

TEST REPORT

Applicant Name: Anker Innovations Limited
Address: Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Report Number: 2504A34770E-RFC
FCC ID: 2AOKB-T86C1
IC: 23451-T86C1

Test Standard (s)

FCC PART 15.255
RSS-210 ISSUE 11, JUNE 25, 2024
RSS-GEN ISSUE 5, FEBRUARY 2021 AMENDMENT 2

Sample Description

Product Name: eufy Wall Light Cam S4
Model No.: T86C1
Trade Mark: eufy
Date Received: 2025-12-25
Report Date: 2026-02-01

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

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Approved By:

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504A34770E-RFC	Original Report	2026-02-01

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name	eufy Wall Light Cam S4
Tested Model	T86C1
HVIN	T86C1
Voltage Range [#]	DC 5V from the adapter or Solar panel DC 3.6V from rechargeable battery

Frequency Range	57.1GHz-60.5GHz
Maximum EIRP (actual test result)	17.72 dBm
Modulation Technique	FMCW
Chirp Time [#]	57.5μs
Emission Designator [#]	N0N
Antenna Specification [#]	Array Antenna, Gain: 7.17 dBi (It is provided by the applicant.)
Sample Serial Number	3F4N-1 (Assigned by ATC, Shenzhen)
Sample/EUT Status	Good condition

Objective

This test report is in accordance with Part 2-Subpart J, Part 15- Subparts A & Subparts C of the Federal Communication Commission rules. RSS-GEN Issue 5, Feb. 2021 Amendment 2 and RSS-210, Issue 11, June 25, 2024 of the Innovation, Science and Economic Development Canada rules.

Test Methodology

All tests and measurements indicated in this document were performed in accordance FCC Part 15.255, 15.31(c); ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024▲, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices; KDB 364244 D01 Meas 15.255 Radars v01r01; RSS-GEN Issue 5, Feb. 2021 Amendment 2 and RSS-210, Issue 11, June 25, 2024.

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.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements. The Registration Number is 30241.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5 %
RF Frequency		0.064×10^{-7}
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
	140GHz - 220GHz	6.0 dB
	220GHz - 325GHz	7.4 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 production version with highest transmitter activity (on time), which was provided by the manufacturer. According to 15.31(c), KDB 364244 D01 Meas 15.255 Radars v01r01 and RSS-210 Annex J, the device tested at Swept mode for FMCW modulation.

Test Mode
Test Mode 1: Adapter charging
Test Mode 2: Solar panel power supply
The EUT has two charging methods. The AC line conducted emissions test only tests mode 1, while the radiated spurious emissions (below 1 GHz) test tests both modes.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

No software was used in test. The EUT transmit when EUT was power up.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
XIAOMI	Adapter	MDY-08-ES Input:100-240V~50/60Hz,0.5A Output:DC5V-3.0A 15W	Unknown

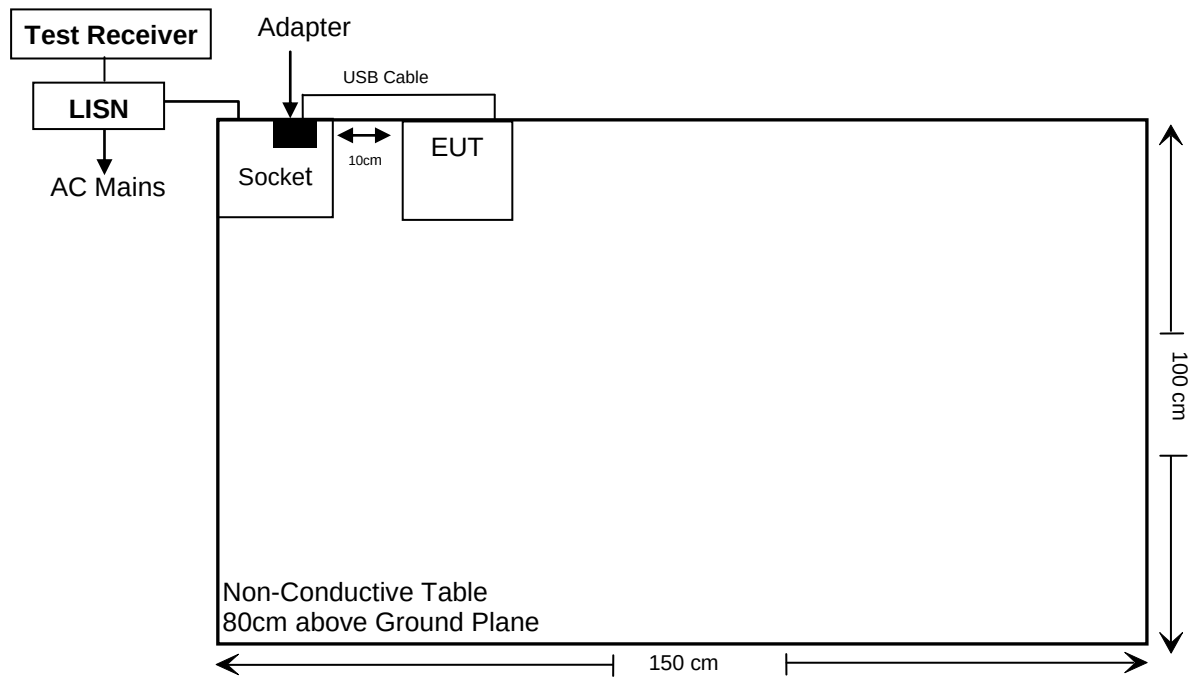
External I/O Cable

Cable Description	Shielding Type	Length (m)	From Port	To
USB-C Cable 1	No	0.8	Adapter	EUT
USB-C Cable 2	No	0.08	EUT	Solar panel

Block Diagram of Test Setup

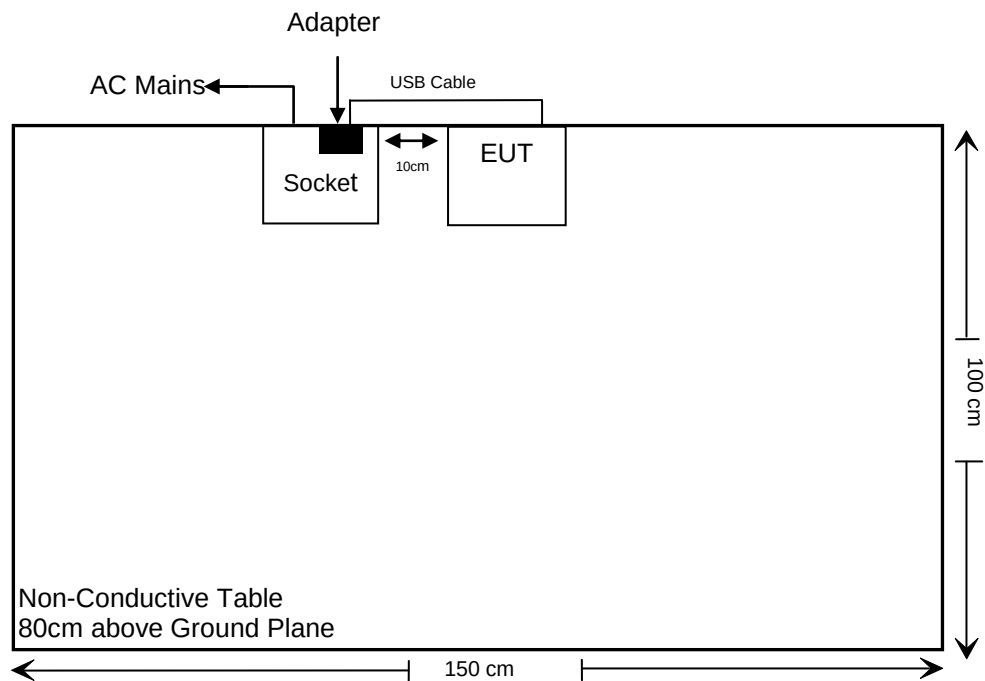
For Conducted Emission:

Test Mode1:

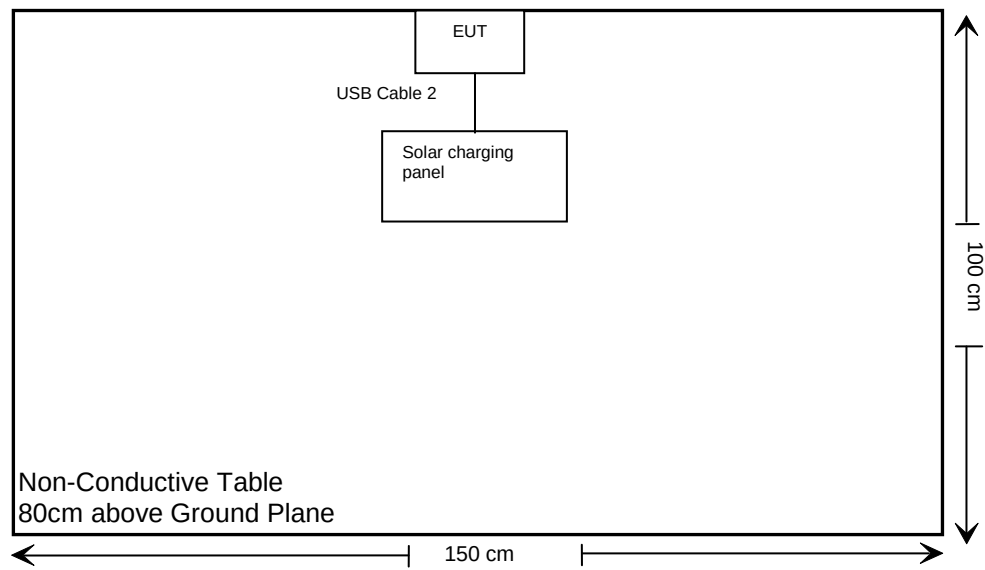


For Radiated Emission(Below 1GHz):

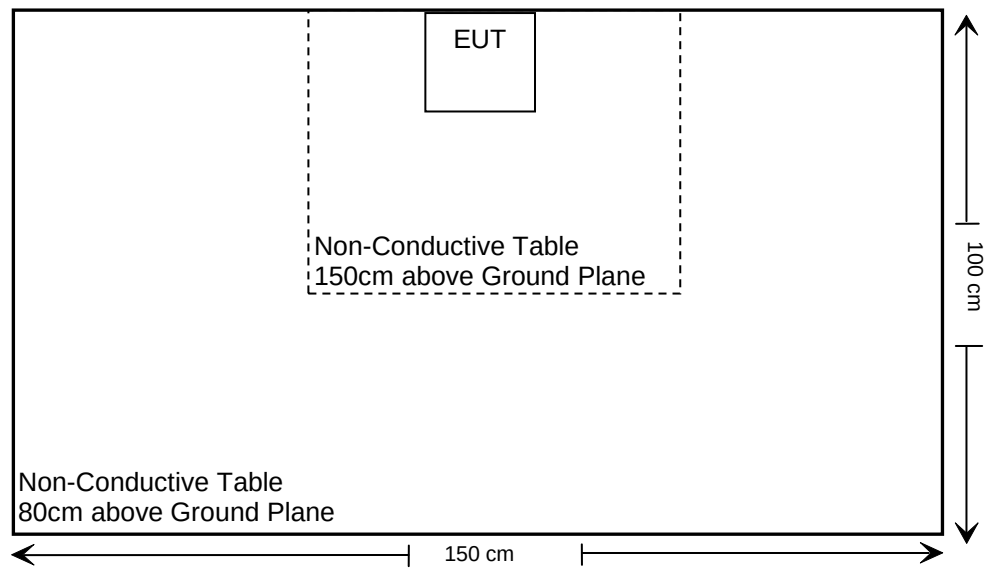
Test Mode1:



