/20
Flann Microwave	Horn Antenna	861V/385	737	2023/3/2	2026/3/1
Resenberger	Coaxial Cable	LU7-022-1000	N1050	2025/3/10	2026/3/9
Resenberger	Coaxial Cable	LU7-022-1000	N1051	2025/3/10	2026/3/9
Agilent	Spectrum Analyzer	E4440A	MY44303355	2025/10/10	2026/10/09
OML	Waveguide Mixer	WR19/M19HWD	U60314-1	2023/3/27	2026/3/26
OML	Horn Antenna	M19RH	11649-02	2023/3/27	2026/3/26
OML	Waveguide Mixer	WR12/M12HWD	E60125-1	2023/3/16	2026/3/15
OML	Horn Antenna	M12RH	E60125-2	2023/3/16	2026/3/15
OML	Waveguide Mixer	WR08/M08HWD	F60320-1	2023/3/16	2026/3/15
OML	Horn Antenna	M08RH	F60320-2	2023/3/16	2026/3/15
Resenberger	Coaxial Cable	LU7-022-1000	N1200	2025/3/17	2026/3/16

*** 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).

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.

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.

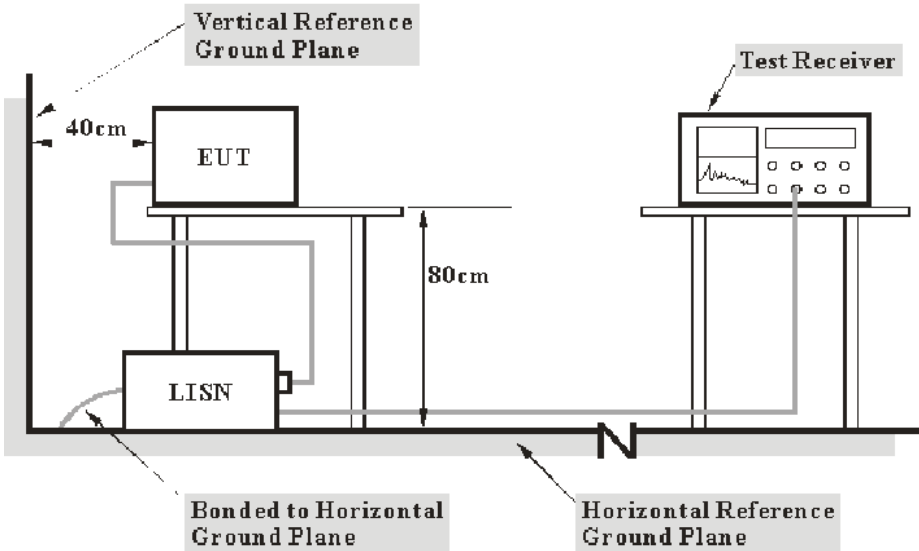
Result: Compliance.

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 (AMN) 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:

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

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

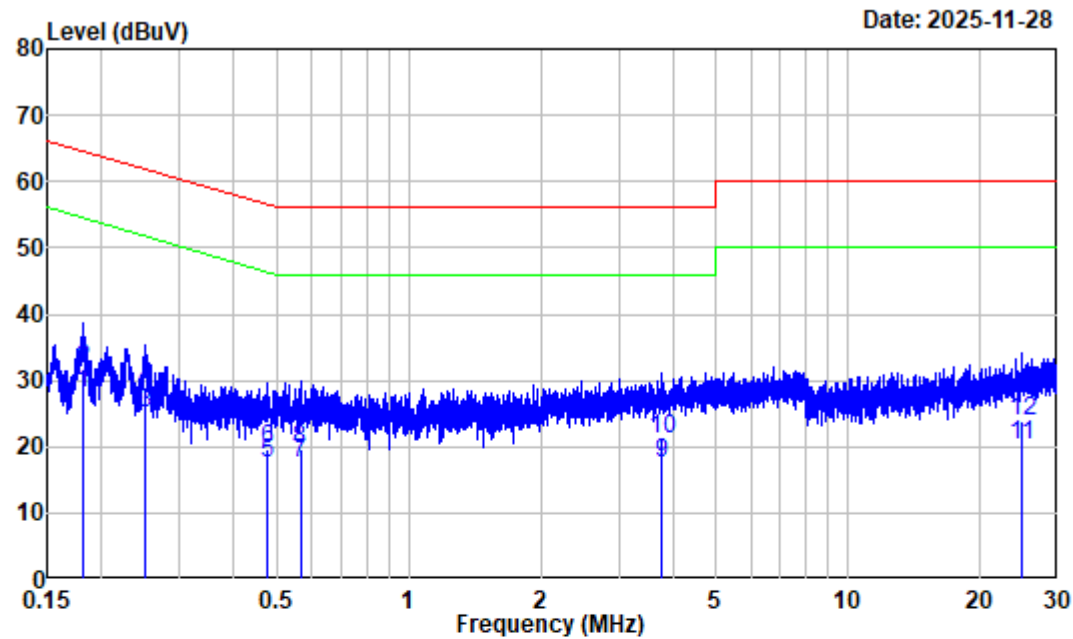
Test Data

Environmental Conditions

Temperataure:	24.6 °C
Relative Humidity:	39 %
ATM Pressure:	101.1 kPa
Test Engineer:	Jason Fan
Test Date:	2025-11-28
EUT Operation Mode:	Transmitting

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

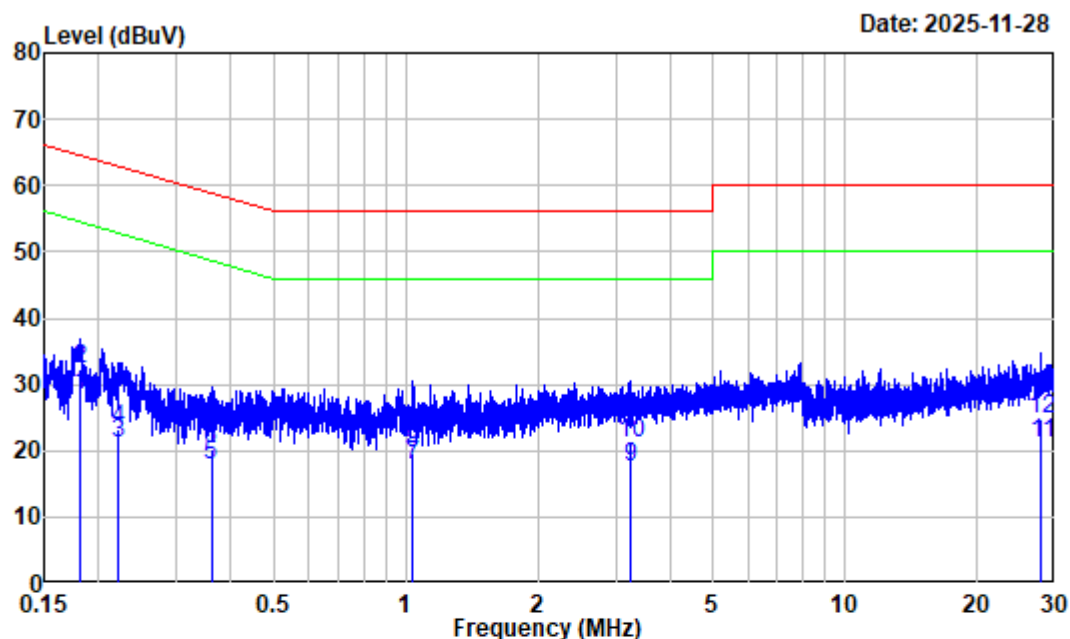
AC 120V/60Hz, Line:



Site : Shielding Room
Condition : Line
Job No. : 2504Y35605E-RF
Test Mode : Transmitting
Tester : Jason Fan
Receiver Setting: IF B/W 9kHz PK/AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.181	19.89	8.15	28.04	54.44	-26.40	Average
2	0.181	19.89	11.76	31.65	64.44	-32.79	QP
3	0.251	19.95	5.05	25.00	51.72	-26.72	Average
4	0.251	19.95	8.69	28.64	61.72	-33.08	QP
5	0.474	19.99	-2.45	17.54	46.44	-28.90	Average
6	0.474	19.99	-0.27	19.72	56.44	-36.72	QP
7	0.566	20.09	-2.71	17.38	46.00	-28.62	Average
8	0.566	20.09	-0.57	19.52	56.00	-36.48	QP
9	3.777	21.41	-3.98	17.43	46.00	-28.57	Average
10	3.777	21.41	-0.20	21.21	56.00	-34.79	QP
11	24.873	24.45	-4.08	20.37	50.00	-29.63	Average
12	24.873	24.45	-0.50	23.95	60.00	-36.05	QP

AC 120V/60Hz, Neutral:



Site : Shielding Room
 Condition : Neutral
 Job No. : 2504Y35605E-RF
 Test Mode : Transmitting
 Tester : Jason Fan
 Receiver Setting: IF B/W 9kHz PK/AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.181	19.83	8.65	28.48	54.45	-25.97	Average
2	0.181	19.83	12.62	32.45	64.45	-32.00	QP
3	0.222	19.92	1.12	21.04	52.73	-31.69	Average
4	0.222	19.92	3.31	23.23	62.73	-39.50	QP
5	0.360	19.91	-2.07	17.84	48.72	-30.88	Average
6	0.360	19.91	0.18	20.09	58.72	-38.63	QP
7	1.039	20.48	-2.67	17.81	46.00	-28.19	Average
8	1.039	20.48	-0.81	19.67	56.00	-36.33	QP
9	3.248	21.22	-3.79	17.43	46.00	-28.57	Average
10	3.248	21.22	-0.21	21.01	56.00	-34.99	QP
11	28.022	24.88	-3.64	21.24	50.00	-28.76	Average
12	28.022	24.88	-0.07	24.81	60.00	-35.19	QP

RADIATED EMISSIONS & OUTSIDE OF BAND EMISSION

Applicable Standard

FCC§15.205, §15.209, §15.249(a)(c)(d)

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:

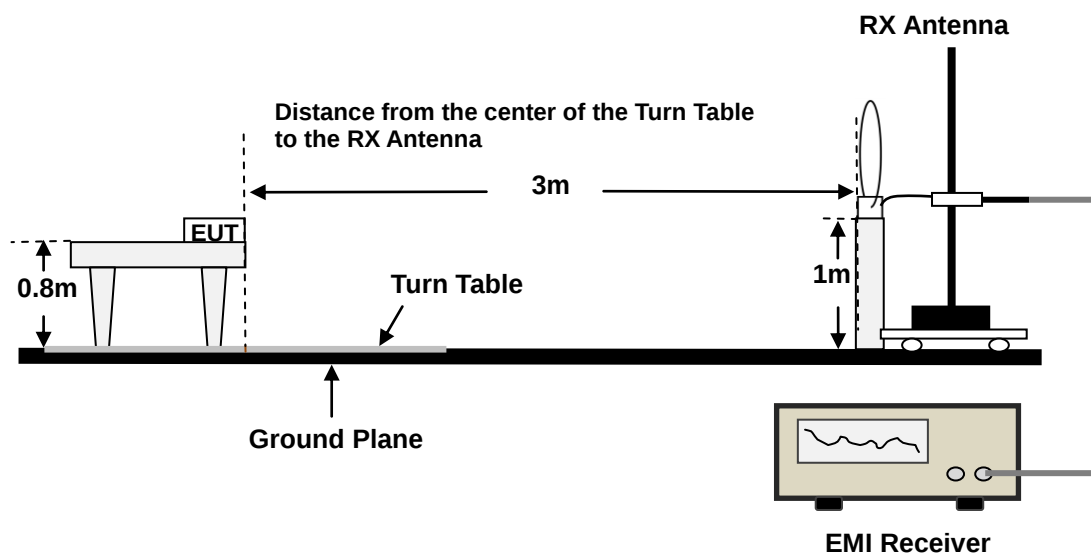
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

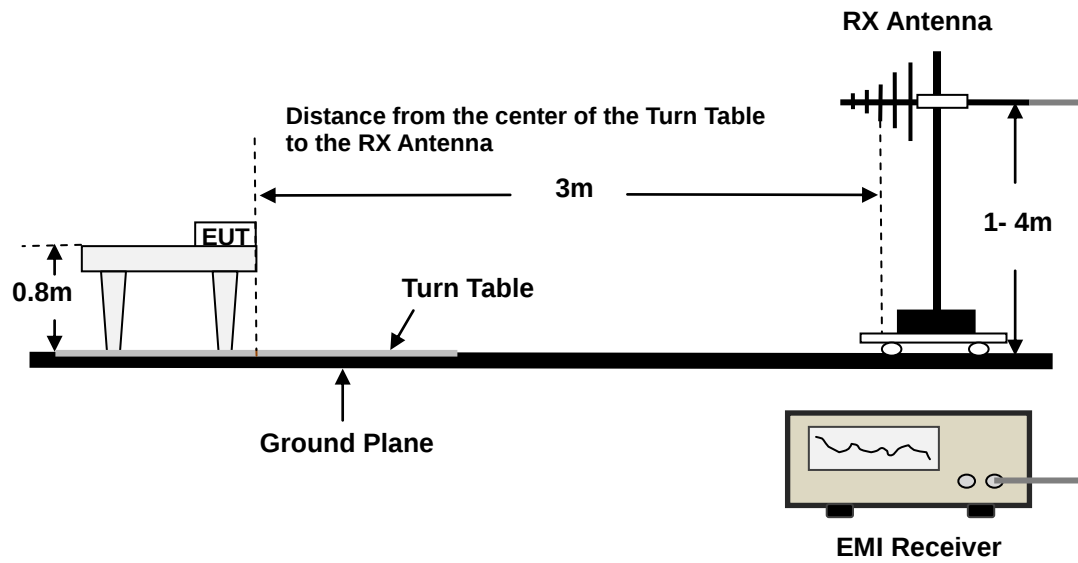
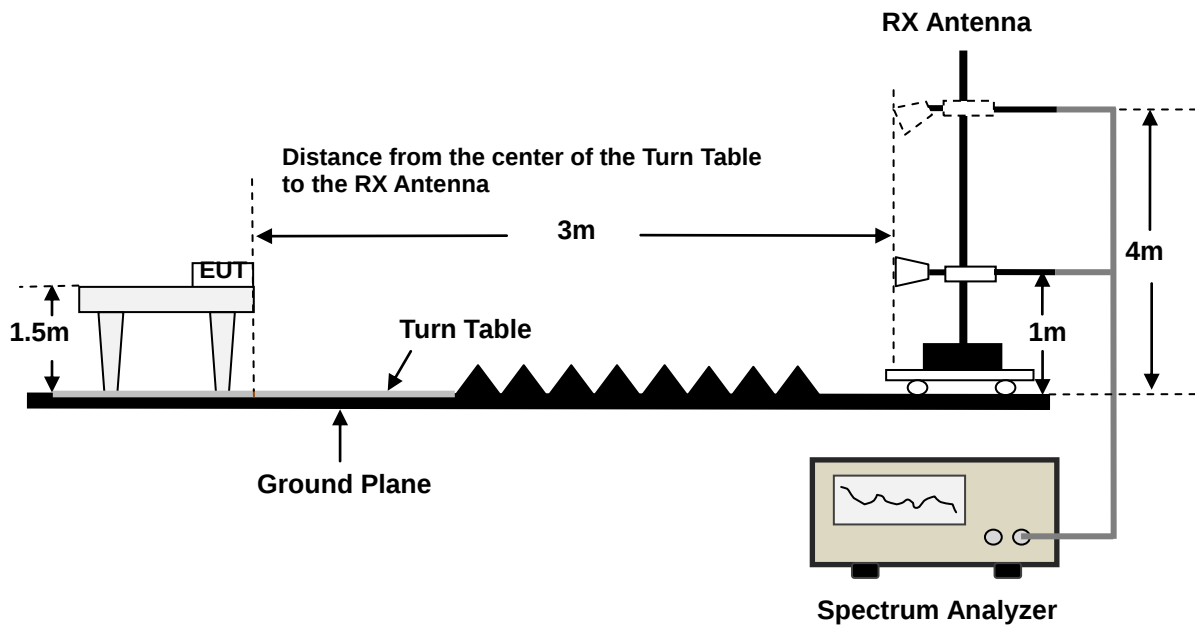
As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

