TEST REPORT

FCC 60 GHz Test for RSMV2
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2408-FC007-R2

DATE OF ISSUE
September 10, 2024

Tested by
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Accredited by KOLAS, Republic of KOREA

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Applicant	**LG Electronics Inc.** 84, Wanam-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do 51554, Republic of Korea
Product Name Model Name	RF Module RSMV2
FCC ID	BEJ-RSMV2
Output Power	5.85 dBm
Date of Test	July 10, 2024 ~ September 05, 2024
Location of Test	■ Permanent Testing Lab ☐ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)
Test Standard Used	Part 15.255
Test Results	PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	August 09, 2024	Initial Release
1	September 05, 2024	-. Added test on AC Power line Conducted Emissions. -. Added equipment used in AC Power Line.
2	September 10, 2024	FCC ID modification

Notice

Content
Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance. The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s). The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***. When confirmation of authenticity of this test report is required, please contact www.hct.co.kr This test report provides test result(s) under the scope accredited by the Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA. (KOLAS (KS Q ISO/IEC 17025) Accreditation No. KT197)

CONTENTS

1. EUT DESCRIPTION

Model	RSMV2	
Additional Model	-	
EUT Type	RF module	
EUT Serial Number	S**01124300300-05**	
Power Supply	12.0 V	
Frequency Range	61.0 GHz ~ 61.5 GHz	
Modulation Type	FMCW	
EIRP	Peak	9.04 dBm
	Average	5.85 dBm
Date(s) of Tests	July 10, 2024 ~ September 05, 2024	

2. TEST METHODOLOGY

The measurement procedure described in the “American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices” (ANSI C63.10-2020) Operating Under 47 CFR § 15.255 were used in the measurement.

2.1 EUT CONFIGURATION

The EUT configuration for testing is installed on EIRP measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx Frequency that was for the purpose of the measurements.

2.3 GENERAL TEST PROCEDURES

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above the ground plane below 1 GHz and 1.5 m above 1 GHz with absorbers between the EUT and receiving antenna. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set far-field distance away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 8 of ANSI C63.10. (Version: 2020)

2.4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

3. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment's, which is traceable to recognized national standards.
Especially, all antennas(Up to 40 GHz) for measurement are calibrated in accordance with the requirements of C63.5 (Version : 2006).

4. FACILITIES AND ACCREDITATIONS

4.1 FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil,
Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA.
The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2014) and CISPR Publication 22.
Detailed description of test facility was submitted to the Commission and accepted dated March 11, 2024 (CAB identifier: KR0032).

4.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.
Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.
All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5. ANTENNA REQUIREMENTS

According to FCC 47 CFR § 15.203:

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 antennas of this E.U.T are permanently attached.

6. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014.

All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % level of confidence.

Parameter	Expanded Uncertainty (± dB)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.14 (Confidence level about 95 %, k=2)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.82 (Confidence level about 95 %, k=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.74 (Confidence level about 95 %, k=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.76 (Confidence level about 95 %, k=2)
Radiated Disturbance (Above 40 GHz)	5.52 (Confidence level about 95 %, k=2)

7. SUMMARY TEST OF RESULTS

Test Description	FCC Part Section(s)	Test Limit			Test Condition	Test Result
AC Power line Conducted Emissions	§ 15.207(C)	Frequency (MHz)	Qyasu-peak (dBμV)	Average (dBμV)	Conducted	PASS
		0.15 – 0.5	66 to 50	56 to 46		
		0.5 – 5	56	46		
		5 - 30	60	50		
Occupied Bandwidth	§ 2.1049	61.0 ~ 61.5 GHz			Radiated	PASS
RF Output Power	§ 15.255(c)(2)(v)	< EIRP 40 dBm (Average) < EIRP 43 dBm (Peak)				PASS
Unwanted emissions	§ 15.255(d)	0.009 – 0.490 MHz: 2400/F[kHz] 0.490 – 1.705 MHz: 24000/F[kHz] 1.705 – 30.0 MHz: 30 μV/m 30 – 88 MHz: 100 μV/m 88 – 216 MHz: 150 μV/m 216 – 960 MHz: 200 μV/m 960 – 40 000 MHz: 500 μV/m 40 – 200 GHz: < -9.96 dBm(EIRP)				PASS
Frequency stability	§ 15.255(f)	61.0 ~ 61.5 GHz				PASS

- All tests is performed by radiated measurement and applied below conditions.