Test Mode 2:



For Radiated Emission Above 1GHz:



SUMMARY OF TEST RESULTS

FCC Items	ISED Items	Description of Test	Result
§15.203	RSS-Gen Clause 6.8	Antenna Requirement	Compliant
§15.207(a)	RSS-Gen Clause 8.8	AC Line Conducted Emissions	Compliant
§15.255(c)(2)	RSS-210 Annex J	Peak EIRP and Transmitter Off-times	Compliant
§15.215 §15.255(e)	RSS-Gen Clause 6.7	Occupied Bandwidth	Compliant
§15.205 §15.209 §15.255(d)	RSS-Gen Clause 8.10 RSS-210, Annex J.4	Radiated Spurious Emissions	Compliant
§15.255(f)	RSS-210 Annex J.6	Frequency Stability	Compliant
§15.255(h)	RSS-210 Annex J.7	Group Installation	Compliant

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(1GHz to 40GHz)					
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-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)					

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
Talent Microwave	U-Band Low Noise Amplifier	TMLA-040060-4550-19-N	25010762	2023/3/27	2026/3/26
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
Talent Microwave	Low Noise Amplifier	TMLA-060090-3840-12	25040458	2023/3/16	2026/3/15
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
Talent Microwave	Low Noise Amplifier	TMLA-090140-4045-08	25030924	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
Talent Microwave	G-Band Subharmonic Mixer	TLHM-140220-0240-05	G60121-1	2023/3/16	2026/3/15
OML	Waveguide Mixer	WR05/M05HWD	G60121-1	2023/3/16	2026/3/15
Talent Microwave	Low Noise Amplifier	TMLA-140220-1860-05	25050387	2023/3/16	2026/3/15
OML	Horn Antenna	M05RH	G60121-2	2023/3/16	2026/3/15
Resenberger	Coaxial Cable	LU7-022-1000	N1200	2025/3/17	2026/3/16
BACL	Temp. & Humid. Chamber	BTH-150-40	30192	2025/09/18	2026/09/17
UNI-T	DC Power Supply	UTP1306S	2109D0903324	2025/03/26	2026/03/25

*** 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

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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- Antenna must be permanently attached to the unit.
- Antenna must use a unique type of connector to attach to the EUT.
- Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

RSS-Gen Clause 6.8

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

Antenna Connector Construction

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

Type	Antenna Gain [#]	Impedance
Array	7.17dBi	50Ω

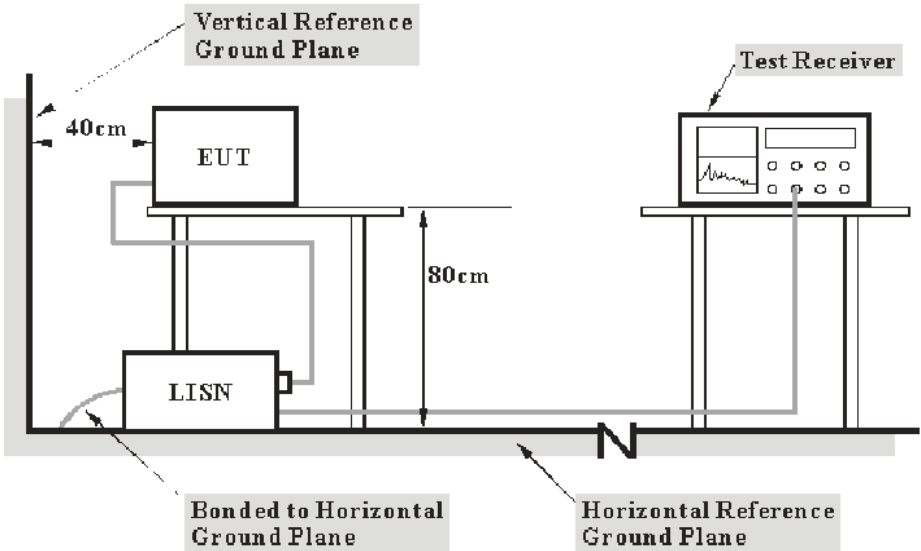
Result: Compliance.

AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a) & RSS-Gen Clause 8.8

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, RSS-Gen limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

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

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

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

Test Procedure

During the conducted emission test, the adapter was connected to the 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:

Factor = LISN VDF + Cable Loss + 10dB 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:

Over Limit = Level - Limit

Level = Read Level + Factor

Test Data

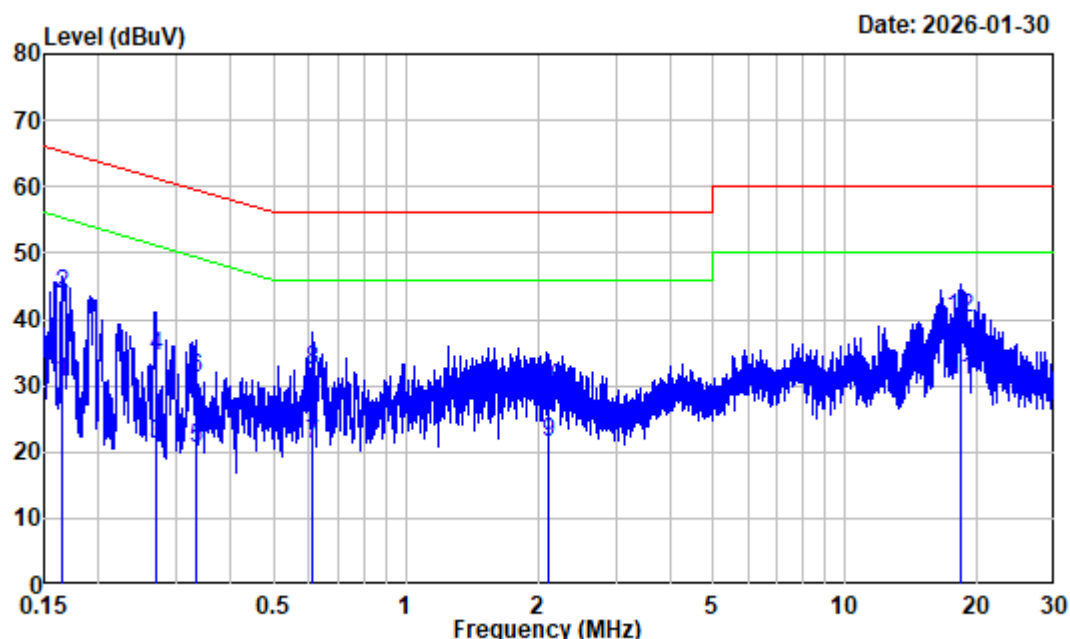
Environmental Conditions

Temperature:	21.6 °C
Relative Humidity:	52 %
ATM Pressure:	101.8 kPa
Test Engineer:	Serein Wen
Test Date:	2026-01-30
EUT Operation Mode:	Test mode 1

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

Test Mode 1

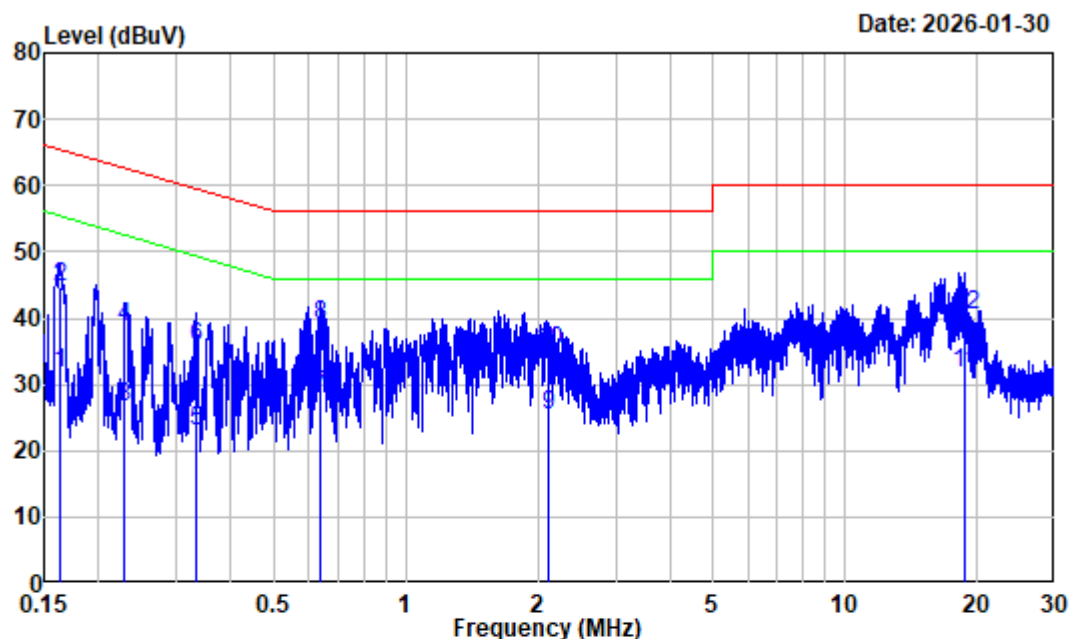
AC 120V/60Hz, Line:



Site : Shielding Room
 Condition : Line
 Job No. : 2504A34770E-RF
 Test Mode : Transmitting
 Tester : Serein Wen
 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	0.165	19.87	10.51	30.38	55.20	-24.82	Average
2	0.165	19.87	23.85	43.72	65.20	-21.48	QP
3	0.269	19.95	1.05	21.00	51.16	-30.16	Average
4	0.269	19.95	14.46	34.41	61.16	-26.75	QP
5	0.332	20.01	0.39	20.40	49.41	-29.01	Average
6	0.332	20.01	11.14	31.15	59.41	-28.26	QP
7	0.610	20.16	0.85	21.01	46.00	-24.99	Average
8	0.610	20.16	12.05	32.21	56.00	-23.79	QP
9	2.107	20.58	0.98	21.56	46.00	-24.44	Average
10	2.107	20.58	8.95	29.53	56.00	-26.47	QP
11	18.232	23.80	6.86	30.66	50.00	-19.34	Average
12	18.232	23.80	16.45	40.25	60.00	-19.75	QP

AC 120V/60Hz, Neutral:



Site : Shielding Room
Condition : Neutral
Job No. : 2504A34770E-RF
Test Mode : Transmitting
Tester : Serein Wen
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	0.163	19.82	11.98	31.80	55.33	-23.53	Average
2	0.163	19.82	24.82	44.64	65.33	-20.69	QP
3	0.229	19.93	6.77	26.70	52.49	-25.79	Average
4	0.229	19.93	18.86	38.79	62.49	-23.70	QP
5	0.332	19.93	3.05	22.98	49.39	-26.41	Average
6	0.332	19.93	15.75	35.68	59.39	-23.71	QP
7	0.636	20.08	8.17	28.25	46.00	-17.75	Average
8	0.636	20.08	18.94	39.02	56.00	-16.98	QP
9	2.107	20.95	4.46	25.41	46.00	-20.59	Average
10	2.107	20.95	13.98	34.93	56.00	-21.07	QP
11	18.696	23.91	7.86	31.77	50.00	-18.23	Average
12	18.696	23.91	16.48	40.39	60.00	-19.61	QP

PEAK EIRP AND TRANSMITTER OFF-TIMES

Applicable Standard

According to FCC §15.255(c)(2):

(i) 57.0-59.4 GHz: the peak EIRP level shall not exceed 20 dBm for indoor operation or 30 dBm for outdoor operation;

(ii) 57.0-61.56 GHz: the peak EIRP shall not exceed 3 dBm except that the peak EIRP shall not exceed 20 dBm if the sum of continuous transmitter off-times of at least two milliseconds equals at least 16.5 milliseconds within any contiguous interval of 33 milliseconds;