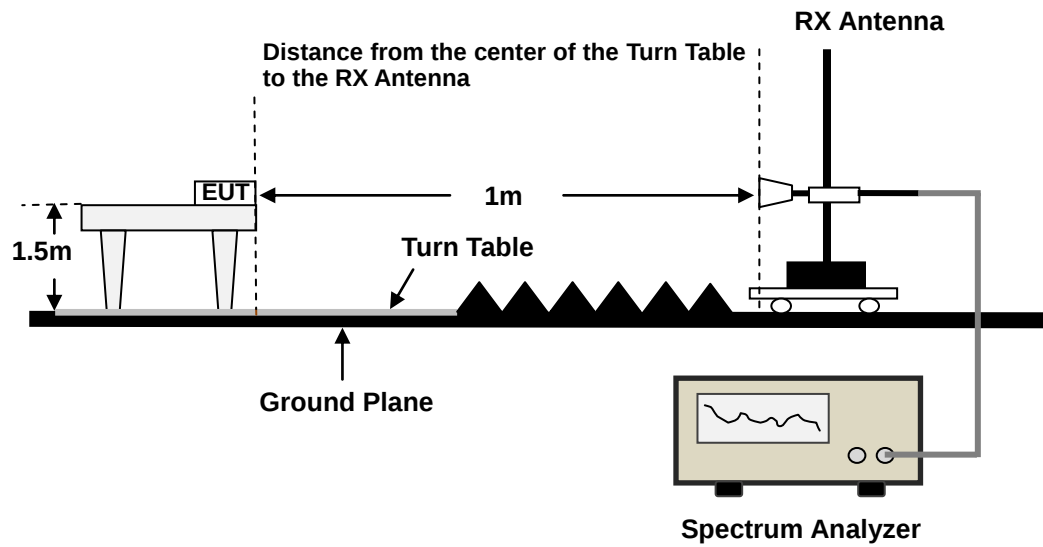
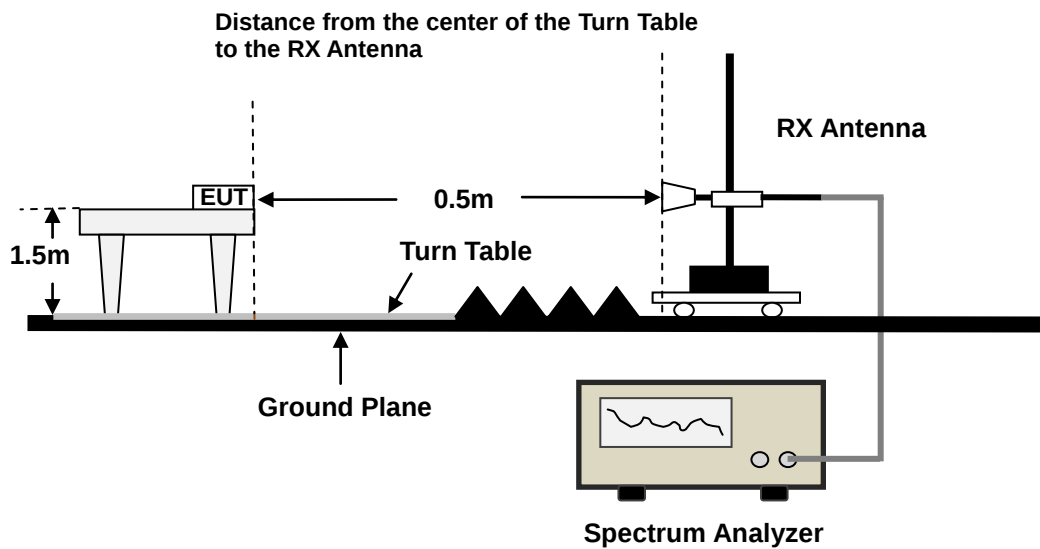
As per FCC§15.249 (d), Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

EUT Setup

9kHz - 30MHz:



30MHz - 1GHz:**1GHz - 40GHz:**

40GHz - 90GHz:**90GHz - 100GHz:**

Note: Above 40GHz, the antenna is scanned around the entire perimeter surface of the EUT, in both horizontal and vertical polarizations, at the distance of 1.0 m from 40 GHz to 90 GHz, and 0.5 m from 90 GHz to 100 GHz.

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 100GHz.

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 -100GHz:

Pre-scan:

Measurement	RBW	Video B/W	Detector
PK	1MHz	3MHz	PK
AV	1MHz	5kHz	PK

Final measurement for emission identified during the pre-scan:

Measurement	RBW	Video B/W	Detector
PK	1MHz	3MHz	PK
AV	1MHz	10Hz	PK

Note 1: For 30MHz-1GHz, when the test result of Peak was more than 6dB below the limit of QP, just the Peak value was recorded.

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.

Note 3: Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-30MHz except 9-90 kHz, 110-490 kHz, employing an average detector.

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).

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

where

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

For Radiated Emissions, after pre-scan tabletop use and rack mounting, the worst case as setup photos was recorded.

9kHz-1GHz

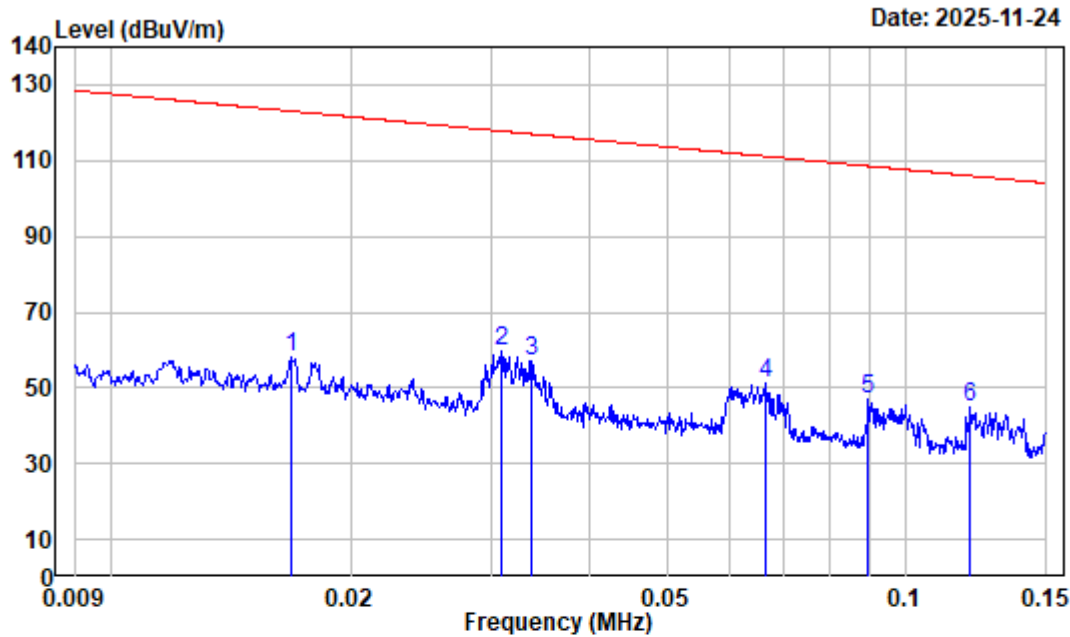
Environmental Conditions

Temperature:	25.4 °C
Relative Humidity:	54 %
ATM Pressure:	101.1 kPa
Test Engineer:	Colin Lin
Test Date:	2025-11-24
EUT Operation Mode:	Transmitting

