

TEST REPORT

Applicant Name: Autel Robotics Co., Ltd.
Address: 601,701,801,901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China
Report Number: 2504X06145E-RF-00E
FCC ID: 2AGNTMDE600958A

Test Standard (s)

FCC PART 15.255

Sample Description

Product Name: EVO III 4T Pro
EVO III 4N Pro
EVO III 3M Pro
EVO III 4F Pro
Model No.: MDE-L, MDE
Trade Mark: AUTEL ROBOTICS
Date Received: 2025-09-30
Report Date: 2025-11-20

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

Matt_Liang

Matt Liang
EMC Engineer

Approved By:

Bob.Liao

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

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504X06145E-RF-00E	Original Report	2025-11-20

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)\

Product Name	EVO III 4T Pro EVO III 4N Pro EVO III 3M Pro EVO III 4F Pro
Tested Model	MDE-L
Multiple Model	MDE
Model Difference [#]	MDE-L has LTE module and MDE doesn't. Please refer to DOS letter for more detail. The applicant provided model "MDE-L" for testing.
Voltage Range [#]	DC 14.4V from battery

Note1[#]: The device can install difference Gimbal cameras: Gimbal camera 1 (Fusion 4T Pro), Gimbal camera 2(Fusion 4F Pro), Gimbal camera 3(Fusion 3M Pro), Gimbal camera 4(Fusion 4N Pro).

Product name	EVO III 4T Pro	EVO III 4F Pro	EVO III 3M Pro	EVO III 4N Pro
Gimbal camera name	Fusion 4T Pro	Fusion 4F Pro	Fusion 3M Pro	Fusion 4N Pro
Gimbal camera model	MDES1	MDES2	MDEP1	MDEN1

Note 2: Per 15B report, test with Gimbal camera 1[#](Fusion 4T Pro) was the worst, so test was only performed with Gimbal camera 1[#](Fusion 4T Pro) this report.

Frequency Range	60.97-61.84 GHz
Maximum EIRP	15.18 dBm
Modulation Technique	FMCW
Chirp Time [#]	93.6 μs
Emission Designator [#]	N0N
Antenna Specification [#]	Array Antenna, 9.7dBi (It is provided by the applicant.)
Sample Serial Number	3BWK-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 C of the Federal Communication Commission 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

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 Frequency		0.064×10^{-7}
RF output power, conducted		0.3 dB
Unwanted Emission, conducted		1.2 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) and KDB 364244 D01 Meas 15.255 Radars v01r01, the device tested at Swept mode for FMCW modulation.

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

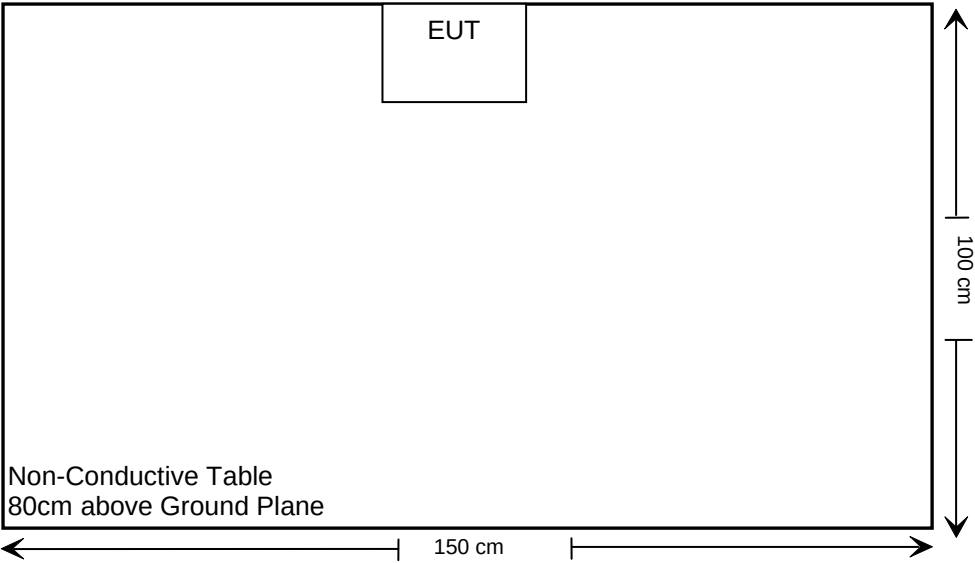
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

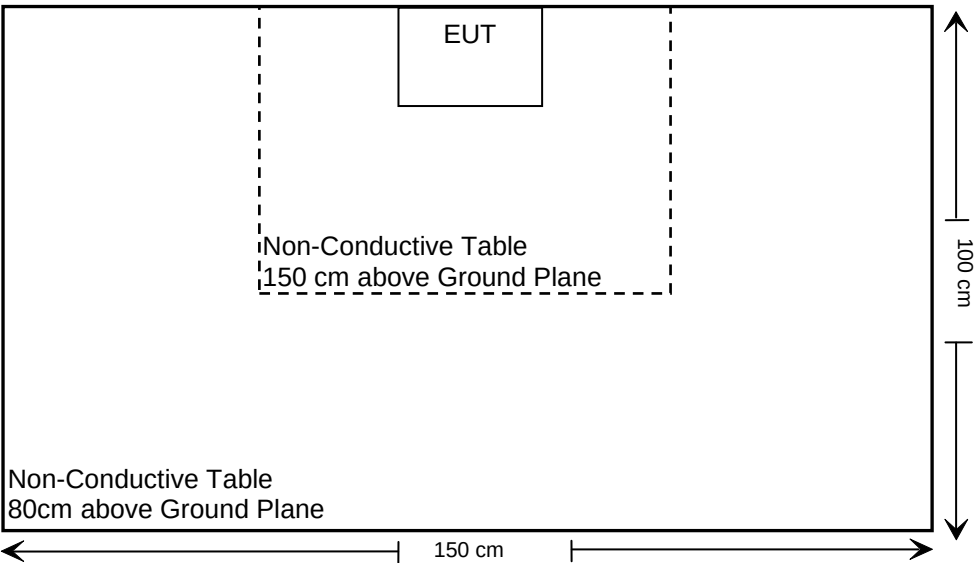
Cable Description	Length (m)	From Port	To
/	/	/	/

Block Diagram of Test Setup

For Radiated Emission(Below 1GHz):



For Radiated Emission(Above 1GHz):



SUMMARY OF TEST RESULTS

Items	Description of Test	Result
FCC §15.203	Antenna Requirement	Compliance
FCC §15.207(a)	AC Line Conducted Emissions	Not Applicable
FCC §15.255(c)(2)	Peak EIRP and Transmitter Off-times	Compliance
FCC §15.215, §15.255(e)	Occupied Bandwidth	Compliance
FCC §15.205, §15.209, §15.255(d)	Radiated Spurious Emissions	Compliance
FCC §15.255(f)	Frequency Stability	Compliance
FCC §15.255(h)	Group Installation	Compliance

Not Applicable: The device was powered by battery when operating.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
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
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/M19H WD	U60314-1	2023/3/27	2026/3/26
OML	Horn Antenna	M19RH	11649-02	2023/3/27	2026/3/26
OML	Waveguide Mixer	WR12/M12H WD	E60125-1	2023/3/16	2026/3/15
OML	Horn Antenna	M12RH	E60125-2	2023/3/16	2026/3/15
OML	Waveguide Mixer	WR08/M08H WD	F60320-1	2023/3/16	2026/3/15
OML	Horn Antenna	M08RH	F60320-2	2023/3/16	2026/3/15
OML	Waveguide Mixer	WR05/M05H WD	G60121-1	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:

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

Antenna Connector Construction

The EUT has one internal antenna arrangement, which was permanently attached and the antenna gain is 9.7dBi[#], fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliance.