(iii) 57.0-64.0 GHz:

(A) The peak EIRP shall not exceed 14 dBm, and the sum of continuous transmitter off-times of at least two milliseconds shall equal at least 25.5 milliseconds within any contiguous interval of 33 milliseconds, except as specific in paragraph (c)(2)(iii)(B) of this section;

(B) The peak EIRP shall not exceed 20 dBm, and the sum of continuous transmitter off-times of at least two milliseconds shall equal at least 16.5 milliseconds within any contiguous interval of 33 milliseconds when operated outdoors:

(1) As part of a temporary or permanently fixed application; or

(2) When being used in vehicular applications to perform specific tasks of moving something or someone, except for in-cabin applications;

According to RSS-210, Annex J. 3.2(b):

b. FDS devices may operate in any mode as indicated in J.3.2(b)(i) and J.3.2(b)(ii), as long as they operate in only one of these modes for at least 33 ms before switching to another mode.

i. FDS devices operating in the 57.0-59.4 GHz band shall comply with one of the following limits, depending on the operating condition of the device:

1. the peak e.i.r.p. shall not exceed 20 dBm for indoor usage (devices operating and situated in or designed to be used in, or carried within the interior of a building)

2. the peak e.i.r.p. for outdoor usage (devices operating, situated in, designed to be used in, or carried in open air) shall not exceed 30 dBm

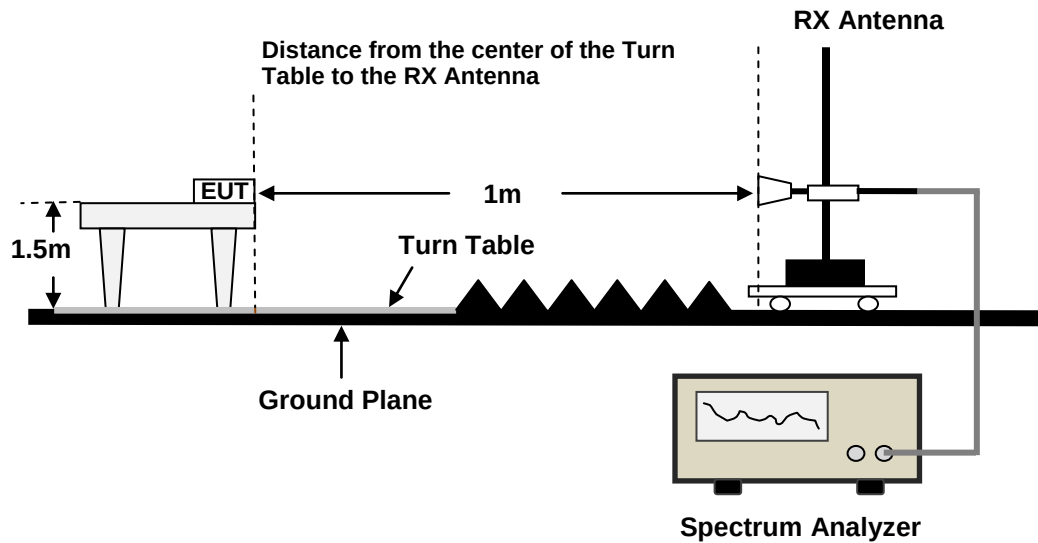
ii. FDS devices operating in the 57.0-61.56 GHz band shall have the peak e.i.r.p. not exceeding 3 dBm or, if the sum of continuous transmitter off-times of at least 2 ms equals at least 16.5 ms within any contiguous interval of 33 ms, the peak e.i.r.p. shall not exceed 20 dBm.

iii. FDS operating in the 57.0-64.0 GHz band shall comply with one of the following limits, depending on the operating condition of the device:

1. the peak e.i.r.p. shall not exceed 14 dBm and the sum of continuous transmitter off-times of at least 2 ms shall equal at least 25.5 ms within any contiguous interval of 33 ms

2. for devices employed for outdoor operation (temporary or permanently fixed application) or vehicular uses (excluding in-cabin applications and operations), the peak e.i.r.p. shall not exceed 20 dBm and the sum of continuous transmitter off-times of at least 2 ms shall equal at least 16.5 ms within any contiguous interval of 33 ms

EUT Setup



Place the measurement antenna at a measurement distance that is in the far-field of the measurement antenna, in the far-field of the EUT antenna. The EIRP test was performed at 1m distance, which was larger than the minimum test distance, please refer to section 4.4.4 for more detail.

Test Procedure

According to ANSI C63.10-2020 Clause 9.8:

c) For radiated measurements:

- 1) Place the measurement antenna at a measurement distance that is in the far-field of the measurement antenna, in the far-field of the EUT antenna, and meets the measurement distance requirements for final radiated measurements as specified in 9.1.4.
- 2) Place the measurement antenna in the main beam of the EUT then maximize the fundamental emission using the procedures of 9.7, noting that multiple peaks can be found at different beam orientations and/or polarizations.
- 3) Correct the power reading from the spectrum analyzer for any external gain and/or attenuation between the measurement antenna and the spectrum analyzer. This is the power at the output of the measurement antenna
- 4) Calculate the EIRP from the power at the output of the measurement antenna using Equation (22), and then convert to linear form using Equation (24).
- 5) Where applicable, calculate conducted output power from the EIRP using Equation (27).

Calculate the EIRP from the radiated measurement in the far-field using Equation (22):

$$EIRP = 21.98 - 20\log(\lambda) + 20\log(d_{Meas}) + P - G \quad (22)$$

where

$EIRP$	is the equivalent isotropic radiated power, in dBm
λ	is the wavelength of the emission under investigation $[300/f(\text{MHz})]$, in m
d_{Meas}	is the measurement distance, in m
P	is the power measured at the output of the measurement antenna, in dBm
G	is the gain of the measurement antenna, in dBi

NOTE—The measured power P includes all applicable instrument correction factors up to the connection to the measurement antenna.

For FMCW emissions, the procedures in 4.1.5.2.8 and Annex L shall be used.

Test Data

Environmental Conditions

Temperature:	20.1℃
Relative Humidity:	43%
ATM Pressure:	101.8kPa
Test Engineer:	Colin Lin
Test Date:	2026-01-12
EUT Operation Mode:	Transmitting

Test Result: Compliance. Please refer below data.

• Chirp Correction Factor

Chirp Time(μs)	BW _{chirp} (Mhz)	RBW(MHz)	Chirps Correction Factor (dB)
57.5	2780.00	1	13.30

Note: Refer to ANSI C63.10-2020/cor1-2023 Annex L.1. The chirp correction factor was calculated using the formula:

$$\alpha = \frac{1}{\sqrt{1 + \left(\frac{2 \ln(2)}{\pi}\right)^2 \left(\frac{BW_{\text{Chirp}}}{T_{\text{Chirp}} B^2}\right)^2}}$$

where

α is the reduction in amplitude

BW_{Chirp} is the FMCW Chirp Bandwidth

T_{Chirp} is the FMCW Chirp Time

B is the 3 dB IF Bandwidth = RBW

NOTE—This assumes that the analyzer sweep time is negligible (i.e., Sweep Time >> T_{Chirp}) or that the analyzer is in the zero span mode.

• Peak EIRP

Receiver		Factor (dB/m)	Chirp Correction Factor (dB)	E-Field @1m (dBuV/m)	EIRP (dBm)	Limit (dBm)
Reading (dBμV)	Detector					
108.51	PK	0.71	13.3	122.52	17.72	20

The Mixers and it's RF cables is compose a system for calibration and already added into the reading.

Note 1: Factor = Antenna Factor + Cable loss- Amplifier Gain

Note 2: E-Field =Reading + Chirp Correction Factor +Factor

Note 3: EIRP=E-Field+ 20log(Measurement distance)-104.8

Note 4: Measurement distance =1m

Note 5: The test data recorded was the maximum polarization

Transmitter On (ms)	Observation Time (ms)	Sum of continuous transmitter off-times (ms)	Limit (ms)
3	33	30	16.5

Agilent 13:08:11 12 Jan 2026

ProjectNo.:2504A34770E-RF Tester:Colin Lin ▲ Mkr2 250 ms
 Ref 96.99 dBμV Ext Mix -31.32 dB

Norm
Log
10
dB/

LgAv

Center 59.000 000 GHz Span 0 Hz
 Res BW 8 MHz #VBW 8 MHz Sweep 300 ms (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1R	(1)	Time	8 ms	87.30 dBμV
1Δ	(1)	Time	3 ms	-0.75 dB
2R	(1)	Time	8 ms	87.30 dBμV
2Δ	(1)	Time	250 ms	-31.32 dB

Marker

Select Marker
1 2 3 4

Normal

Delta

Delta Pair
(Tracking Ref)
Ref ▲

Span Pair
Span Center

Off

More
1 of 2

File Operation Status, c:\SC002.6IF file saved

EMISSION BANDWIDTH

Applicable Standard

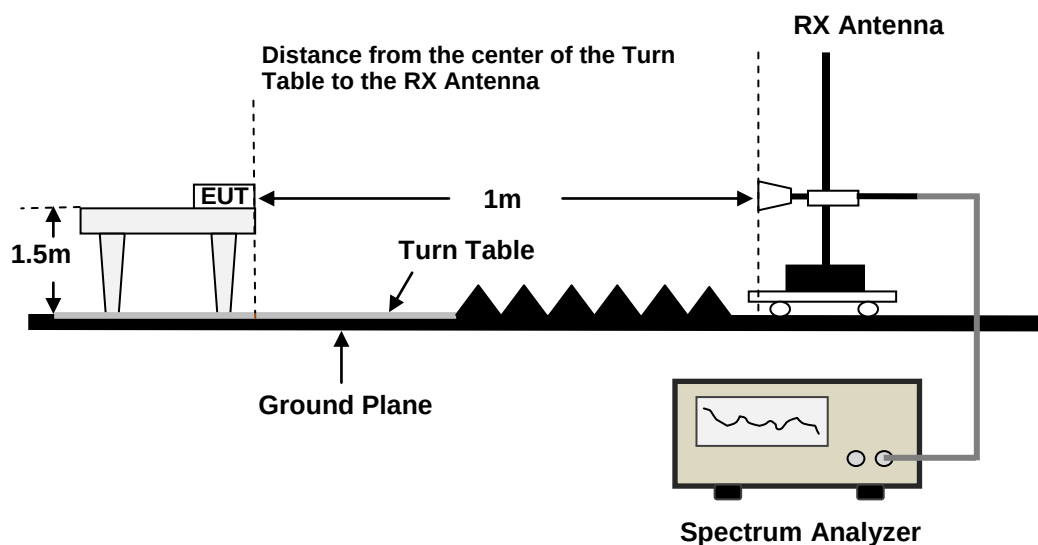
According to KDB 364244 D01 Meas 15.255 Radars v01r01:

For other than pulsed radar transmitters, the fundamental emission bandwidth is presumed to be "...the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage $\beta/2$ of the total mean power of a given emission. Unless otherwise specified in an ITU-R Recommendation for the appropriate class of emission, the value of $\beta/2$ should be taken as 0.5%," as defined in §2.1(c) of the FCC rules. This is also known as the 99% occupied bandwidth (OBW).

According to RSS-Gen Clause 6.7:

The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs. In some cases, the "x dB bandwidth" is required, which is defined as the frequency range between two points, one at the lowest frequency below and one at the highest frequency above the carrier frequency, at which the maximum power level of the transmitted emission is attenuated x dB below the maximum in-band power level of the modulated signal, where the two points are on the outskirts of the in-band emission.

EUT Setup



Place the measurement antenna in the main beam of the EUT then maximize the fundamental emission, noting that multiple peaks can be found at different beam orientations and/or polarizations.