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

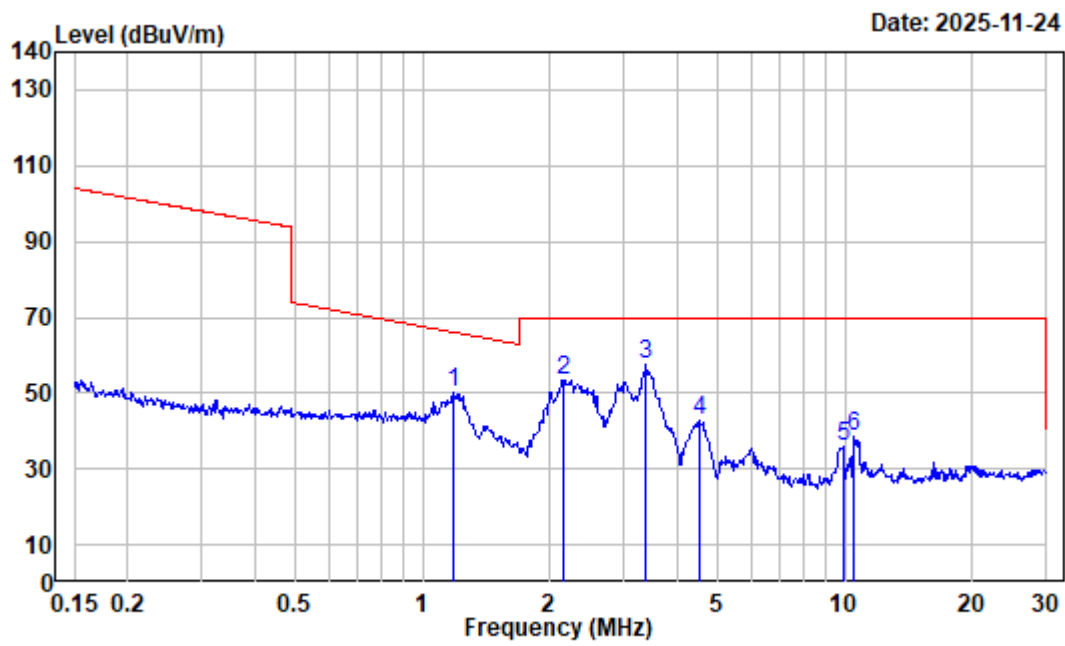
Note: The Loop Antenna were tested in parallel, perpendicular, and ground-parallel. The worst orientation was parallel and the data was recorded in report.

9kHz~30MHz:



Site : Chamber
Condition : 3m
Job No. : 2504Y35605E-RF
Polarization : Parallel Tester: Colin Lin
Test Mode : Transmitting
Receiver Setting: RBW:300Hz VBW:1kHz

	Freq Factor		Read Level		Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.017	32.79	25.35	58.14	123.07	-64.93	Peak
2	0.031	26.76	33.14	59.90	117.79	-57.89	Peak
3	0.034	26.17	31.02	57.19	117.03	-59.84	Peak
4	0.067	20.42	30.78	51.20	111.12	-59.92	Peak
5	0.090	17.52	29.40	46.92	108.55	-61.63	Peak
6	0.120	15.51	29.54	45.05	105.99	-60.94	Peak



Site : Chamber

Condition : 3m

Job No. : 2504Y35605E-RF

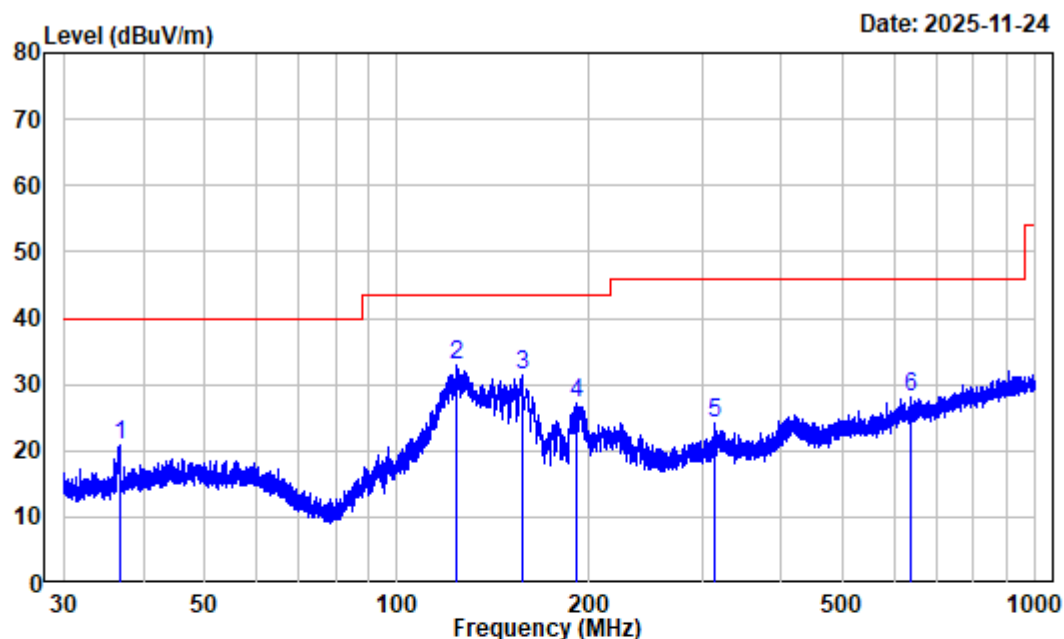
Polarization : Parallel Tester: Colin Lin