: Measurement distance of fundamental tests is as follow.

Wavelength[m] = Speed of light[m/s] / Measurement frequency[Hz] = (3 x 10^{8}) / (66 x 10^{9}) = 0.0045

(2 X (EUT Antenna dimension)^{2}) / Wavelength = (2 X (0.00204)^{2})/ 0.0049 = 0.002 ***m***

(2 X (measurement Antenna dimension)^{2}) / Wavelength = (2 X (0.04179)^{2})/ 0.0049 = 0.71 ***m***

For fundamental and out-of-band emissions the largest far-field distance of either the EUT antenna or measurement antenna shall be used. **So, measurement distance is 1.0 m.**

: Spurious emissions measurement distance is shown in table below. (Far field)

Frequency Rage (GHz)	Wavelength (cm)	Far Field Distance (m)	Measured Distance (m)
40 ~ 60	0.50	1.354	1.5
60 ~ 90	0.33	0.856	1.0
90 ~ 140	0.21	0.572	1.0
140 ~ 200	0.15	0.365	1.0

8. TEST RESULT

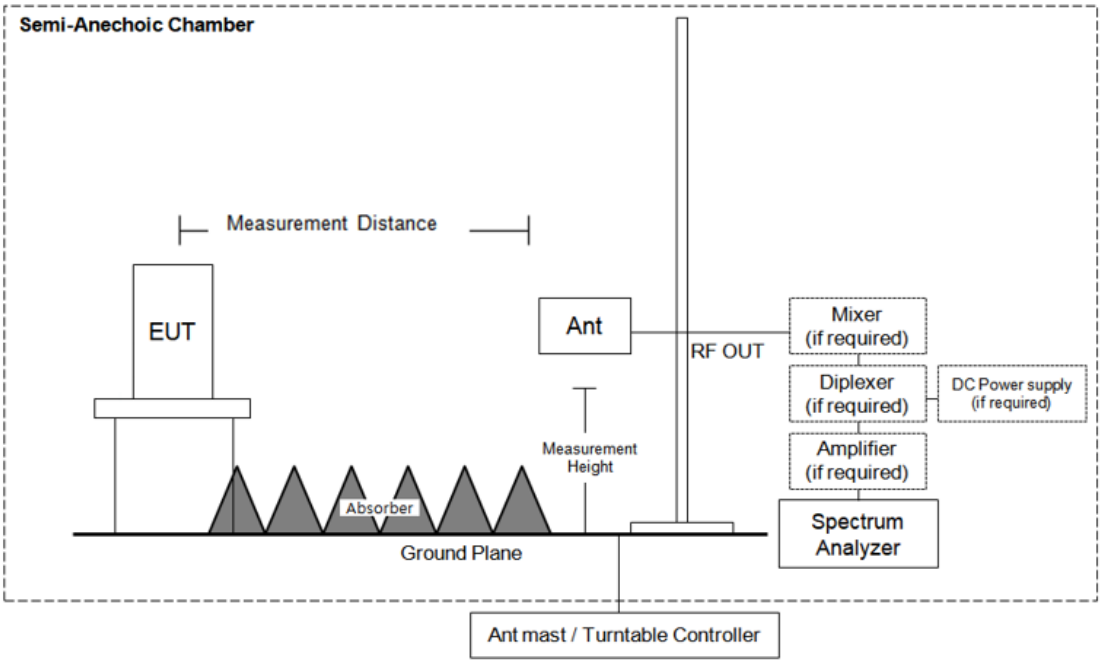
8.1 OCCUPIED BANDWIDTH

▣ TEST REQUIREMENT

§ 2.1049 Measurements required: Occupied bandwidth.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable:

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

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 × 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.