Test Procedure

According to KDB 364244 D01 Meas 15.255 Radars v01r01:

Clauses 9.3 and 9.4 of C63.10-2020 provide standardized procedures recognized by the FCC for measuring both the relative (-10 dB) bandwidth and the 99% OBW.

The occupied bandwidth (OBW) is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

a) The following procedure shall be used for measuring 99% power bandwidth: Use the following spectrum analyzer settings:

- 1) Span equal to approximately 1.5 times the OBW, centered on the carrier frequency
- 2) RBW, prefer 1% to 5% of OBW, or a minimum of 1 MHz if this is not possible due to a large OBW
- 3) VBW approximately $3 \times$ RBW
- 4) Set the reference level of the instrument as required to reduce the chance of the signal amplitude exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.1.6.

5) Sweep = No faster than coupled (auto) time.

6) Detector function = peak.

7) Trace = max-hold.

b) The EUT shall be transmitting at its maximum data rate. Allow the trace to stabilize.

c) If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency.

Repeat the process until 99.5% of the total is reached and record that frequency as the upper OBW frequency. The 99% power OBW can be determined by computing the difference these two frequencies.

d) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

e) Repeat this test for each modulation scheme using the guidance of 5.6.2.1.

According to RSS-Gen Clause 6.7:

The following conditions shall be observed for measuring the occupied bandwidth and x 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 / x dB bandwidth if the device is not transmitting continuously.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

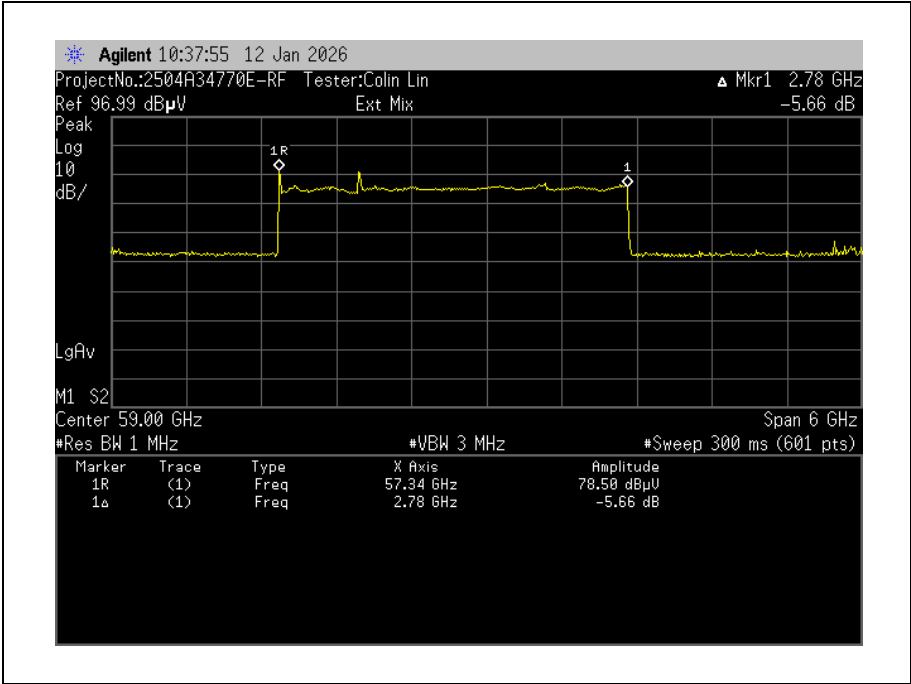
Test Data

Environmental Conditions

Temperature:	20.1℃
Relative Humidity:	43%
ATM Pressure:	101.8kPa
Test Engineer:	Colin Lin
Test Date:	2026-01-12
EUT Operation Mode:	Transmitting

Test Result: Compliance. Please refer below data.

99% Occupied Bandwidth (MHz)	F _L (GHz)	F _L Limit (GHz)	F _H (GHz)	F _H Limit (GHz)
2780	57.34	57	60.12	64



RADIATED SPURIOUS EMISSIONS

Applicable Standard

According to FCC §15.255(d):

Limits on spurious emissions:

- (1) The power density of any emissions outside the 57-71 GHz band shall consist solely of spurious emissions.
- (2) Radiated emissions below 40 GHz shall not exceed the general limits in § 15.209.
- (3) Between 40 GHz and 200 GHz, the level of these emissions shall not exceed 90 pW/cm^2 at a distance of 3 meters.
- (4) The levels of the spurious emissions shall not exceed the level of the fundamental emission.

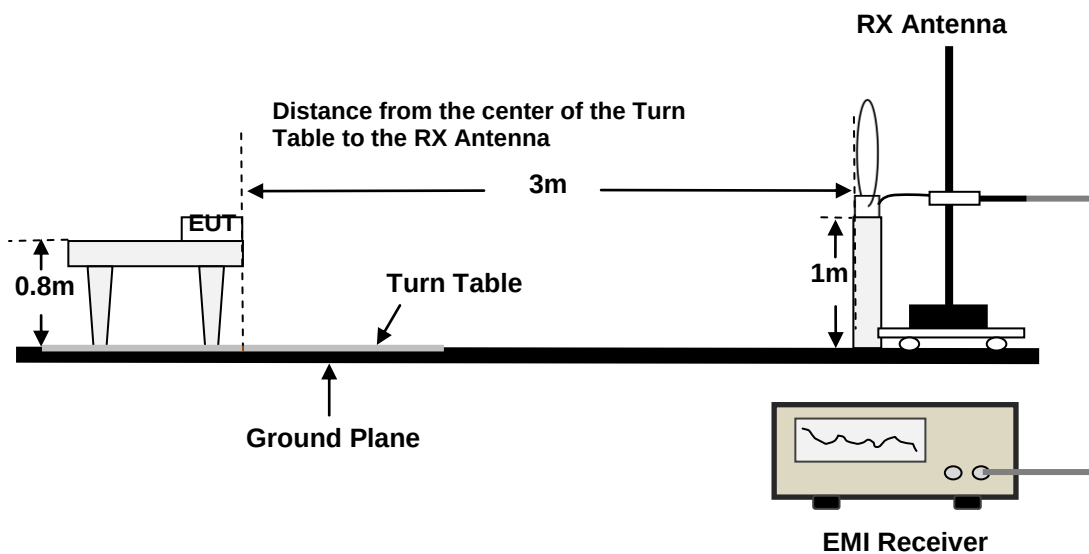
According to RSS-210 Annex J.4:

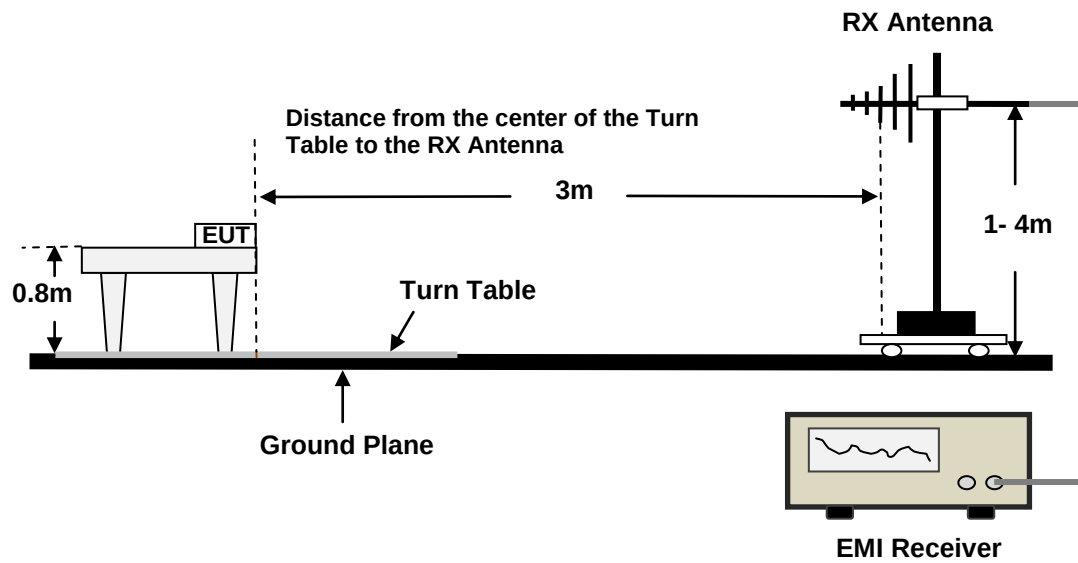
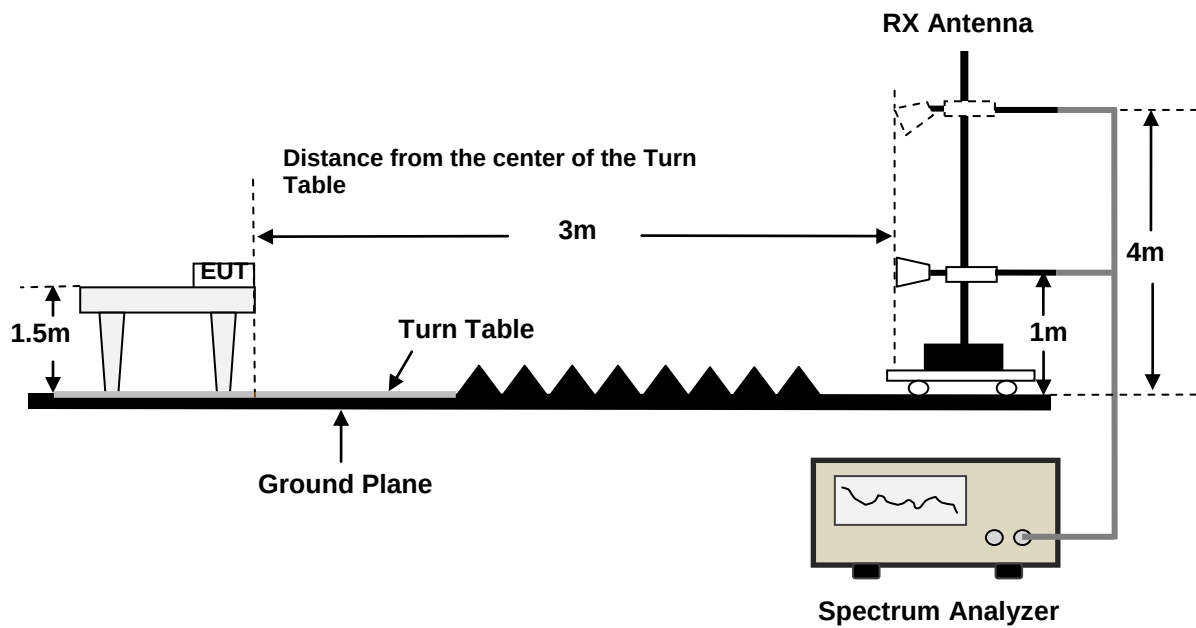
Any emissions outside the band 57-71 GHz shall consist solely of spurious emissions and shall not exceed:

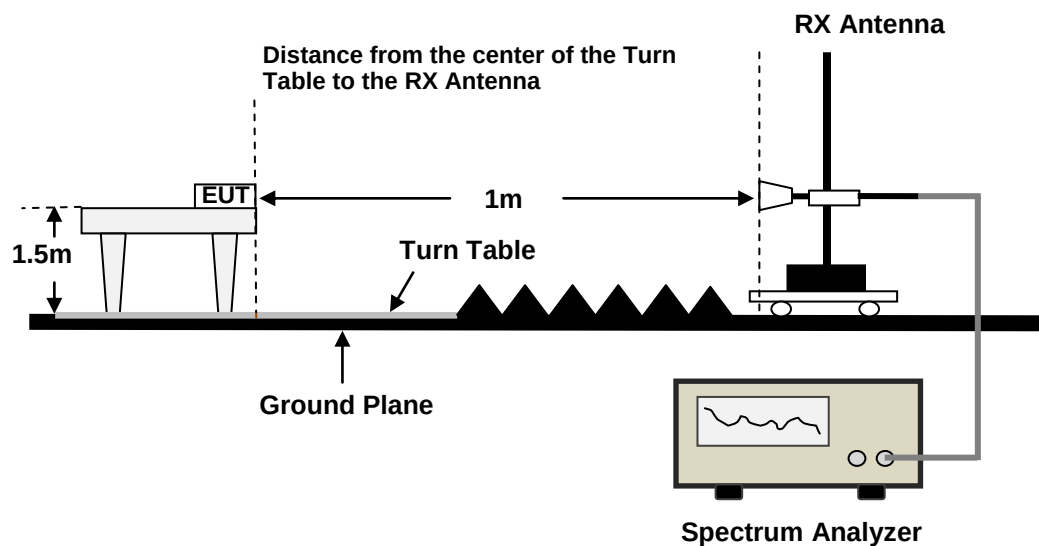
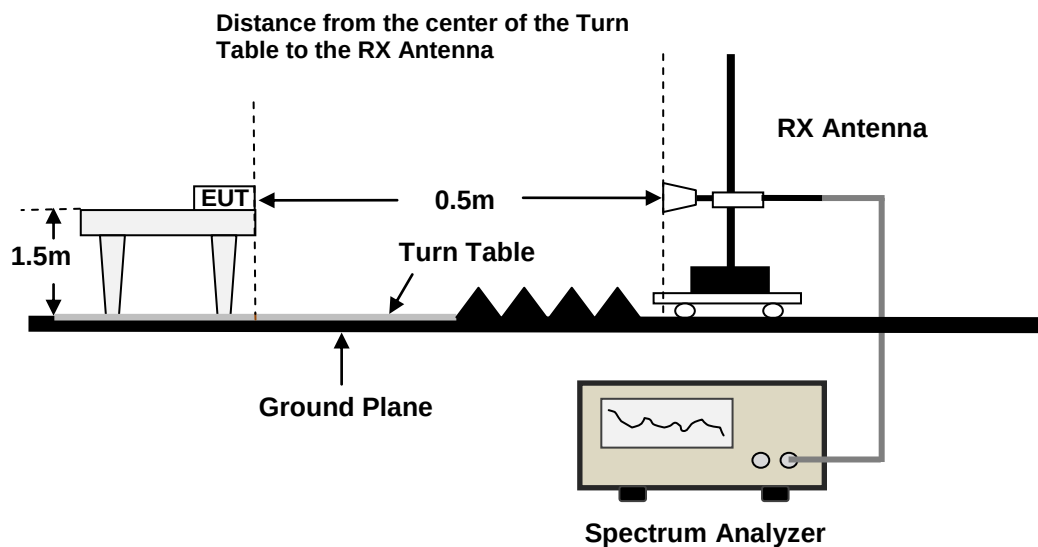
- (a) the fundamental emission levels
- (b) the general field strength limits specified in RSS-Gen, General Requirements for Compliance of Radio Apparatus, for emissions below 40 GHz
- (c) 90 pW/cm^2 at a distance of 3 m for emissions between 40 GHz and 200 GHz

EUT Setup

9kHz-30MHz:



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

40GHz - 90GHz:**90GHz -200GHz:**

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 200 GHz.

The radiated emission and out of band emission tests were performed in the 3 meters chamber, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, 15.205, 15.255, RSS-210 and RSS-Gen limits.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9kHz to 200GHz.

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

9kHz-1000MHz:

Measurement	Frequency Range	RBW	Video B/W	IF B/W
PK	9 kHz - 150 kHz	300 Hz	1kHz	/
QP		/	/	200 Hz
PK	150 kHz - 30 MHz	10 kHz	30 kHz	/
QP		/	/	600Hz
PK	30 MHz - 1000 MHz	100 kHz	300 kHz	/
QP		/	/	120kHz

1GHz-40GHz:

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

40GHz-200GHz:

Measurement	RBW	Video B/W	Detector
PK	1 MHz	3 MHz	PK

Note 1: The other spurious emission which is in the noise floor level was not recorded.

Note 2: 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 3: 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 4: 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.

Refer to ANSI C63.10-2020 Clauses 9.10, and 9.11.

A Maximizing procedure was performed to ensure that the highest emissions from the EUT were actually measured in all of the Test Arrangements of the EUT and Local Support Equipment.

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

For above 40GHz:

External harmonic mixers are utilized. The antenna is scanned around the entire perimeter surface of the EUT, in both horizontal and vertical polarizations. The Mixers and it's RF cables is compose a system for calibration, the conversion factor was added into the test Spectrum Analyzer in testing.

The far-field boundary is given in ANSI C63.10-2020 Clauses 9.1.4:

$$R_m = 2D^2/\lambda$$

Where:

D is the largest dimension of the antenna aperture in m and

λ is the free-space wavelength in m at the frequency of measurement.

The minimum test distance for the frequency range 40GHz-200GHz determine as below:

Model	Frequency Range (GHz)	Largest Dimension of the Horn Antenna (mm)	Minimum Toct Dictanco R_m (m)
M19RH	40-60	46.3	0.86
861V/385	50-75	43.7	0.95
M12RH	60-90	30.02	0.54
M08RH	90-140	19.7	0.36
M05RH	140-220	12.5	0.23

Note: the test distances used were 1.0 m from 40 GHz to 90 GHz, and 0.5 m from 90 GHz to 200 GHz, it can be seen that the EUT was always in the Far-field of the Receive Antenna during all Radiated Emissions Tests.

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 Spurious Emissions, after pre-scan in the Y and Z axes of orientation, the worst-case setting photo of the Y-axis was recorded.

9kHz-1GHz

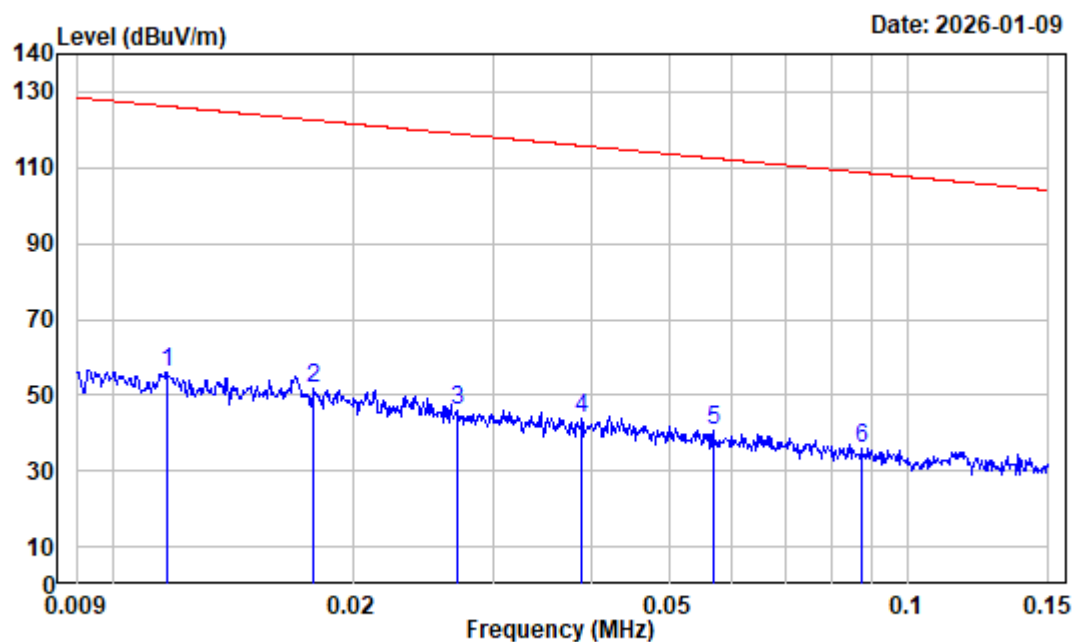
Environmental Conditions

Temperature:	17.3 °C
Relative Humidity:	36 %
ATM Pressure:	101.8 kPa
Test Engineer:	Jayden Luo
Test Date:	2026-01-09
EUT Operation Mode:	Test mode 1&2

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

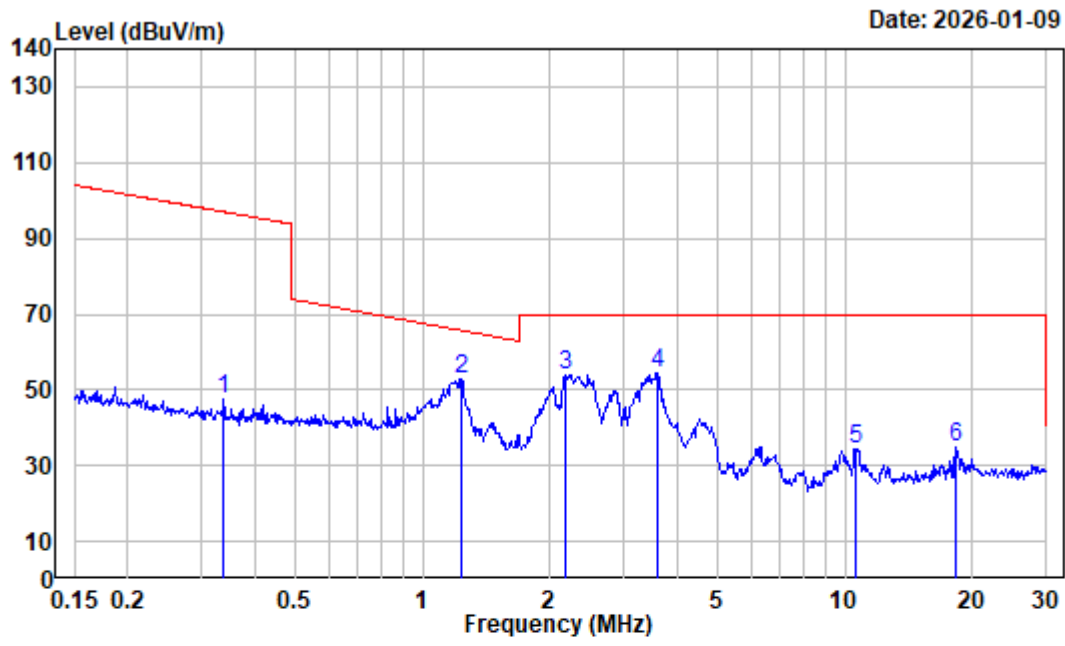
Test Mode 1

9kHz~30MHz:



Site : chamber
Condition : 3m
Job No. : 2504A34770E-RF
Polarization : Parallel Tester: Jayden Luo
Test Mode : Test Mode 1
Receiver Setting: RBW:300Hz VBW:1kHz