Test Mode : Transmitting

Receiver Setting: RBW:10kHz VBW:30kHz

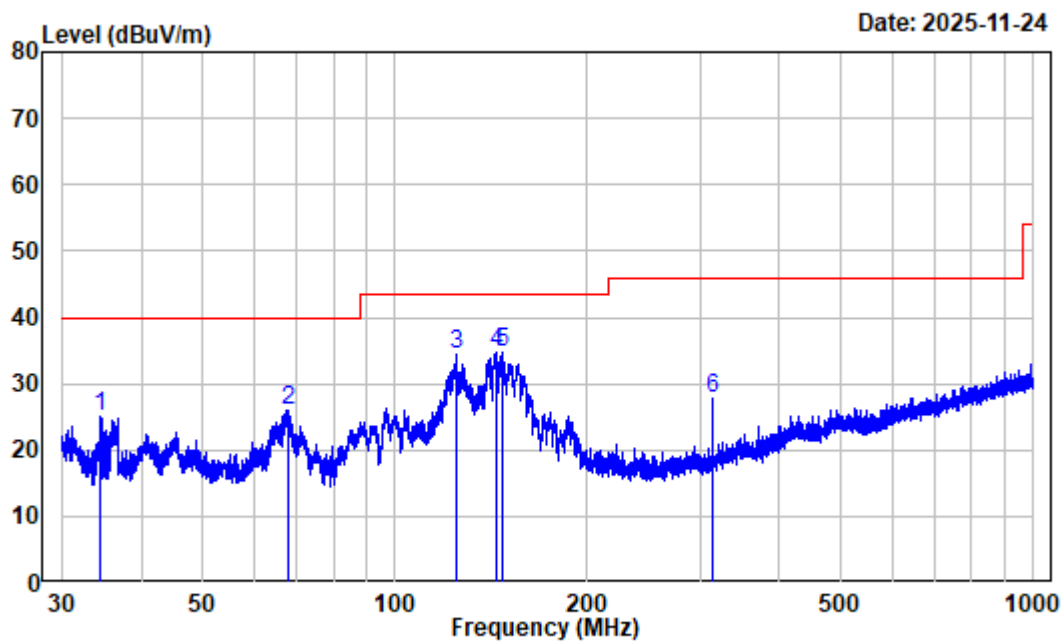
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1.178	-2.46	52.76	50.30	66.02	-15.72	Peak
2	2.155	-5.45	58.80	53.35	69.54	-16.19	Peak
3	3.381	-6.01	63.35	57.34	69.54	-12.20	Peak
4	4.525	-6.30	49.21	42.91	69.54	-26.63	Peak
5	9.913	-5.35	41.28	35.93	69.54	-33.61	Peak
6	10.508	-5.22	43.76	38.54	69.54	-31.00	Peak

30MHz~1GHz:



Site : Chamber
Condition : 3m HORIZONTAL
Job No. : 2504Y35605E-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	36.686	-11.32	32.04	20.72	40.00	-19.28	Peak
2	124.242	-14.08	47.02	32.94	43.50	-10.56	Peak
3	157.076	-14.32	45.85	31.53	43.50	-11.97	Peak
4	190.489	-10.33	37.59	27.26	43.50	-16.24	Peak
5	314.928	-8.62	32.65	24.03	46.00	-21.97	Peak
6	637.250	-1.53	29.57	28.04	46.00	-17.96	Peak



Site : Chamber

Condition : 3m VERTICAL

Job No. : 2504Y35605E-RF Tester: Colin Lin

Test Mode : Transmitting

Receiver Setting: RBW:100kHz VBW:300kHz

	Freq Factor		Read Level		Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	Line	Limit	
1	34.593	-11.65	36.57	24.92	40.00	-15.08	Peak
2	67.943	-13.63	39.66	26.03	40.00	-13.97	Peak
3	124.952	-14.22	48.56	34.34	43.50	-9.16	Peak
4	143.893	-14.96	49.62	34.66	43.50	-8.84	Peak
5	147.275	-14.83	49.44	34.61	43.50	-8.89	Peak
6	314.928	-8.62	36.25	27.63	46.00	-18.37	Peak

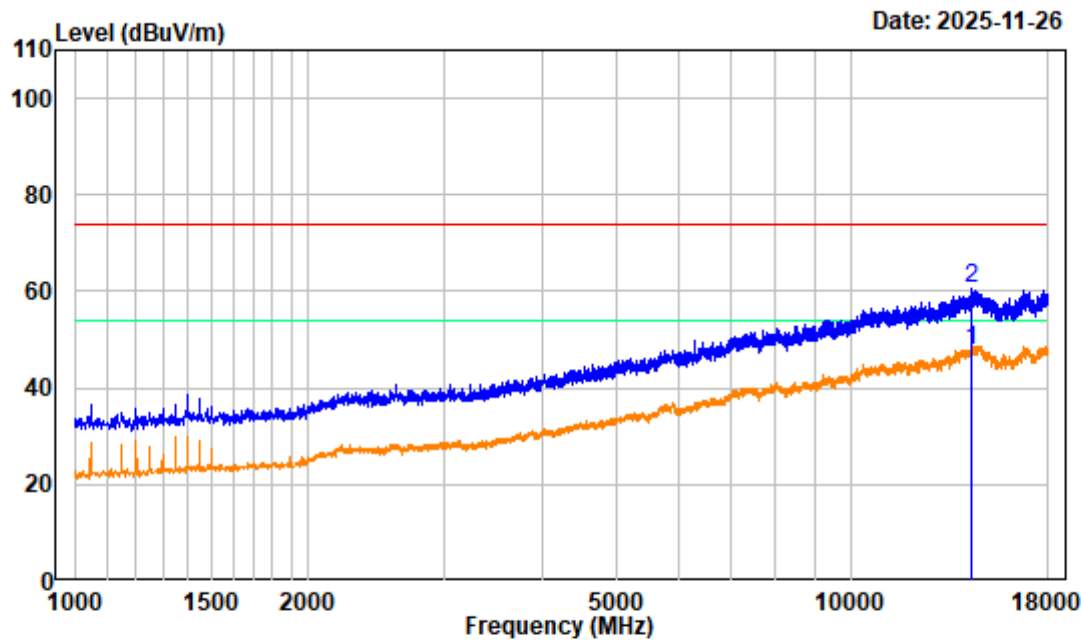
1GHz-100GHz

Environmental Conditions

Temperature:	24.3 °C
Relative Humidity:	51 %
ATM Pressure:	101.1 kPa
Test Engineer:	Roger Ling
Test Date:	2025-11-26
EUT Operation Mode:	Transmitting

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

Radar 1GHz-18GHz_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504Y35605E-RF

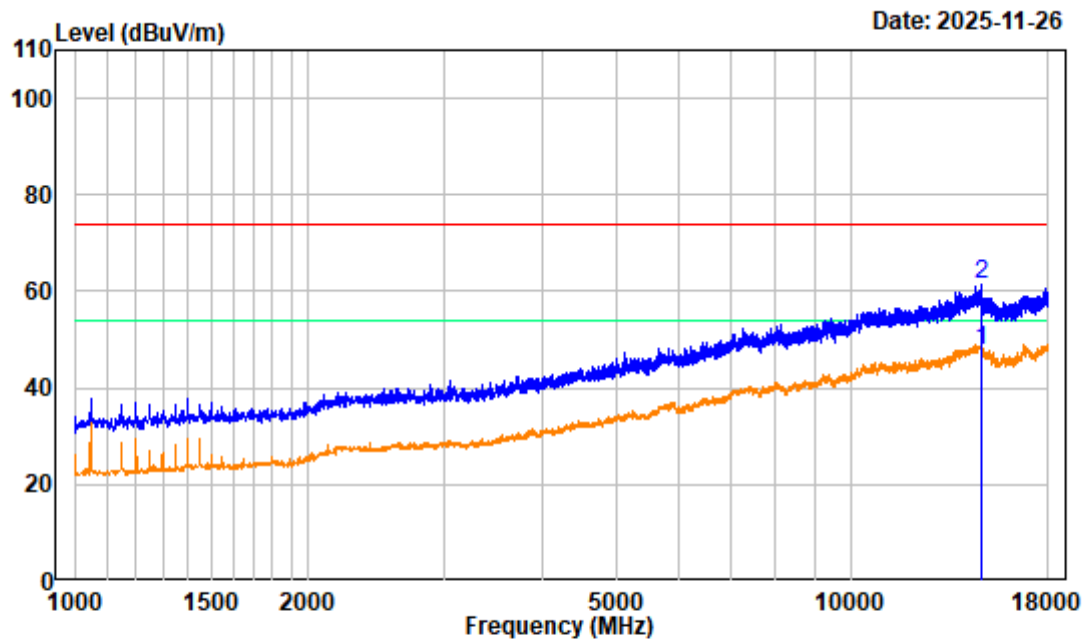
Test Mode : TransmittingTester:Roger Ling