PEAK EIRP AND TRANSMITTER OFF-TIMES

Applicable Standard

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:

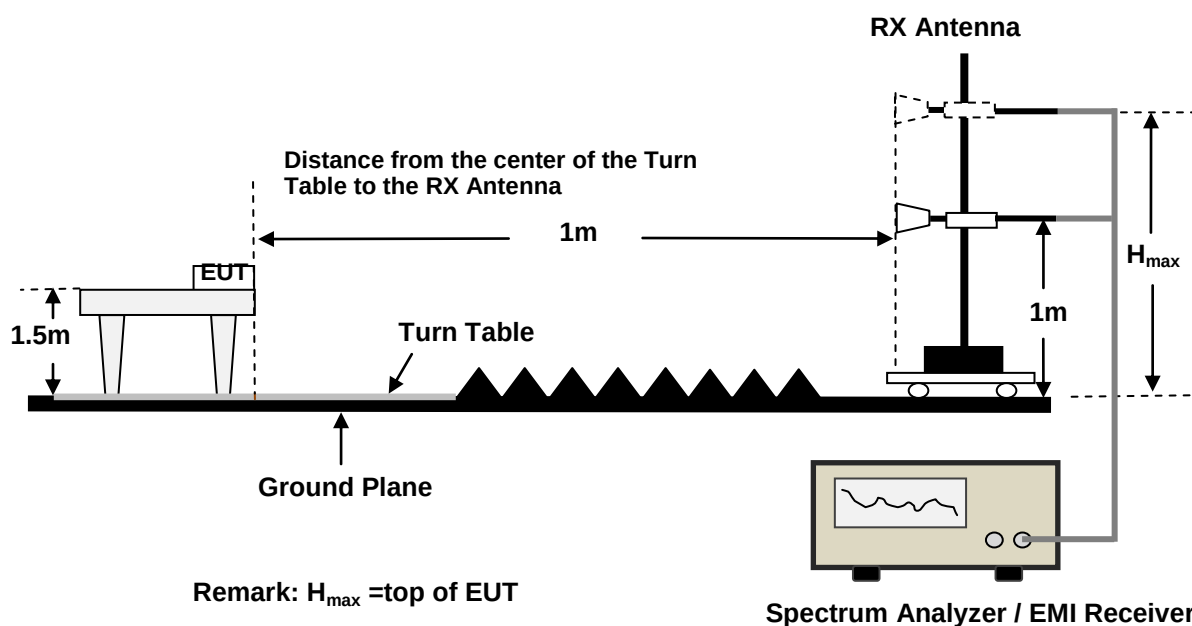
(A) The peak EIRP shall not exceed 14 dBm, and the sum of continuous transmitter off-times of at least two milliseconds shall equal at least 25.5 milliseconds within any contiguous interval of 33 milliseconds, except as specific in paragraph (c)(2)(iii)(B) of this section;

(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;

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

Refer 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).

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

where

<i>EIRP</i>	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
<i>P</i>	is the power measured at the output of the measurement antenna, in dBm
<i>G</i>	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.

- 5) Where applicable, calculate conducted output power from the EIRP using Equation (27).

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

Test Data

Environmental Conditions

Temperature:	24.1 to 25.1 °C
Relative Humidity:	49 to 50 %
ATM Pressure:	101.1 kPa
Test Engineer:	Colin Lin
Test Date:	2025-11-11 to 2025-11-18
EUT Operation Mode:	Transmitting

Test Result: Compliance. Please refer below data.

Chirps Correction Factor

Chirps Time(μs)	BW _{chirp} (Mhz)	RBW(MHz)	Chirps Correction Factor (dB)
93.6	851.913	1	6.17

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

$$\alpha = \frac{1}{\left(1 + \left[\left(\frac{2 \times \ln(2)}{\pi}\right)^2 \times \left(\frac{BW_{\text{Chirp}}}{T_{\text{Chirp}} \times RBW^2}\right)^2\right]\right)^{0.25}}$$

where

α is the reduction in amplitude
 BW_{Chirp} is the FMCW Chirp Bandwidth
 T_{Chirp} is the FMCW Chirp Time

Peak EIRP

Receiver		Antenna Factor (dB/m)	E-Field @1m (dBuV/m)	Chirps Correction Factor (dB)	EIRP (dBm)	Limit (dBm)
Reading (dBμV)	Detector					
70.57	PK	43.24	119.86	6.17	15.18	20

Note:

E-Field= Reading+ Antenna Factor+ Chirps Correction Factor

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

Measurement distance = 1m

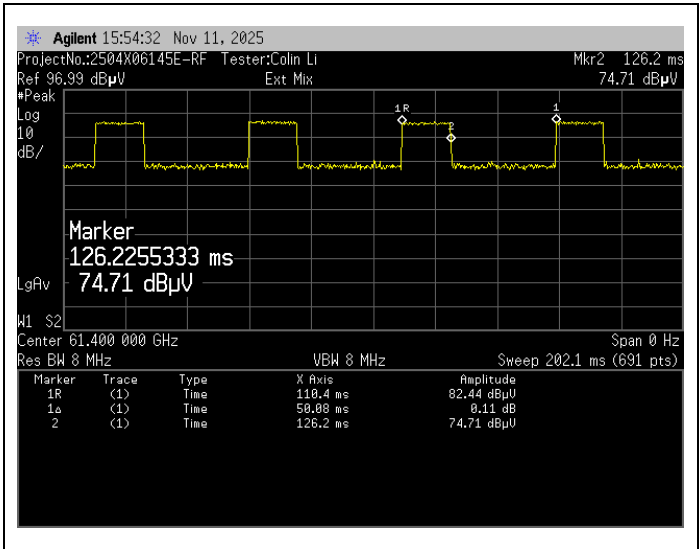
The Mixers and it's RF cables is compose a system for calibration.

The test data recorded was the maximum polarization.

Transmitter Off-times

Transmitter On (ms)	Observation Time (ms)	sum of continuous transmitter off-times (ms)	Limit (ms)
15.8	33	17.2	≥16.5

Note: Sum of Continuous Transmitter Off-times= Observation Time(33ms) - Ton



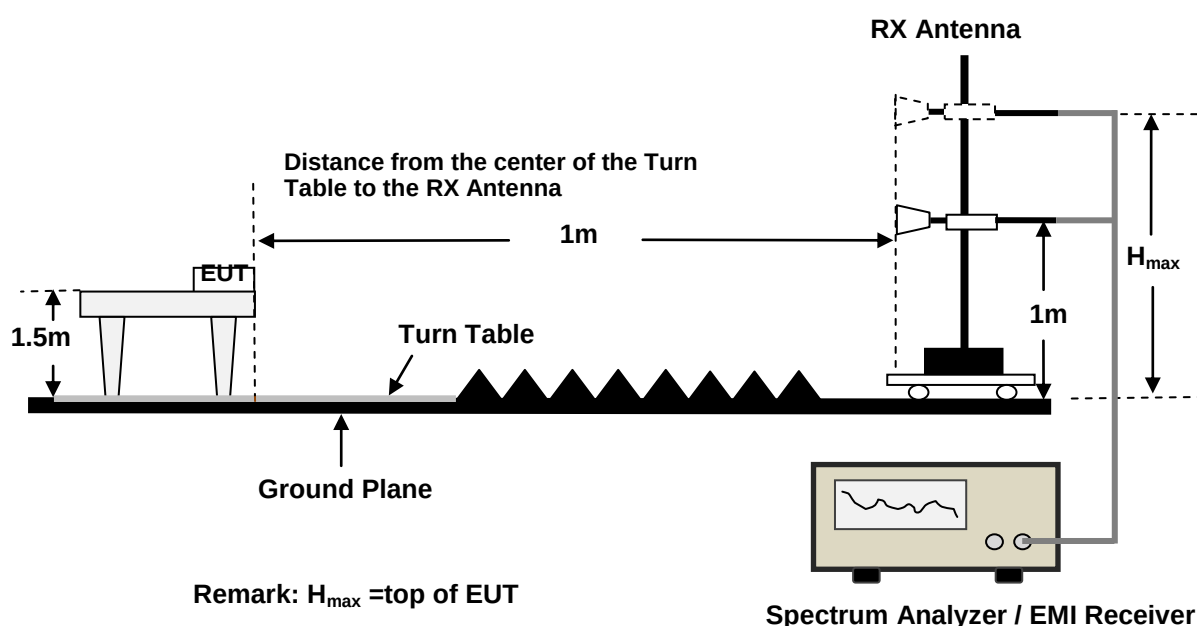
EMISSION BANDWIDTH

Applicable Standard

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).