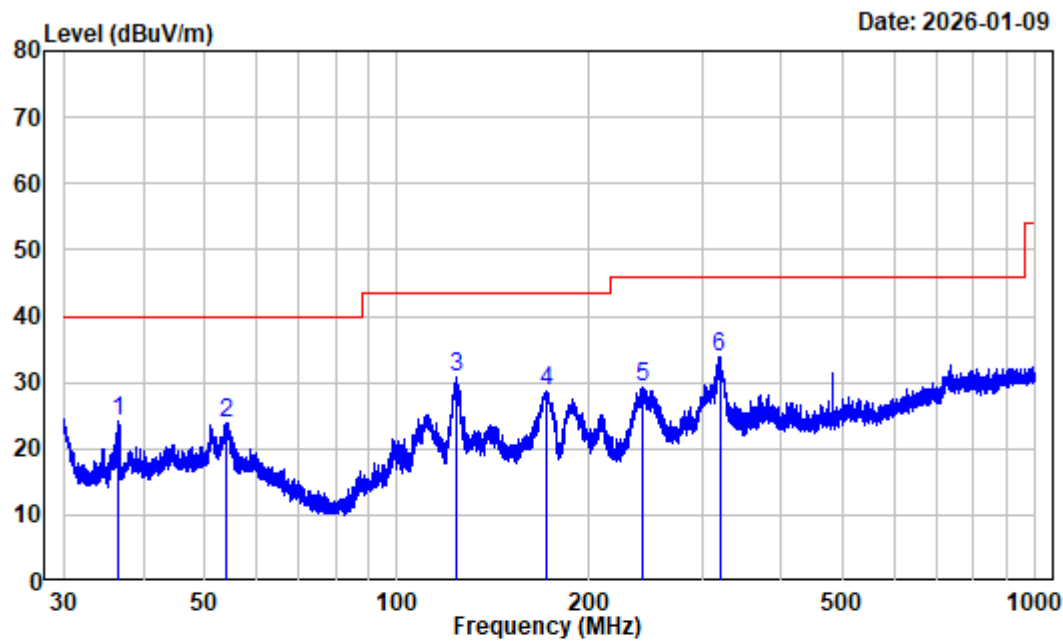
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.012	35.08	20.80	55.88	126.25	-70.37	Peak
2	0.018	32.33	19.53	51.86	122.56	-70.70	Peak
3	0.027	28.23	17.63	45.86	118.94	-73.08	Peak
4	0.039	25.11	18.85	43.96	115.81	-71.85	Peak
5	0.057	21.83	18.98	40.81	112.51	-71.70	Peak
6	0.087	17.78	18.32	36.10	108.80	-72.70	Peak



Site : chamber
Condition : 3m
Job No. : 2504A34770E-RF
Polarization : Parallel Tester: Jayden Luo
Test Mode : Test Mode 1
Receiver Setting: RBW:10kHz VBW:30kHz

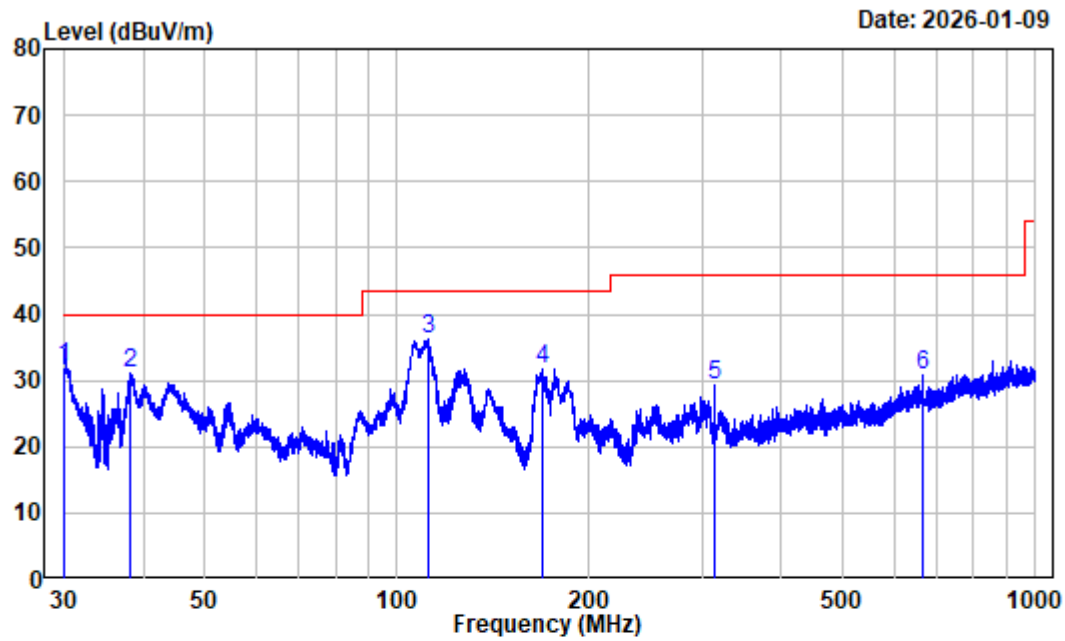
	Freq		Read		Limit	Over	Remark
	Factor		Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.337	6.52	41.05	47.57	97.04	-49.47	Peak
2	1.242	-2.69	55.52	52.83	65.55	-12.72	Peak
3	2.190	-5.46	59.56	54.10	69.54	-15.44	Peak
4	3.584	-6.11	60.47	54.36	69.54	-15.18	Peak
5	10.564	-5.21	39.64	34.43	69.54	-35.11	Peak
6	18.328	-3.73	38.85	35.12	69.54	-34.42	Peak

30MHz~1GHz:



Site : chamber
Condition : 3m HORIZONTAL
Job No. : 2504A34770E-RF Tester: Jayden Luo
Test Mode : Test Mode 1
Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	36.637	-11.33	35.55	24.22	40.00	-15.78	Peak
2	53.787	-10.42	34.28	23.86	40.00	-16.14	Peak
3	124.242	-14.08	44.77	30.69	43.50	-12.81	Peak
4	171.092	-13.55	42.18	28.63	43.50	-14.87	Peak
5	241.888	-10.04	39.28	29.24	46.00	-16.76	Peak
6	320.077	-8.37	42.25	33.88	46.00	-12.12	Peak

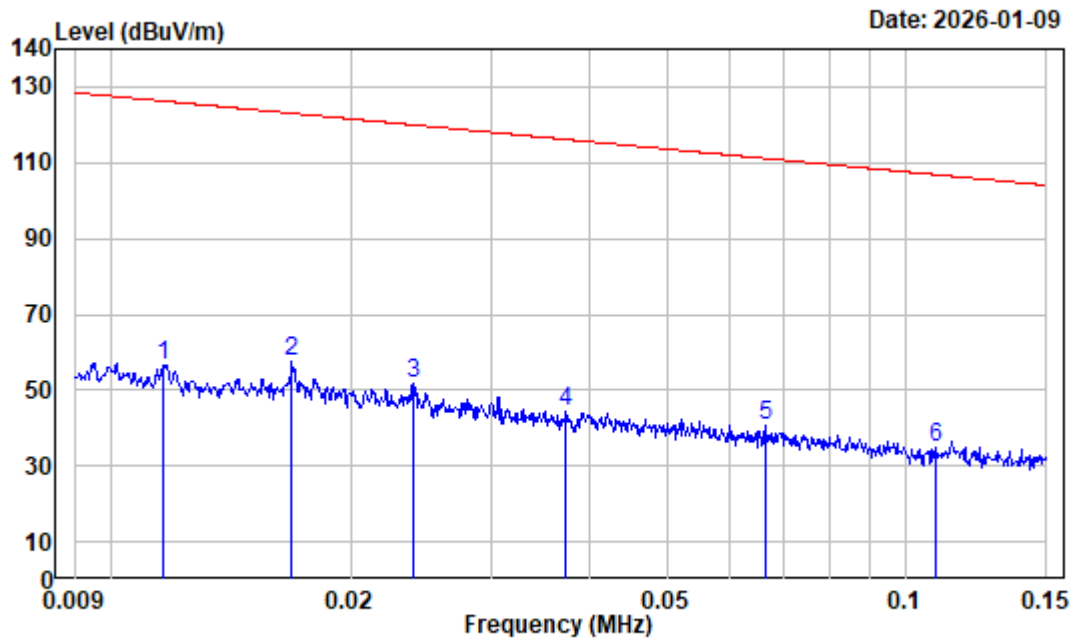


Site : chamber
Condition : 3m VERTICAL
Job No. : 2504A34770E-RF Tester: Jayden Luo
Test Mode : Test Mode 1
Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	30.026	-11.78	43.70	31.92	40.00	-8.08 QP
2	38.062	-10.93	42.05	31.12	40.00	-8.88 Peak
3	111.591	-11.87	48.16	36.29	43.50	-7.21 Peak
4	168.931	-13.77	45.43	31.66	43.50	-11.84 Peak
5	314.928	-8.62	37.91	29.29	46.00	-16.71 Peak
6	664.055	-1.15	31.88	30.73	46.00	-15.27 Peak

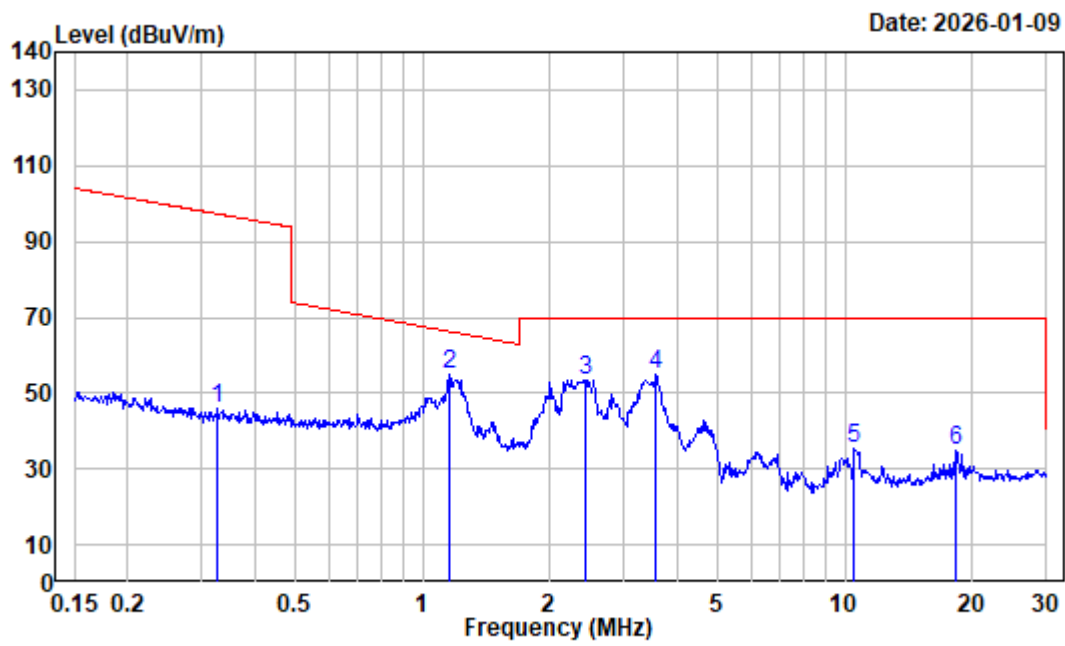
Test Mode 2

9kHz~30MHz:



Site : chamber
Condition : 3m
Job No. : 2504A34770E-RF
Polarization : Parallel Tester: Jayden Luo
Test Mode : Test Mode 2
Receiver Setting: RBW:300Hz VBW:1kHz