Note : Radar 1GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq Factor		Read Level		Limit	Over	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	14349.250	8.72	39.17	47.89	54.00	-6.11 Average
2	14349.250	8.72	51.72	60.44	74.00	-13.56 Peak

Radar 1GHz-18GHz_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504Y35605E-RF

Test Mode : Transmitting

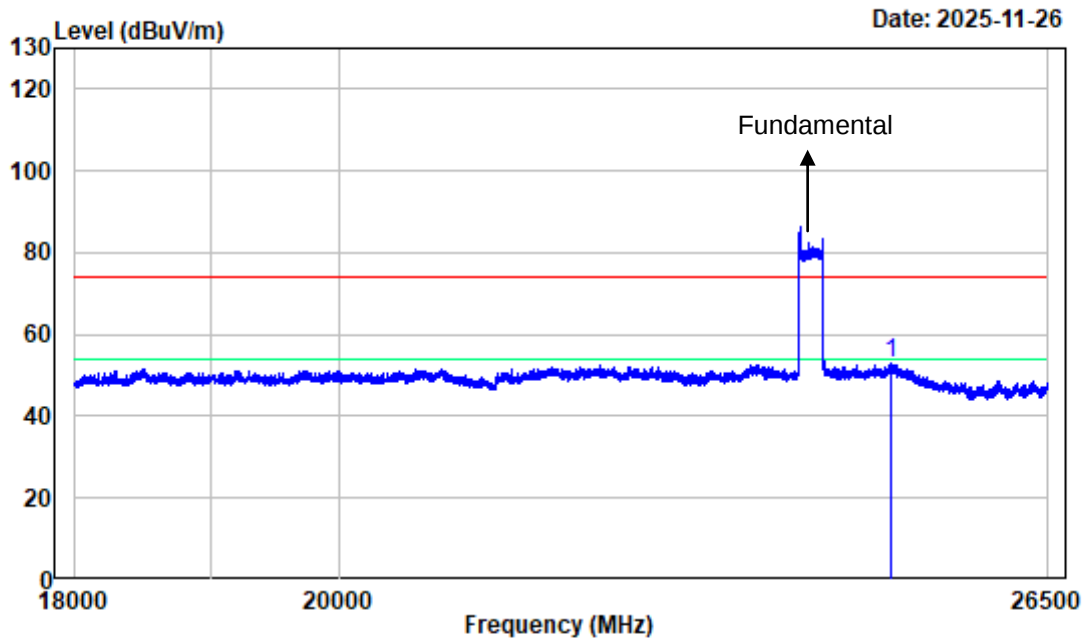
Note : Radar 1GHz-18GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Tester:Roger Ling

Freq Factor		Read Level		Limit	Over	Remark
MHz	dB/m	dBuV	dBuV/m	Line	Limit	
1 14761.500	8.01	39.74	47.75	54.00	-6.25	Average
2 14761.500	8.01	53.29	61.30	74.00	-12.70	Peak

Radar 18GHz-26.5GHz_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504Y35605E-RF

Test Mode : Transmitting

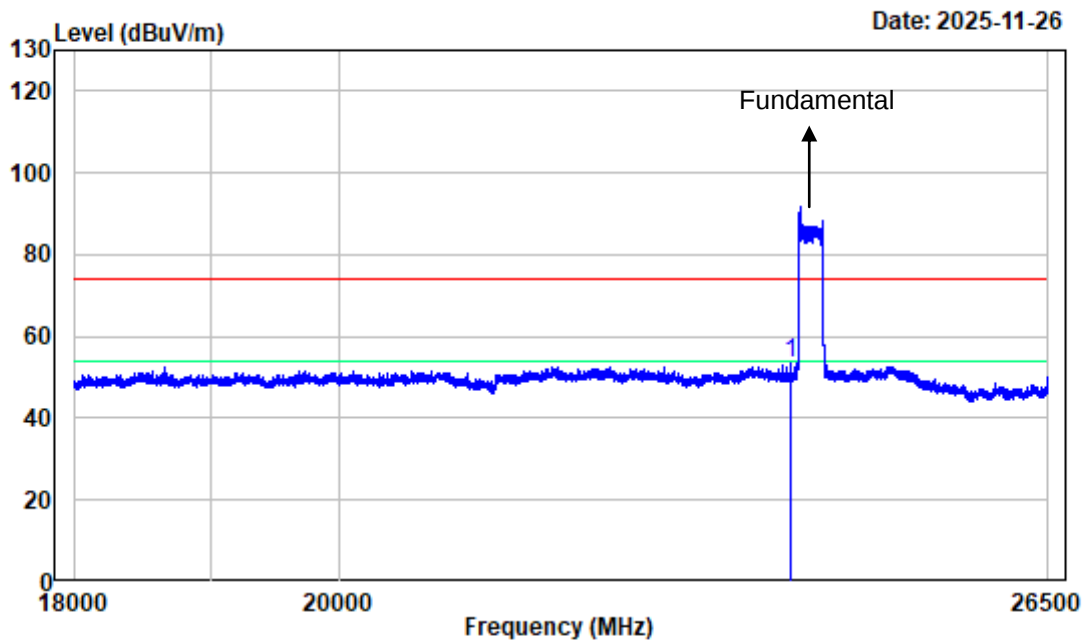
Note : Radar 18GHz-26.5GHz

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

Tester:Roger Ling

Freq Factor		Read Level		Limit	Over	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 24899.880	4.10	48.91	53.01	74.00	-20.99	Peak

Radar 18GHz-26.5GHz_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504Y35605E-RF

Test Mode : Transmitting

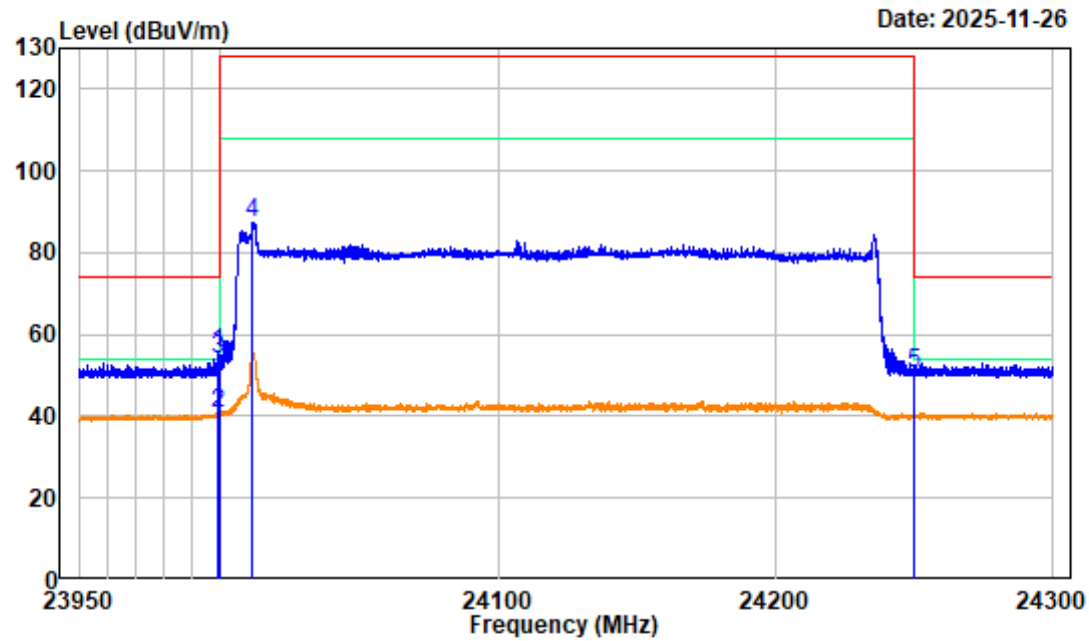
Note : Radar 18GHz-26.5GHz

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

Tester:Roger Ling

Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 23931.940	2.51	50.77	53.28	74.00	-20.72	Peak