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

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.

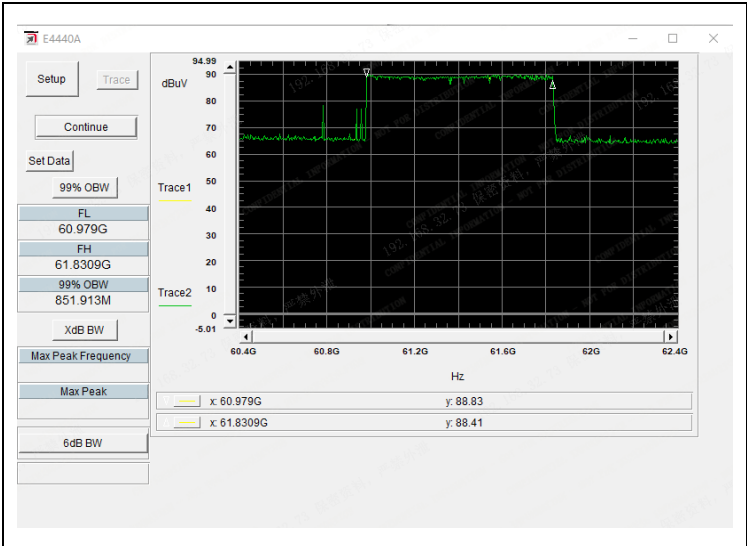
Test Data

Environmental Conditions

Temperature:	24.1 to 25.1 °C
Relative Humidity:	49 to 50 %
ATM Pressure:	101.1 kPa
Test Engineer:	Colin Lin
Test Date:	2025-11-11 to 2025-11-18
EUT Operation Mode:	Transmitting

Test Result: Compliance. Please refer below data.

99% Occupied Bandwidth (MHz)	FL (GHz)	Limit FL (GHz)	FH (GHz)	Limit FH (GHz)
851.913	60.979	60	61.8309	64



RADIATED EMISSIONS

Applicable Standard

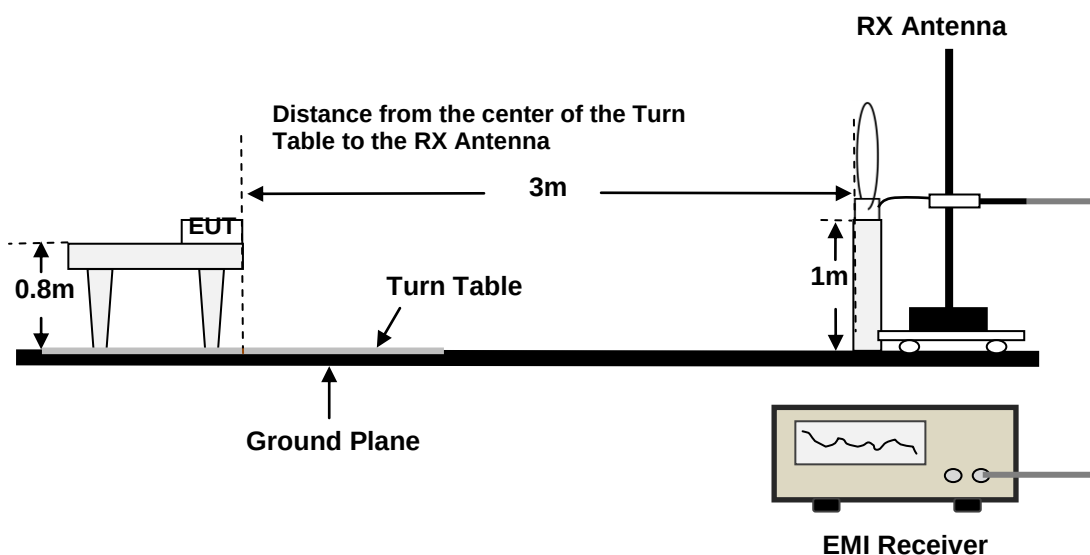
FCC §15.255(d)

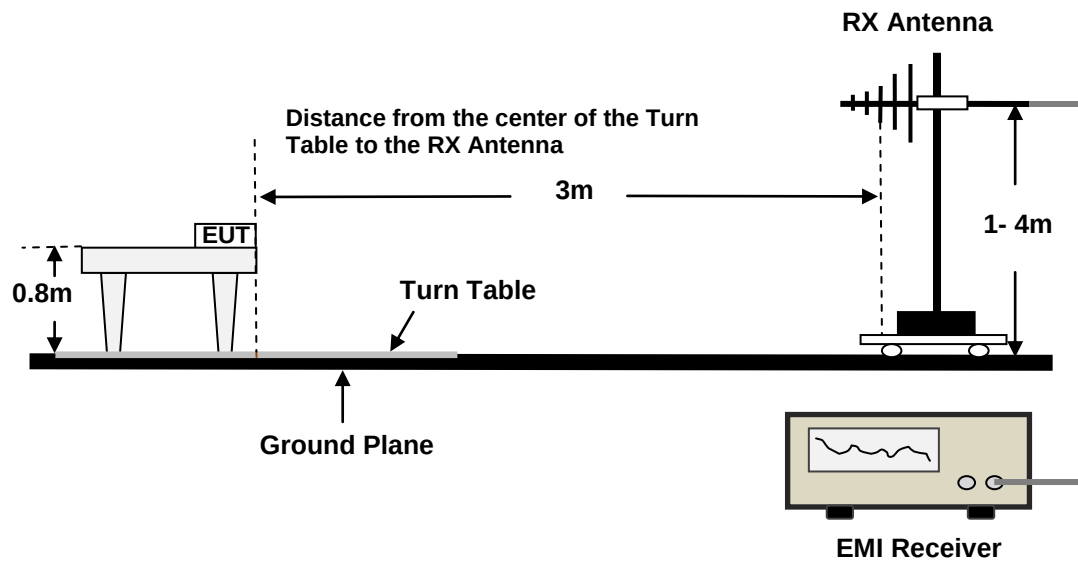
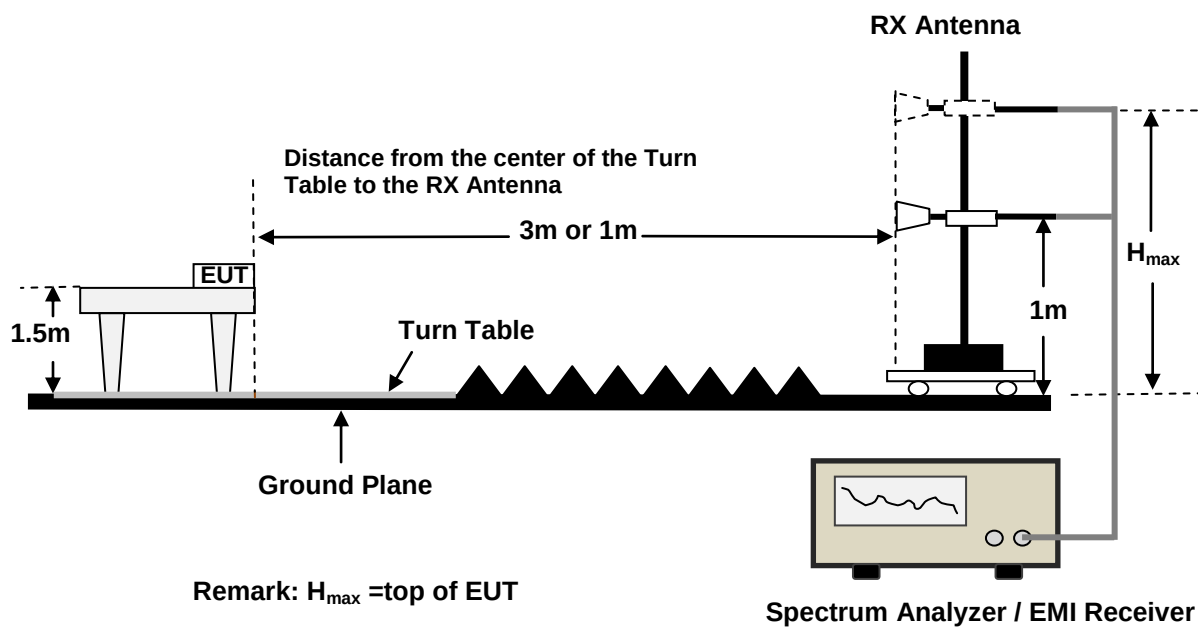
Limits on spurious emissions:

- (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.

EUT Setup

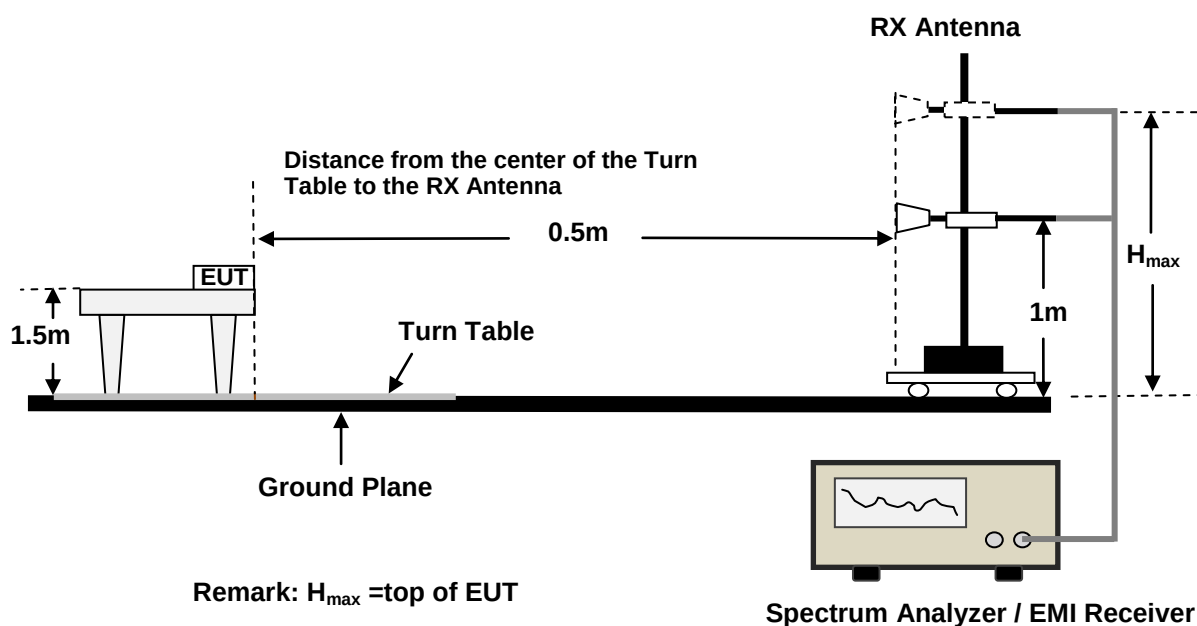
9kHz-30MHz:



30MHz - 1GHz:**1GHz - 90GHz:**

Note: 1-40GHz tested @3m, 40-90GHz tested @1m.

90GHz ~200GHz:



Boundary of the EUT, local AE and associated cabling and measurement distance for radiated emissions measurements:

The central point of the arrangement shall be positioned at the centre of the turntable. The measurement distance is the shortest horizontal distance between an imaginary circular periphery just encompassing this arrangement and the calibration point of the antenna. See as below Figure C.1 and C.2.

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, limits.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 200 GHz.

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	1 kHz	3kHz	/
QP		/	/	200 Hz
PK	150 kHz - 30 MHz	9 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	10 Hz	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.

Note4: 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 forl calibration, the conversion factor was added into the test Spectrum Analyzer in testing.

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

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

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
861/385	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:

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

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

Test Data

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

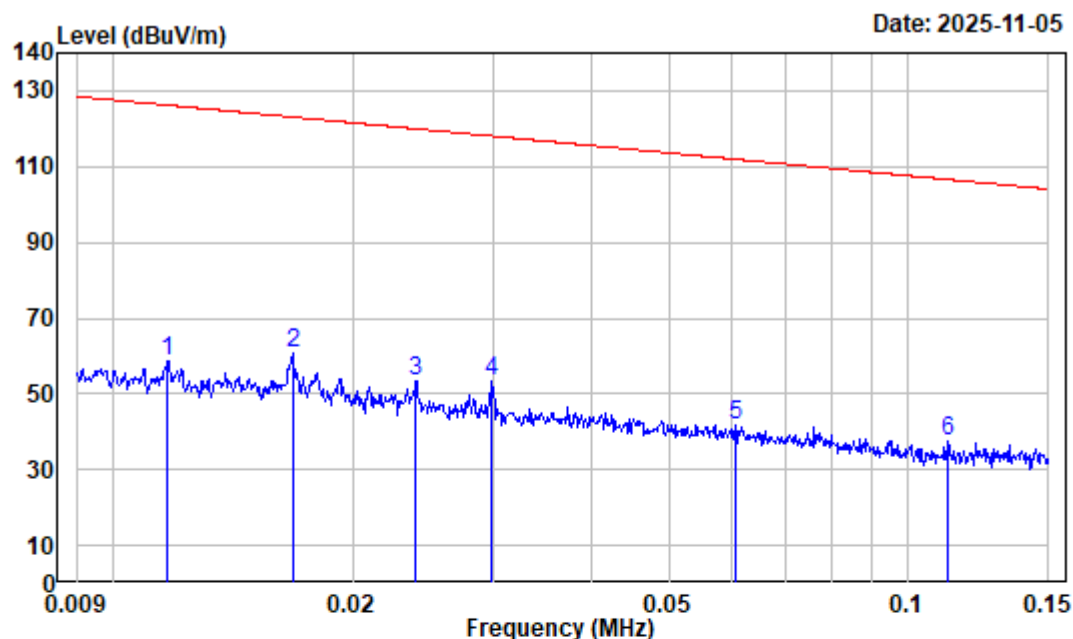
9kHz-1GHz

Environmental Conditions

Temperature:	25.5 °C
Relative Humidity:	57 %
ATM Pressure:	101.1 kPa
Test Engineer:	Colin Lin
Test Date:	2025-11-05
EUT Operation Mode:	Transmitting