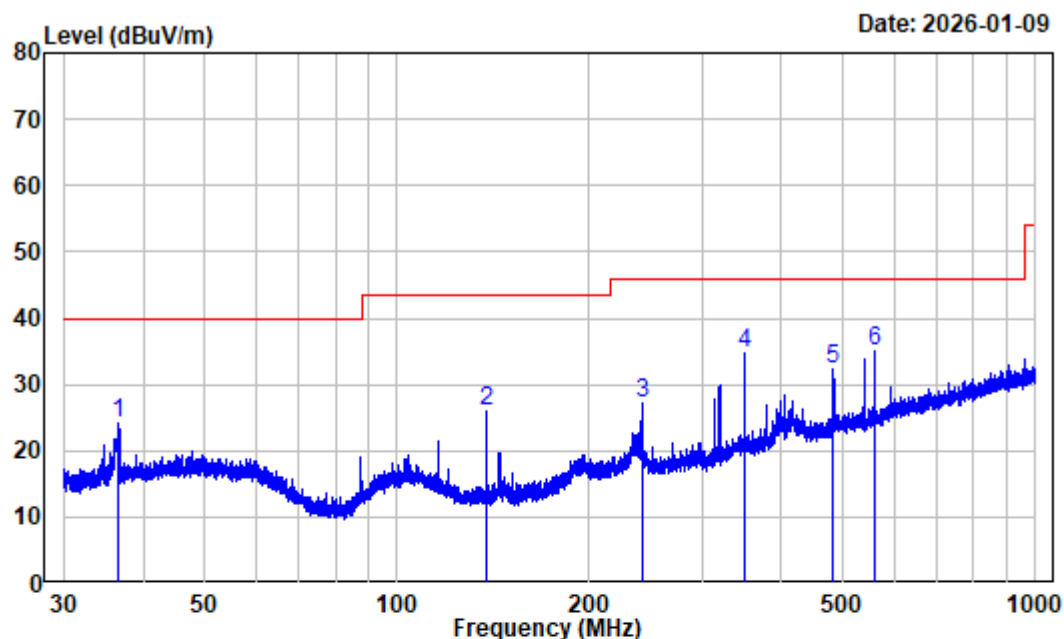
	Freq Factor		Read Level		Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.012	35.09	21.59	56.68	126.27	-69.59	Peak
2	0.017	32.77	24.66	57.43	123.05	-65.62	Peak
3	0.024	29.60	22.41	52.01	119.99	-67.98	Peak
4	0.037	25.43	18.81	44.24	116.15	-71.91	Peak
5	0.067	20.45	20.07	40.52	111.14	-70.62	Peak
6	0.109	16.03	18.95	34.98	106.84	-71.86	Peak



Site : chamber
Condition : 3m
Job No. : 2504A34770E-RF
Polarization : Parallel Tester: Jayden Luo
Test Mode : Test Mode 2
Receiver Setting: RBW:10kHz VBW:30kHz

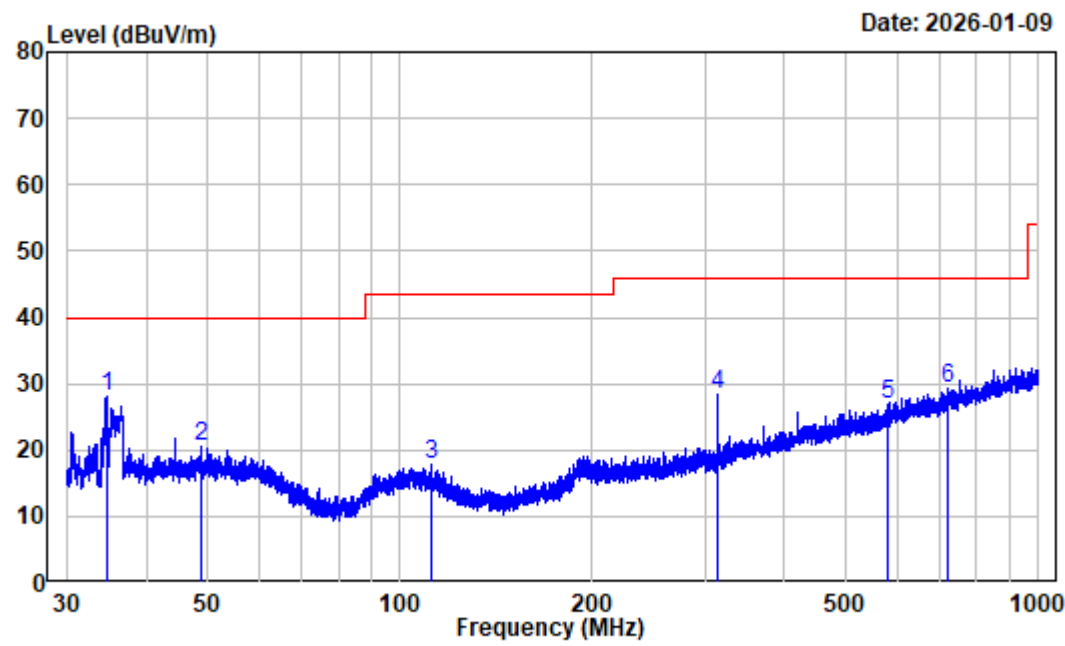
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.327	6.73	39.23	45.96	97.32	-51.36	Peak
2	1.153	-2.37	57.45	55.08	66.21	-11.13	Peak
3	2.422	-5.57	59.13	53.56	69.54	-15.98	Peak
4	3.565	-6.10	60.88	54.78	69.54	-14.76	Peak
5	10.508	-5.22	40.86	35.64	69.54	-33.90	Peak
6	18.328	-3.73	38.51	34.78	69.54	-34.76	Peak

30MHz~1GHz:



Site : chamber
Condition : 3m HORIZONTAL
Job No. : 2504A34770E-RF Tester: Jayden Luo
Test Mode : Test Mode 2
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	36.654	-11.33	35.47	24.14	40.00	-15.86	Peak
2	137.601	-14.83	40.76	25.93	43.50	-17.57	Peak
3	242.951	-10.03	37.05	27.02	46.00	-18.98	Peak
4	351.092	-6.84	41.55	34.71	46.00	-11.29	Peak
5	480.107	-4.39	36.74	32.35	46.00	-13.65	Peak
6	560.202	-3.41	38.49	35.08	46.00	-10.92	Peak



Site : chamber

Condition : 3m VERTICAL

Job No. : 2504A34770E-RF Tester: Jayden Luo

Test Mode : Test Mode 2

Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	34.745	-11.62	39.72	28.10	40.00	-11.90	Peak
2	48.821	-9.83	30.39	20.56	40.00	-19.44	Peak
3	112.229	-11.92	29.76	17.84	43.50	-25.66	Peak
4	314.928	-8.62	37.04	28.42	46.00	-17.58	Peak
5	579.177	-2.84	29.67	26.83	46.00	-19.17	Peak
6	718.884	-0.74	29.95	29.21	46.00	-16.79	Peak

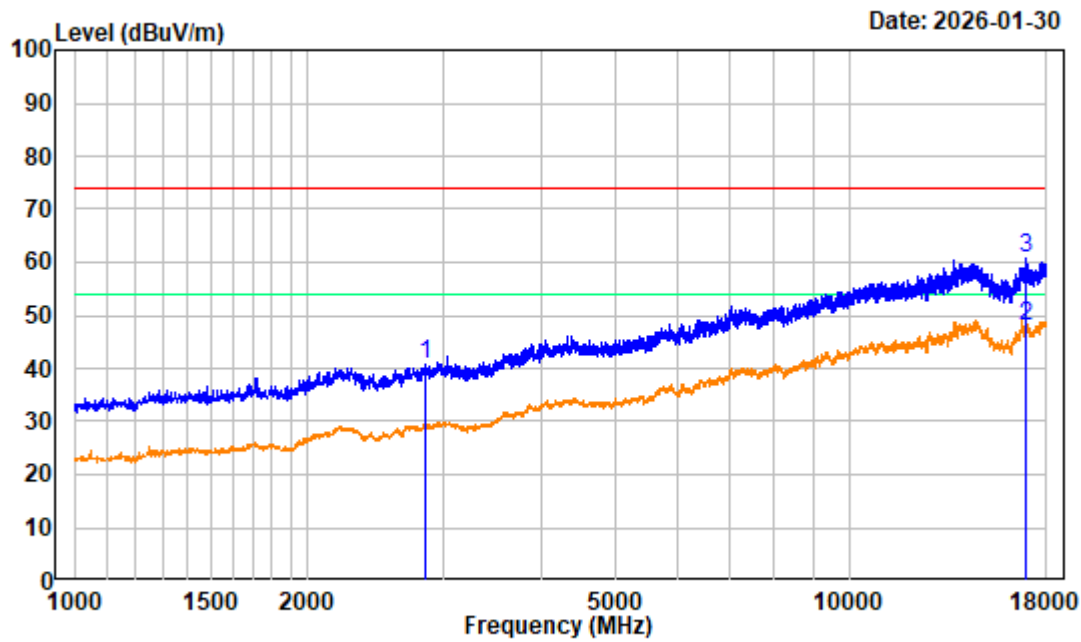
1GHz-40GHz

Environmental Conditions

Temperature:	20.6 °C
Relative Humidity:	41 %
ATM Pressure:	101.8 kPa
Test Engineer:	Max Tao
Test Date:	2026-01-30
EUT Operation Mode:	Transmitting

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

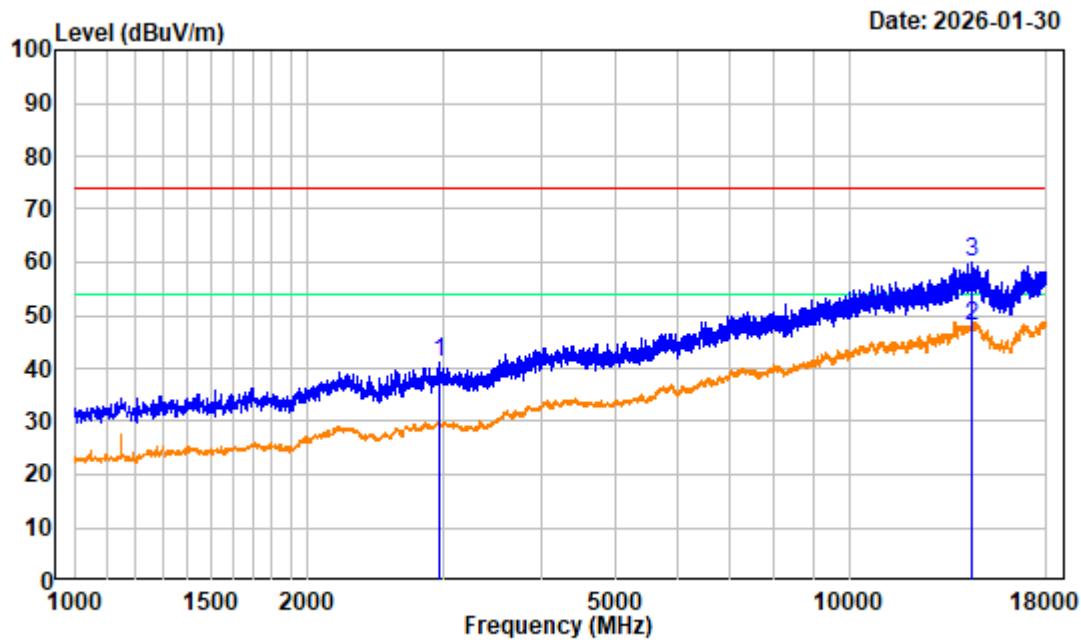
Radar 1GHz-18GHz_HORIZONTAL



Site : chamber
Condition : 3m HORIZONTAL
Project No.: 2504A34770E-RF
Test Mode : Transmitting Tester:Max Tao
Note : 1GHz-18GHz
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	2846.625	-9.72	50.53	40.81	74.00	-33.19	Peak
2	16969.380	7.96	40.00	47.96	54.00	-6.04	Average
3	16969.380	7.96	52.62	60.58	74.00	-13.42	Peak