Radar 24GHz-24.25GHz_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504Y35605E-RF

Test Mode : Transmitting

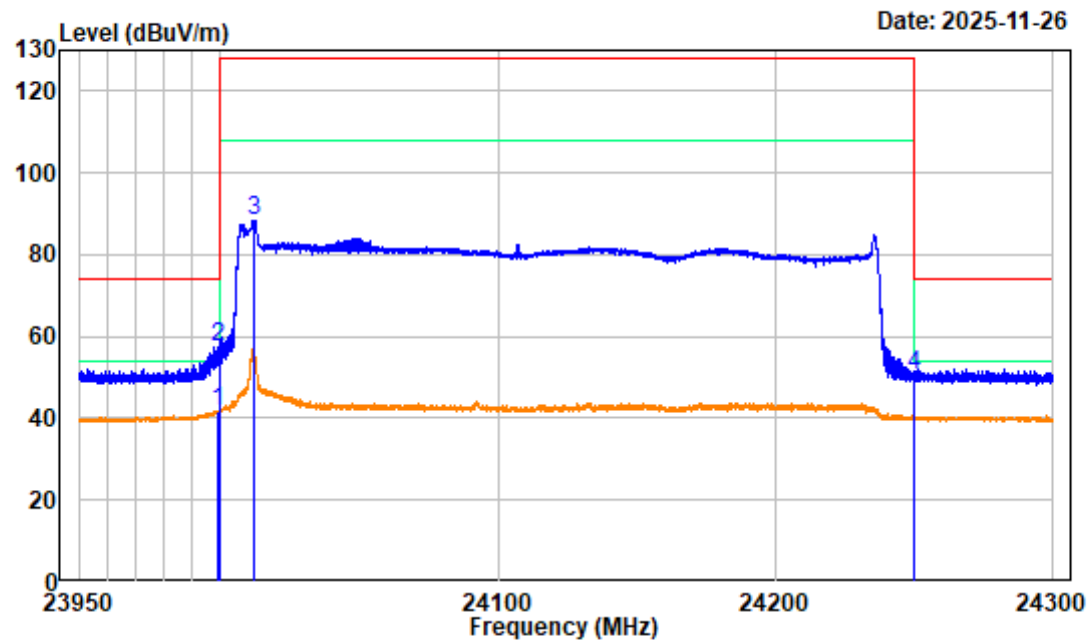
Tester:Roger Ling

Note : Radar 24GHz-24.25GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq Factor		Read	Limit	Over	Remark
		Level	Level	Line	
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1 23999.660	2.56	52.99	55.55	74.00	-18.45 Peak
2 23999.660	2.56	38.11	40.67	54.00	-13.33 Average
3 24000.000	2.56	51.28	53.84	74.00	-20.16 Peak
4 24012.130	2.58	84.62	87.20	127.96	-40.76 Peak
5 24250.000	2.86	47.85	50.71	74.00	-23.29 Peak

Radar 24GHz-24.25GHz_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504Y35605E-RF

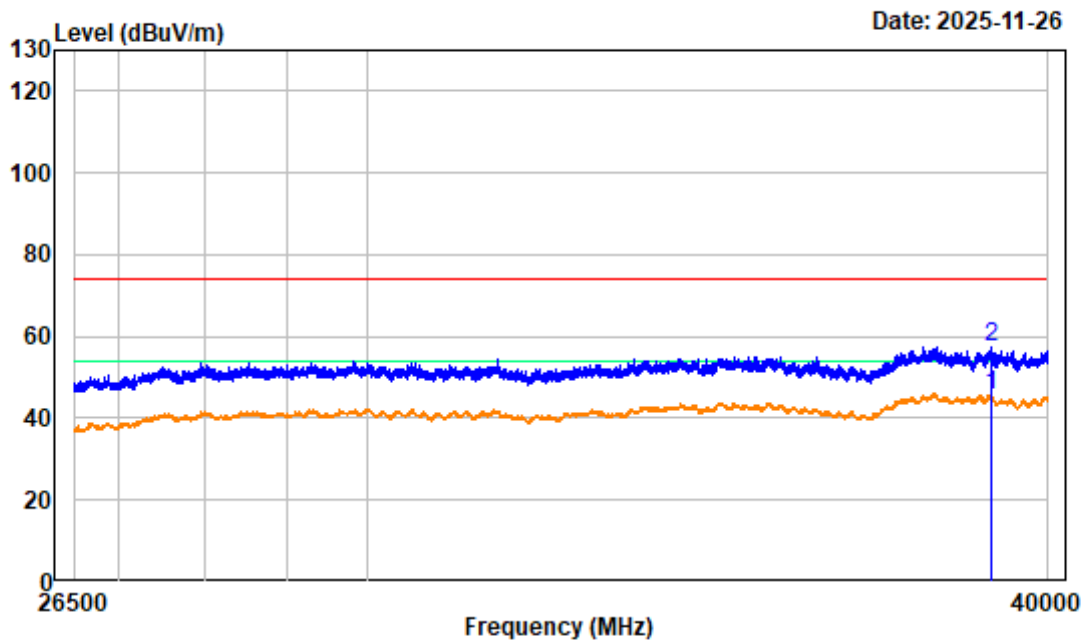
Test Mode : TransmittingTester:Roger Ling

Note : Radar 24GHz-24.25GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 23999.830	2.56	38.91	41.47	54.00	-12.53	Average
2 24000.000	2.56	54.70	57.26	74.00	-16.74	Peak
3 24012.300	2.58	85.69	88.27	127.96	-39.69	Peak
4 24250.000	2.86	47.61	50.47	74.00	-23.53	Peak

Radar 26.5GHz-40GHz_HORIZONTAL



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504Y35605E-RF

Test Mode : Transmitting

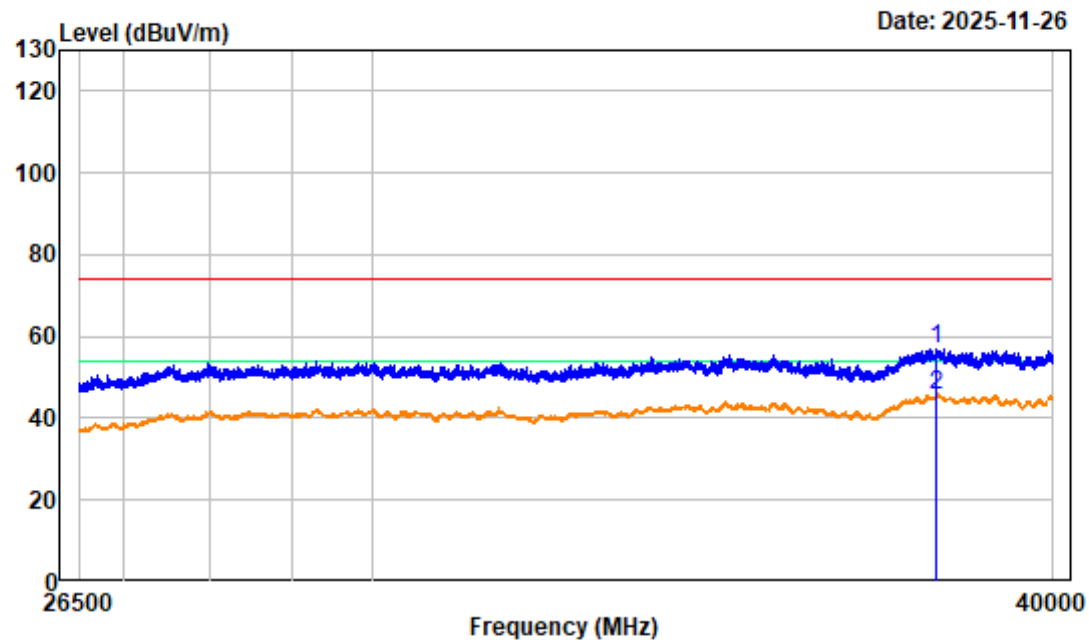
Note : Radar 26.5GHz-40GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Tester:Roger Ling

Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 39039.810	6.09	39.60	45.69	54.00	-8.31	Average
2 39039.810	6.09	51.36	57.45	74.00	-16.55	Peak

Radar 26.5GHz-40GHz_VERTICAL



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504Y35605E-RF

Test Mode : Transmitting

Note : Radar 26.5GHz-40GHz

SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

Tester:Roger Ling

Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 38071.190	7.79	49.27	57.06	74.00	-16.94	Peak
2 38071.190	7.79	38.05	45.84	54.00	-8.16	Average

Radar 40GHz-100GHz

Frequency (GHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
48.250	45.69	PK	H	41.75	77.90	87.96	-10.06
48.250	33.21	AV	H	41.75	65.42	67.96	-2.54
48.250	45.57	PK	V	41.75	77.78	87.96	-10.18
48.250	33.17	AV	V	41.75	65.38	67.96	-2.58
72.375	42.75	PK	H	44.79	78.00	87.96	-9.96
72.375	30.43	AV	H	44.79	65.68	67.96	-2.28
72.375	42.61	PK	V	44.79	77.86	87.96	-10.10
72.375	30.25	AV	V	44.79	65.50	67.96	-2.46

Note 1: Result = Reading + Factor- Distance extrapolation Factor

Note 2: Margin = Limit – Result

Note 3: The other spurious emission which is in the noise floor level was not recorded.

For 40-90GHz:

Distance extrapolation Factor = $20 \log (\text{specific distance [3m]}/\text{test distance [1m]})$ dB= 9.54 dB

For 90-100GHz:

Distance extrapolation Factor = $20 \log (\text{specific distance [3m]}/\text{test distance [0.5m]})$ dB= 15.56 dB

20dB EMISSION BANDWIDTH

Applicable Standard

According to FCC§15.215(c),

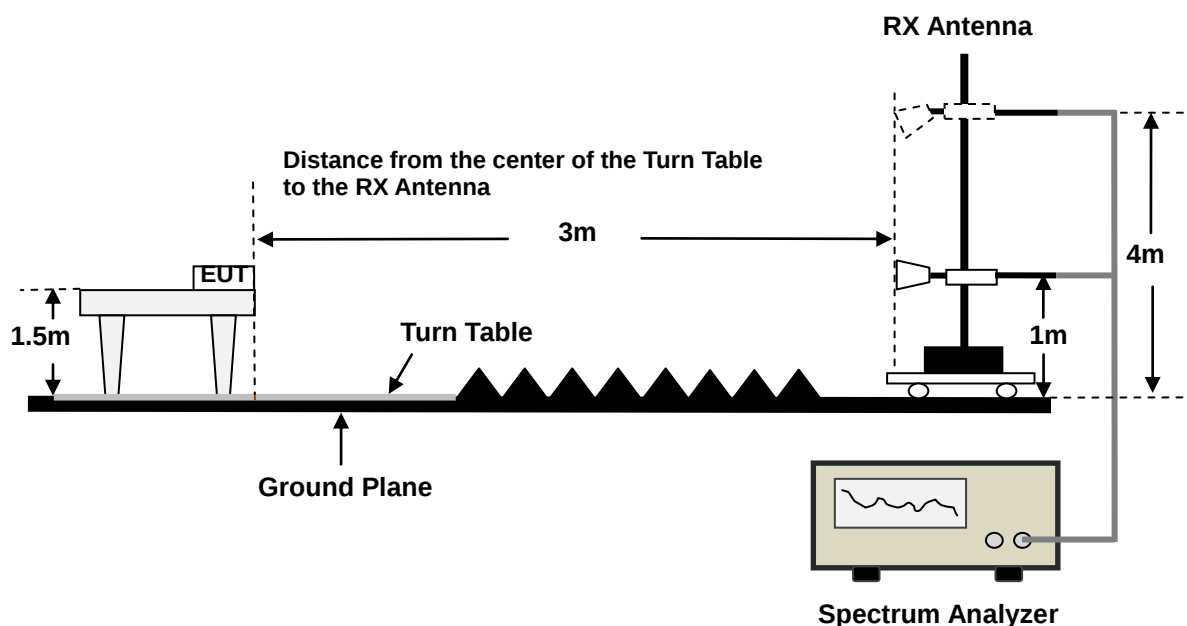
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific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

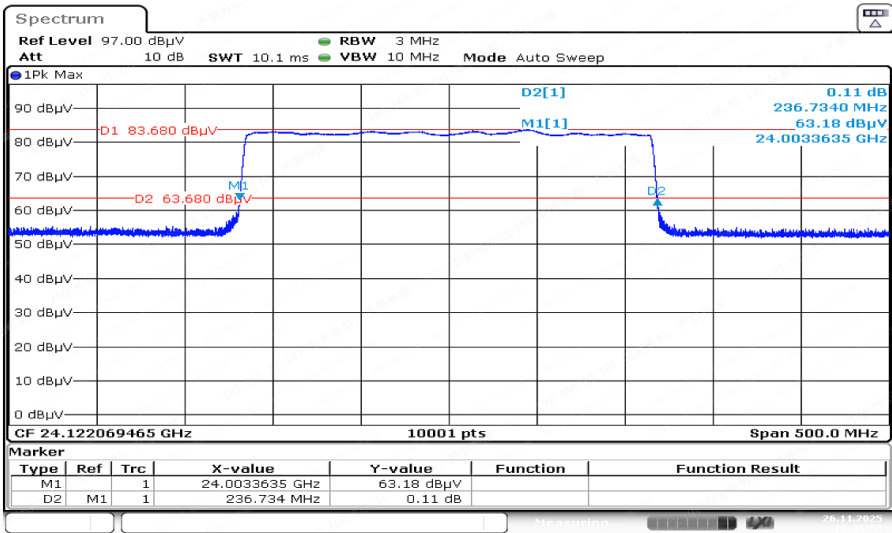
Environmental Conditions

Temperature:	24.3 °C
Relative Humidity:	51 %
ATM Pressure:	101.1 kPa
Test Engineer:	Roger Ling
Test Date:	2025-11-26
EUT Operation Mode:	Transmitting

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

20 dB Emission Bandwidth

Mode	20 dB Bandwidth (MHz)	F _L (GHz)	Limit (GHz)	F _H (GHz)	Limit (GHz)
Sweep	236.734	24.003	24	24.240	24.25



ProjectNo.:2504Y35605E-RF Tester:Roger Ling
Date: 26.NOV.2025 13:49:51

EXHIBIT A-EUT PHOTOGRAPHS

Please refer to the Attachment No.1 2504Y35605E-RF EUT External Photos and Attachment No.2 2504Y35605E-RF EUT Internal Photos.

EXHIBIT B-TEST SETUP PHOTOGRAPHS

Please refer to the Attachment No.3 2504Y35605E-RF-00A Test Photos.

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