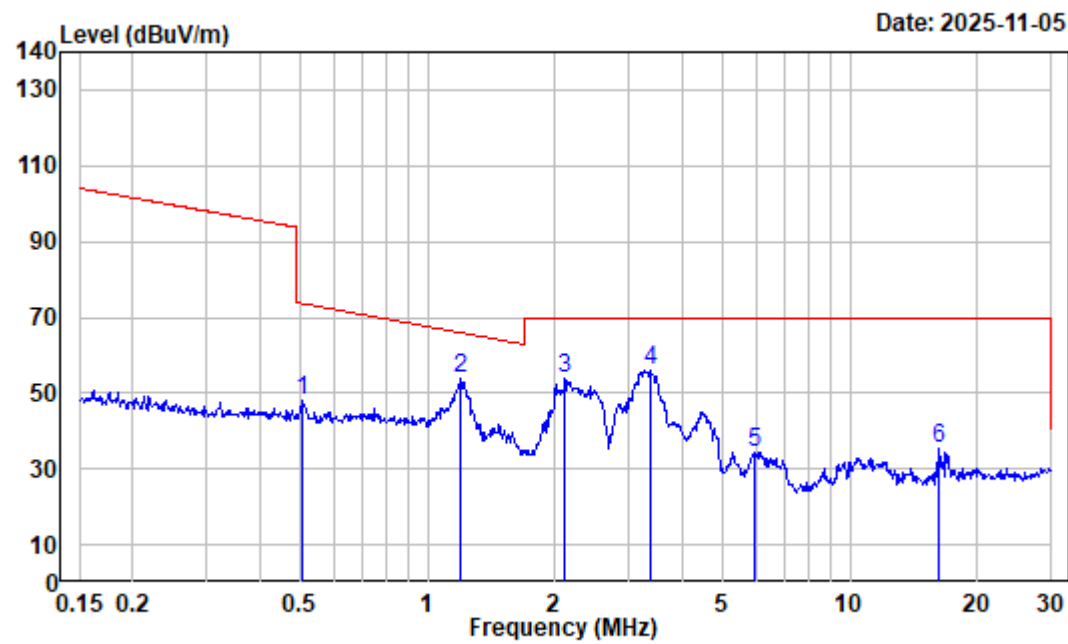
Test Result: Compliance, please refer to the below data.

9kHz~30MHz:



Site : Chamber
 Condition : 3m
 Job No. : 2504X06145E-RF
 Polarization : Parallel Tester: Colin Lin
 Test Mode : Radar Transmitting
 Receiver Setting: RBW:300Hz VBW:1kHz

	Freq	Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.012	35.06	23.75	58.81	126.22	-67.41	Peak
2	0.017	32.79	28.16	60.95	123.07	-62.12	Peak
3	0.024	29.60	23.62	53.22	119.99	-66.77	Peak
4	0.030	27.02	26.58	53.60	118.11	-64.51	Peak
5	0.061	21.27	20.42	41.69	111.93	-70.24	Peak
6	0.112	15.89	21.72	37.61	106.60	-68.99	Peak



Site : Chamber

Condition : 3m

Job No. : 2504X06145E-RF

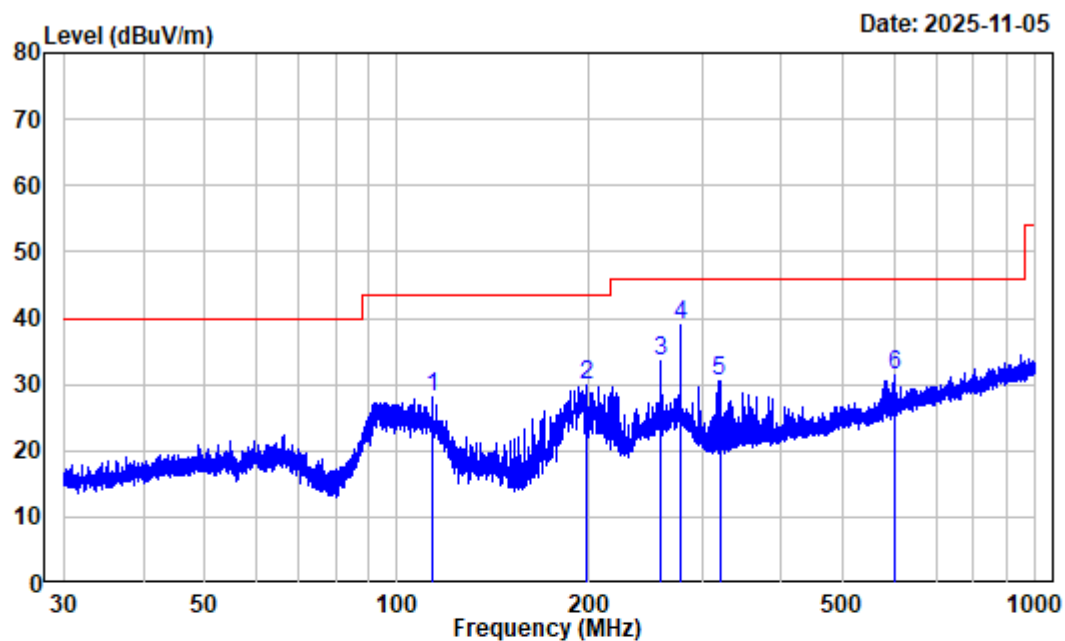
Polarization : Parallel Tester: Colin Lin

Test Mode : Radar 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	0.507	3.21	45.00	48.21	73.49	-25.28	Peak
2	1.197	-2.53	56.40	53.87	65.88	-12.01	Peak
3	2.110	-5.43	59.31	53.88	69.54	-15.66	Peak
4	3.364	-6.00	62.05	56.05	69.54	-13.49	Peak
5	5.929	-6.23	40.65	34.42	69.54	-35.12	Peak
6	16.226	-3.86	39.20	35.34	69.54	-34.20	Peak

30MHz~1GHz:



Site : Chamber

Condition : 3m HORIZONTAL

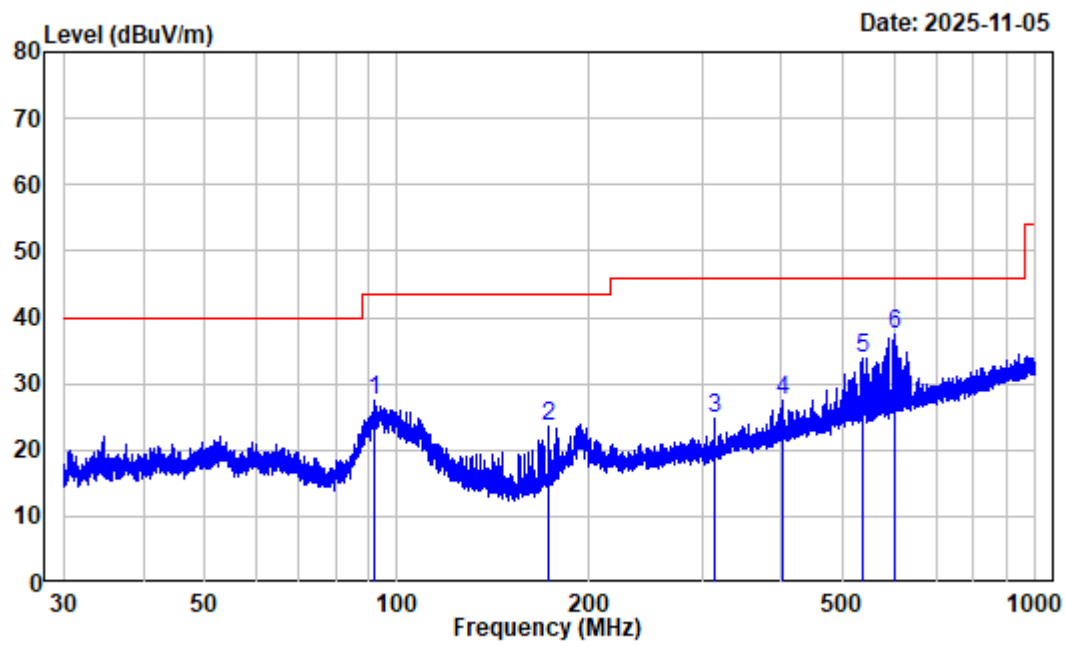
Job No. : 2504X06145E-RF

Tester: Colin Lin

Test Mode : Radar Transmitting

Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	113.714	-12.14	40.12	27.98	43.50	-15.52	Peak
2	197.893	-10.23	40.11	29.88	43.50	-13.62	Peak
3	259.348	-10.10	43.53	33.43	46.00	-12.57	Peak
4	278.433	-9.33	48.29	38.96	46.00	-7.04	Peak
5	320.077	-8.37	38.86	30.49	46.00	-15.51	Peak
6	600.110	-1.99	33.25	31.26	46.00	-14.74	Peak