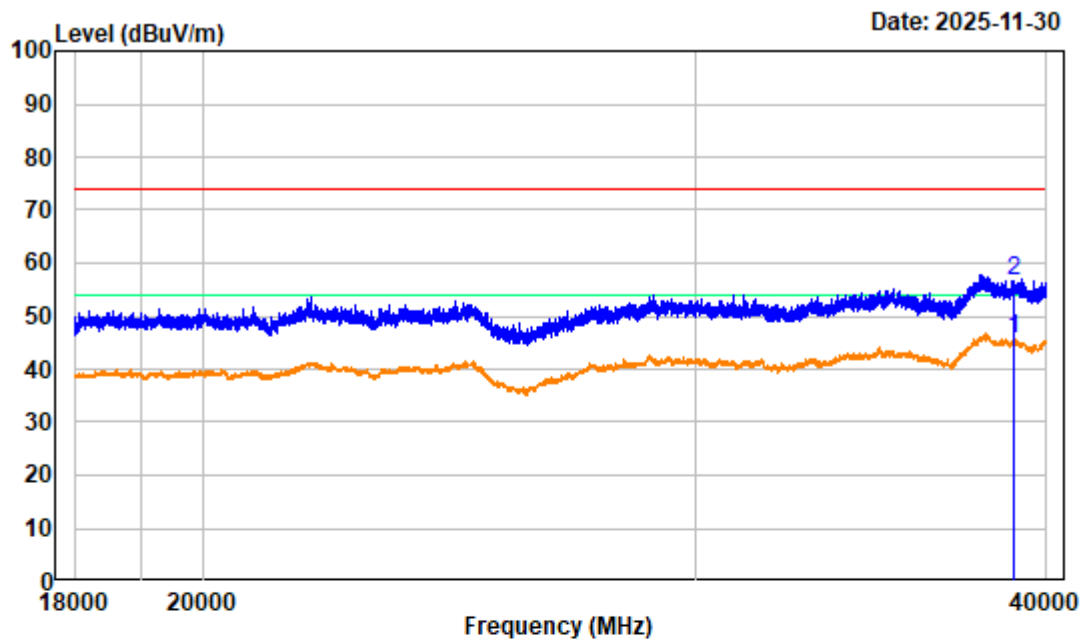
Radar 1GHz-18GHz_VERTICAL



Site : chamber
Condition : 3m VERTICAL
Project No.: 2504A34770E-RF
Test Mode : Transmitting Tester:Max Tao
Note : 1GHz-18GHz
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 2955.000	-9.63	50.85	41.22	74.00	-32.78	Peak
2 14438.500	8.46	39.36	47.82	54.00	-6.18	Average
3 14438.500	8.46	51.58	60.04	74.00	-13.96	Peak

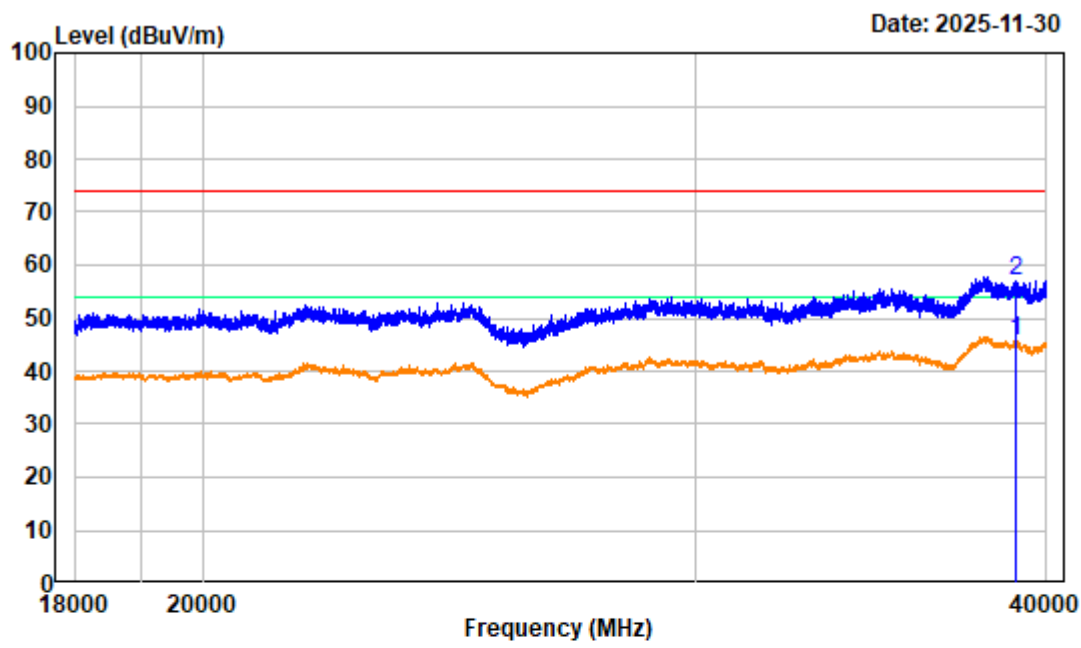
Radar 18GHz-40GHz_HORIZONTAL



Site : chamber
Condition : 3m HORIZONTAL
Project No.: 2504A34770E-RF
Test Mode : Transmitting Tester:Max Tao
Note : 18GHz-40GHz
SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

		Read		Limit	Over	Remark
Freq	Factor	Level	Level	Line	Limit	
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 38963.250	6.29	39.34	45.63	54.00	-8.37	Average
2 38963.250	6.29	50.45	56.74	74.00	-17.26	Peak

Radar 18GHz-40GHz_VERTICAL



Site : chamber
Condition : 3m VERTICAL
Project No.: 2504A34770E-RF
Test Mode : Transmitting Tester:Max Tao
Note : 18GHz-40GHz
SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

	Freq	Factor	Read		Limit	Over	Remark
			Level	Level	Line	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	39021.000	6.19	39.37	45.56	54.00	-8.44	Average
2	39021.000	6.19	50.79	56.98	74.00	-17.02	Peak

40GHz-200GHz

Temperature:	20.1 °C
Relative Humidity:	43 %
ATM Pressure:	101.8 kPa
Test Engineer:	Colin Lin
Test Date:	2026-01-12
EUT Operation Mode:	Transmitting

Test Result: Compliance. Please refer below data.

Frequency (GHz)	Power density at 3m distance (pW/cm2)	Distance(m)	Limit Field strength (dBµV/m@3m)
40-200	90	3	85.31

Frequency (GHz)	Receiver Reading (dBµV)	Polar (H/V)	Factor (dB/m)	Field Strength (dBµV/m@3m)	Llimit Field strength (dBµV/m@3m)
45.210	77.48	H	-3.4	64.54	85.31
46.570	77.57	V	-3.19	64.84	85.31
96.470	78.34	H	3.91	66.69	85.31
96.140	78.62	V	3.87	66.93	85.31
150.240	79.87	H	9.34	73.65	85.31
150.330	79.56	V	9.35	73.35	85.31

Note 1: Factor = Antenna Factor+Cable loss- Amplifier Gain

Note 2: Field Strength = Reading + Factor + 20log(d_{Meas}/d_{SpecLimit})

Note 3: d_{Meas} is the measurement distance, in m

Note 4: d_{SpecLimit} is the distance specified by the limit, in m

Note 5: Refer to ANSI C63.10-2020 Clauses 9.2.3, calculate the power density at the distance specified by the limit from the field strength at the distance specified by the limit using Equation (26):

$$PD = \frac{E_{SpecLimit}^2}{377}$$

where

377 is free-space impedance

PD is the power density at the distance specified by the limit, in W/m²

E_{SpecLimit} is the field strength at the distance specified by the limit, in V/m

Note 6: The Specified distance is 3m.

FREQUENCY STABILITY

Applicable Standard

According to FCC §15.255(f):

Fundamental emissions must be contained within the frequency bands specified in this section during all conditions of operation. Equipment is presumed to operate over the temperature range -20 to $+50$ degrees Celsius with an input voltage variation of 85% to 115% of rated input voltage, unless justification is presented to demonstrate otherwise.

According to RSS-210, Annex J.6:

Fundamental emissions shall be contained within the frequency bands specified in this annex during all conditions of operation when tested at the temperature and voltage variations specified for the frequency stability measurement in RSS-Gen.

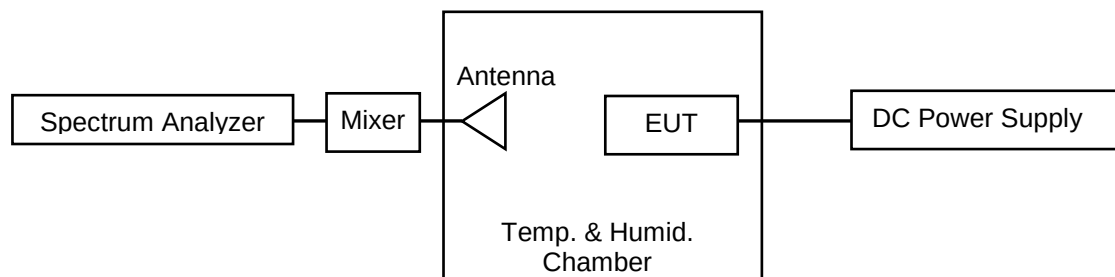
Test Procedure

According to ANSI C63.10-2020 Clauses 9.5:

The following procedure shall be used for determining frequency stability of millimeter-wave systems:

- Arrange EUT and test equipment as shown in Figure 21. Some temperature chambers have a window or other opening that permits locating the receive antenna outside the chamber.
- With the EUT at ambient temperature (approximately 25°C) and voltage source set to the EUT nominal operating voltage (100%), record the spectrum mask of the EUT emission on the spectrum analyzer.
- Vary EUT power supply between 85% and 115% of nominal, and record the frequency excursion of the EUT emission mask.
- Set the power supply to 100% nominal setting, and raise EUT operating temperature to 50°C . Record the frequency excursion of the EUT emission mask.
- Repeat step d) at each 10°C increment down to -20°C .

EUT Setup



Test Data

Environmental Conditions

Temperature:	20.1 °C
Relative Humidity:	43 %
ATM Pressure:	101.8 kPa
Test Engineer:	Colin Lin
Test Date:	2026-01-12
EUT Operation Mode:	Transmitting

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

Temperature	Voltage	Frequency (GHz)			
°C	V _{DC}	f _L	f _H	f _L Limit	f _H Limit
-20	3.6	57.3412	60.1205	57	64
-10	3.6	57.3404	60.1206	57	64
0	3.6	57.3391	60.1211	57	64
10	3.6	57.3411	60.1193	57	64
20	3.6	57.3400	60.1200	57	64
30	3.6	57.3396	60.1201	57	64
40	3.6	57.3398	60.1204	57	64
50	3.6	57.3414	60.1207	57	64
20	3.24	57.3405	60.1203	57	64
20	3.96	57.3417	60.1195	57	64

Note: The Voltage range was declared by manufacturer.

GROUP INSTALLTION

Applicable Standard

According to FCC §15.255 (h):

Any transmitter that has received the necessary FCC equipment authorization under the rules of this chapter may be mounted in a group installation for simultaneous operation with one or more other transmitter(s) that have received the necessary FCC equipment authorization, without any additional equipment authorization. However, no transmitter operating under the provisions of this section may be equipped with external phase-locking inputs that permit beam-forming arrays to be realized.

According to RSS-210, Annex J.7:

Any transmitter that is certified under this annex may be mounted in a group installation for simultaneous operation with one or more certified transmitters, without any additional equipment authorization. However, no transmitter operating under the provisions of this annex shall be equipped with external phase-locking inputs that permit beam-forming arrays to be realized.

Judgment

The frequency, amplitude and phase of the transmit signal are set within the EUT. There are no external phase-locking inputs or any other means of combining two or more units together to realize a beam-forming array

EXHIBIT A-EUT PHOTOGRAPHS

Please refer to the Attachment No.1 2504A34770E-RF EUT External Photos and Attachment No.2 2504A34770E-RF EUT Internal Photos.

EXHIBIT B-TEST SETUP PHOTOGRAPHS

Please refer to the Attachment No.4 2504A34770E-RFB Test Photos.

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