Site : Chamber

Condition : 3m VERTICAL

Job No. : 2504X06145E-RF Tester: Colin Lin

Test Mode : Radar Transmitting

Receiver Setting: RBW:100kHz VBW:300kHz

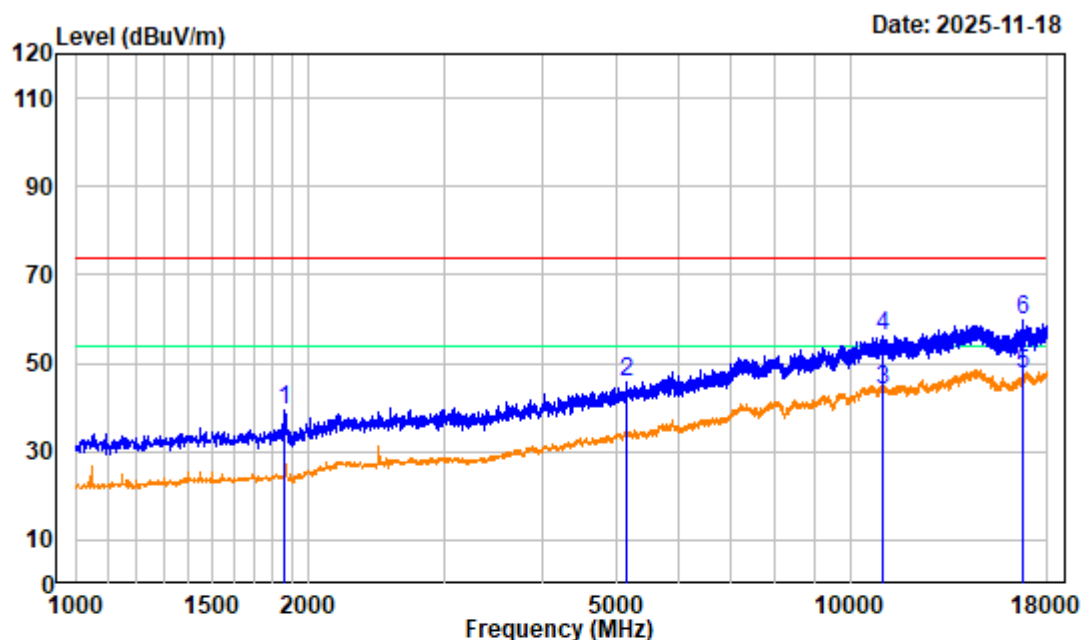
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	92.381	-12.95	40.38	27.43	43.50	-16.07	Peak
2	172.296	-13.45	36.88	23.43	43.50	-20.07	Peak
3	314.928	-8.62	33.26	24.64	46.00	-21.36	Peak
4	402.015	-5.96	33.39	27.43	46.00	-18.57	Peak
5	536.647	-3.53	37.41	33.88	46.00	-12.12	Peak
6	600.110	-1.99	39.51	37.52	46.00	-8.48	Peak

1GHz-40GHz

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	101.1 kPa
Test Engineer:	Roger Ling
Test Date:	2025-11-18
EUT Operation Mode:	Transmitting

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



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504X06145E-RF

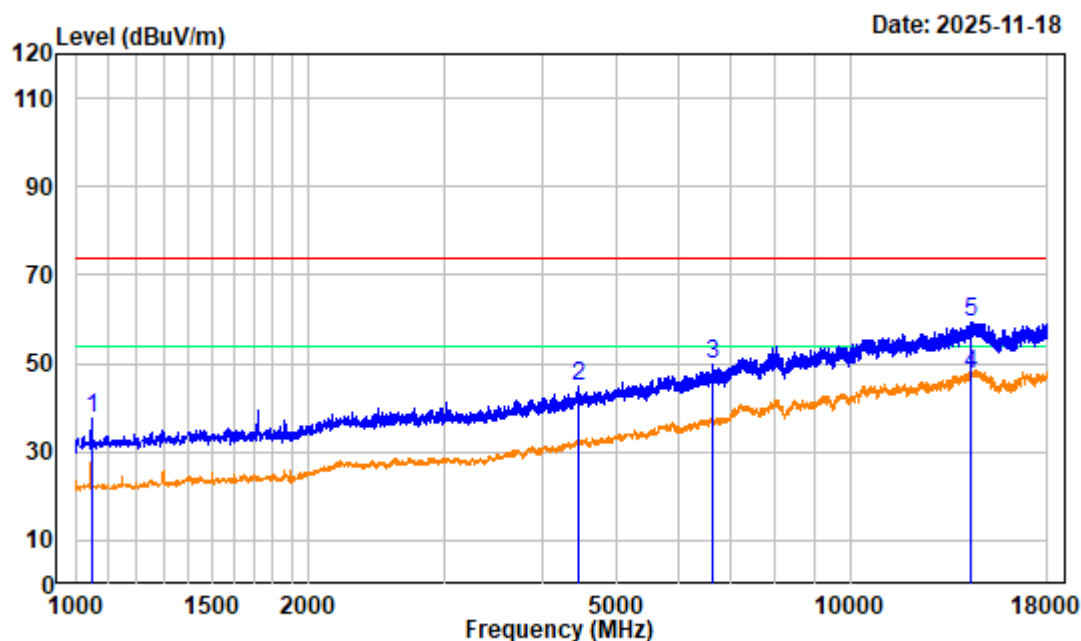
Test Mode : Transmitting

Tester: Roger.Ling

Note : 60G Rader

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	1862.750	-13.00	52.34	39.34	74.00	-34.66	Peak
2	5160.750	-5.92	51.71	45.79	74.00	-28.21	Peak
3	11059.750	5.15	38.77	43.92	54.00	-10.08	Average
4	11059.750	5.15	51.18	56.33	74.00	-17.67	Peak
5	16744.130	7.73	39.66	47.39	54.00	-6.61	average
6	16744.130	7.73	51.99	59.72	74.00	-14.28	peak



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504X06145E-RF

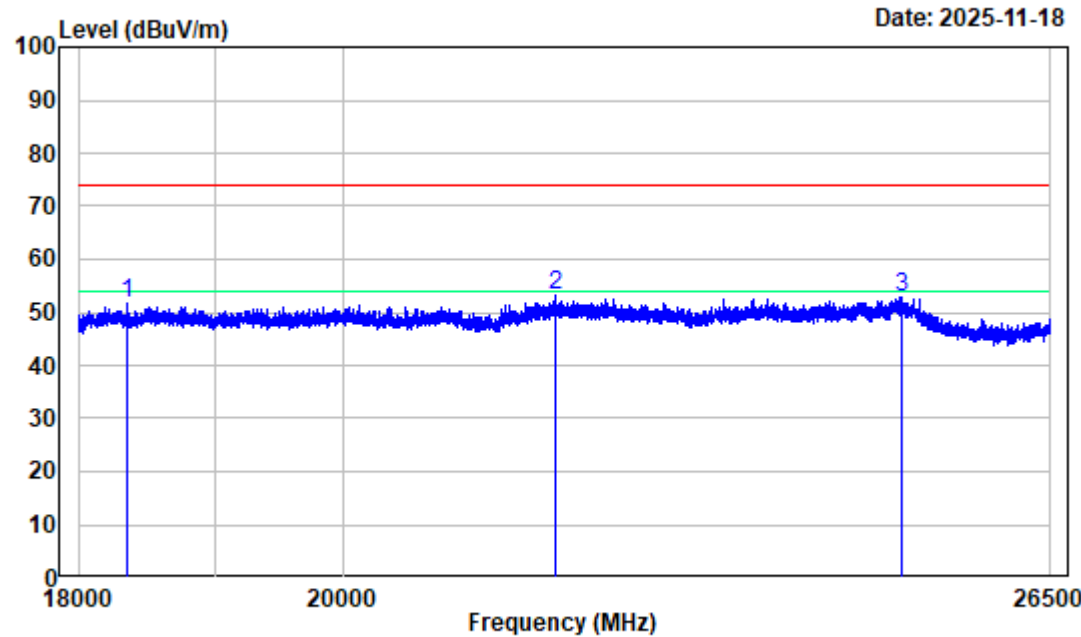
Test Mode : Transmitting

Tester: Roger.Ling

Note : 60G Rader

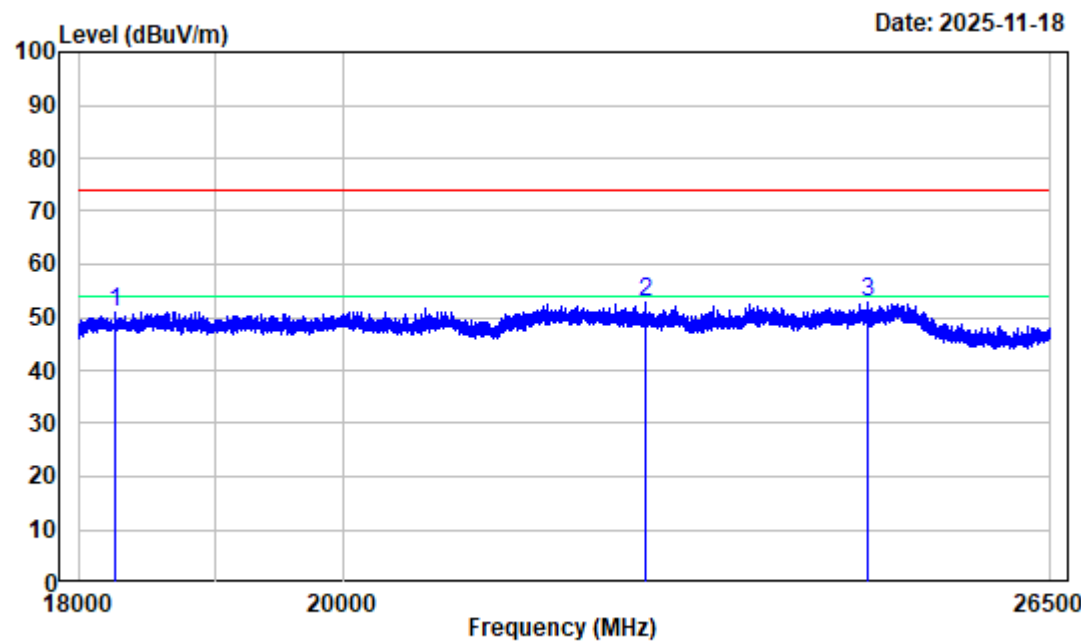
SA setting : Peak:RBW:1MHz,VBW:3MHz Ave:RBW:1MHz,VBW:5kHz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1048.875	-14.34	51.79	37.45	74.00	-36.55	Peak
2	4455.250	-7.12	51.94	44.82	74.00	-29.18	Peak
3	6633.375	-3.32	53.34	50.02	74.00	-23.98	Peak
4	14342.880	8.65	38.68	47.33	54.00	-6.67	average
5	14342.880	8.65	50.53	59.18	74.00	-14.82	peak



Site : chamber
Condition : 3m HORIZONTAL
Project No.: 2504X06145E-RF
Test Mode : Transmitting Tester:Roger.Ling
Note : 60G Rader
SA setting : Peak:RBW:1MHz,VBW:3MHz

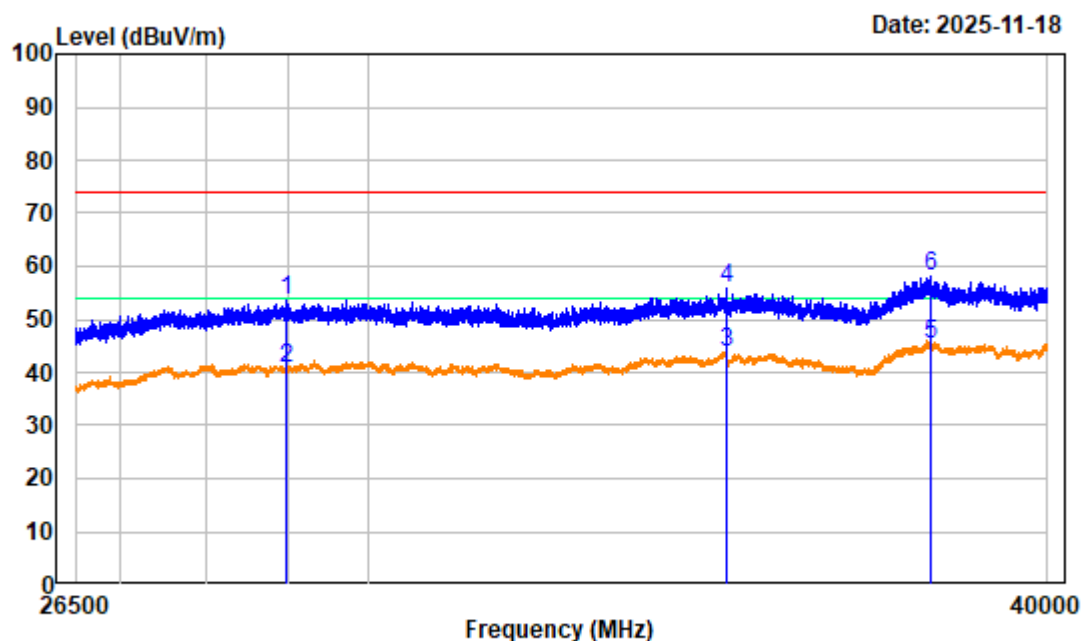
Freq	Factor	Read		Limit	Over	Remark
		Level	Level	Line	Limit	
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 18350.630	-5.16	56.79	51.63	74.00	-22.37	Peak
2 21763.380	0.06	53.02	53.08	74.00	-20.92	Peak
3 24975.310	4.27	48.41	52.68	74.00	-21.32	Peak



Site : chamber
Condition : 3m VERTICAL
Project No.: 2504X06145E-RF
Test Mode : Transmitting
Note : 60G Rader
SA setting : Peak:RBW:1MHz,VBW:3MHz

Tester:Roger.Ling

	Freq	Factor	Read		Limit	Over	Remark
			Level	Level			
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	18269.880	-5.27	56.40	51.13	74.00	-22.87	Peak
2	22563.440	0.89	51.90	52.79	74.00	-21.21	Peak
3	24633.190	3.48	49.18	52.66	74.00	-21.34	Peak



Site : chamber

Condition : 3m HORIZONTAL

Project No.: 2504X06145E-RF

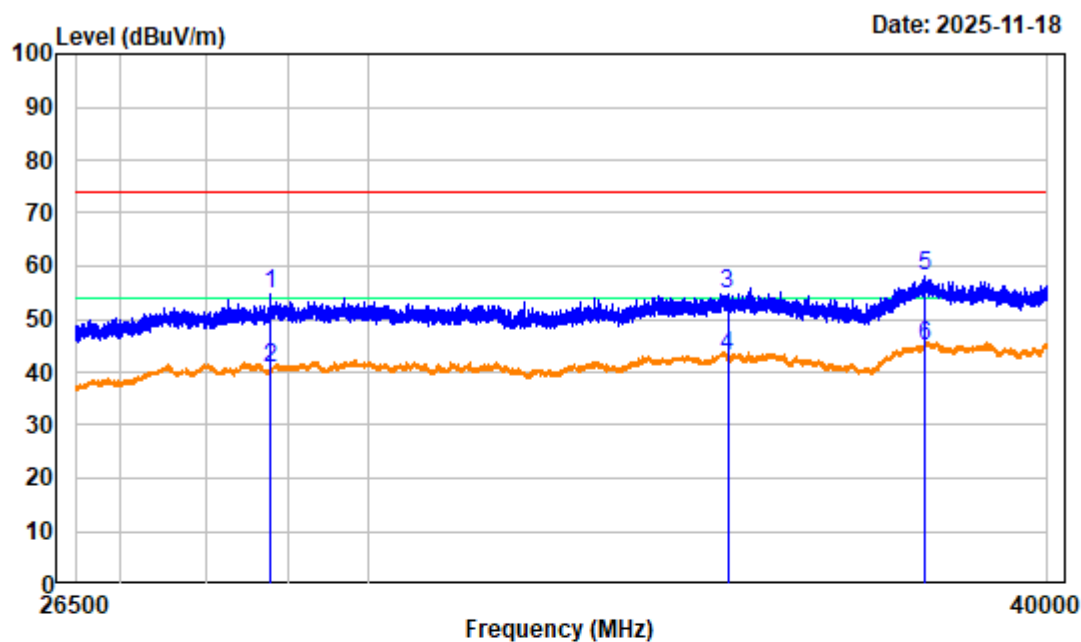
Test Mode : Transmitting

Tester: Roger.Ling

Note : 60G Rader

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	28967.130	4.25	49.29	53.54	74.00	-20.46	Peak
2	28967.130	4.25	36.33	40.58	54.00	-13.42	Average
3	34903.750	5.26	38.50	43.76	54.00	-10.24	Average
4	34903.750	5.26	50.48	55.74	74.00	-18.26	Peak
5	38069.500	7.79	37.34	45.13	54.00	-8.87	Average
6	38069.500	7.79	50.31	58.10	74.00	-15.90	Peak



Site : chamber

Condition : 3m VERTICAL

Project No.: 2504X06145E-RF

Test Mode : Transmitting

Tester: Roger.Ling

Note : 60G Rader

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	28783.190	4.09	50.58	54.67	74.00	-19.33	Peak
2	28783.190	4.09	36.54	40.63	54.00	-13.37	Average
3	34932.440	5.30	49.60	54.90	74.00	-19.10	Peak
4	34932.440	5.30	37.57	42.87	54.00	-11.13	Average
5	37969.940	7.91	50.14	58.05	74.00	-15.95	Peak
6	37969.940	7.91	37.17	45.08	54.00	-8.92	Average

40GHz - 200GHz

Environmental Conditions

Temperature:	24.1 to 25.1 °C
Relative Humidity:	49 to 50 %
ATM Pressure:	101.1 kPa
Test Engineer:	Colin Lin
Test Date:	2025-11-11 to 2025-11-18
EUT Operation Mode:	Transmitting

Test Result: Compliance. Please refer below data.

Frequency (GHz)	Receiver Reading (dBμV)	Polar (H/V)	Factor (dB/m)	Field Strength (dBμV/m)	Power Density (pW/cm ²)	Limit (pW/cm ²)
40.320	53.10	H	41.13	84.69	78.10	90.00
40.190	51.87	V	41.08	83.41	58.16	90.00
90.370	51.84	H	47.50	83.78	63.34	90.00
90.610	53.09	V	47.50	85.03	84.46	90.00

Note:

Factor = Antenna Factor

Field Strength = Reading + Factor + 20log(dMeas/dSpecLimit)

dMeas is the measurement distance, in m

dSpecLimit is the distance specified by the limit, in m

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

where

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

The Specified distance is 3m.

FREQUENCY STABILITY

Applicable Standard

FCC §15.255(f)

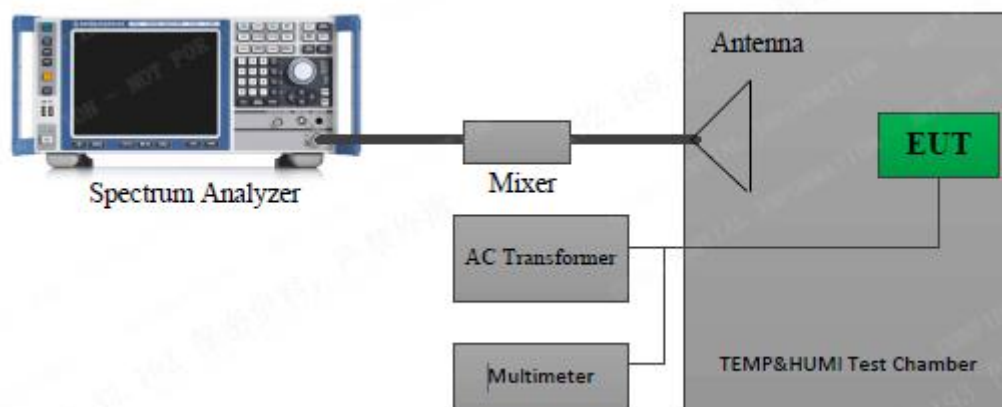
(f) Frequency stability. Fundamental emissions must be contained within the frequency bands specified in this section during all conditions of operation. Equipment is presumed to operate over the temperature range -20 to + 50 degrees Celsius with an input voltage variation of 85% to 115% of rated input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

Test Procedure

Refer 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.



Test Data

Environmental Conditions

Temperature:	24.1 to 25.1 °C
Relative Humidity:	49 to 50 %
ATM Pressure:	101.1 kPa
Test Engineer:	Colin Lin
Test Date:	2025-11-11 to 2025-11-18
EUT Operation Mode:	Transmitting

Test Result: Compliance. Please refer below data.

Temperature	Voltage	Frequency (GHz)			
°C	V _{DC}	f _L	f _H	f _L Limit	f _H Limit
-10	14.4	60.9788	61.8306	60	64
0	14.4	60.9786	61.8306	60	64
10	14.4	60.9787	61.8306	60	64
20	14.4	60.9790	61.8309	60	64
30	14.4	60.9787	61.8306	60	64
40	14.4	60.9788	61.8306	60	64
20	12	60.9788	61.8305	60	64
20	16	60.9785	61.8307	60	64

Note: The Voltage range was declared by manufacturer.

GROUP INSTALLTION

Applicable Standard

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.

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 2504X06145E-RF EUT External Photos and Attachment No.2 2504X06145E-RF EUT Internal Photos.

EXHIBIT B-TEST SETUP PHOTOGRAPHS

Please refer to the Attachment No.4 2504X06145E-RFE Test Photos.

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