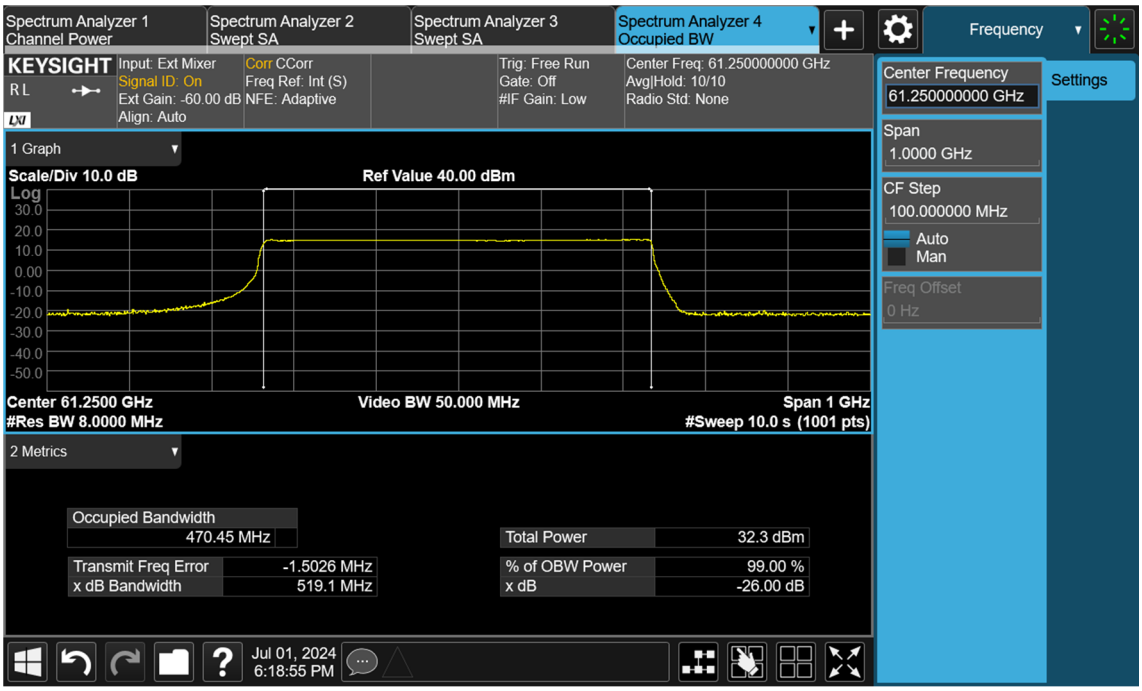
Note: It was measured as the maximum RBW value of the equipment we used.

▣ TEST RESULTS

TEST CONDITIONS:		Occupied Channel Bandwidth (GHz)
T nom	V nom	0.4705

▣ RESULT PLOTS

Occupied Channel Bandwidth plot



8.2 RF OUTPUT POWER

▣ TEST REQUIREMENT

§ 15.255 Operation within the band 57-71 GHz.

(c) ***Radiated power limits.***

For field disturbance sensors/radars that occupy 500 MHz bandwidth or less that are contained wholly within the frequency band 61.0-61.5 GHz, the average power of any emission, measured during the transmit interval, shall not exceed 40 dBm, and the peak power of any emission shall not exceed 43 dBm. In addition, the average power of any emission outside of the 61.0-61.5 GHz band, measured during the transmit interval, but still within the 57-71 GHz band, shall not exceed 10 dBm, and the peak power of any emission shall not exceed 13 dBm.

;

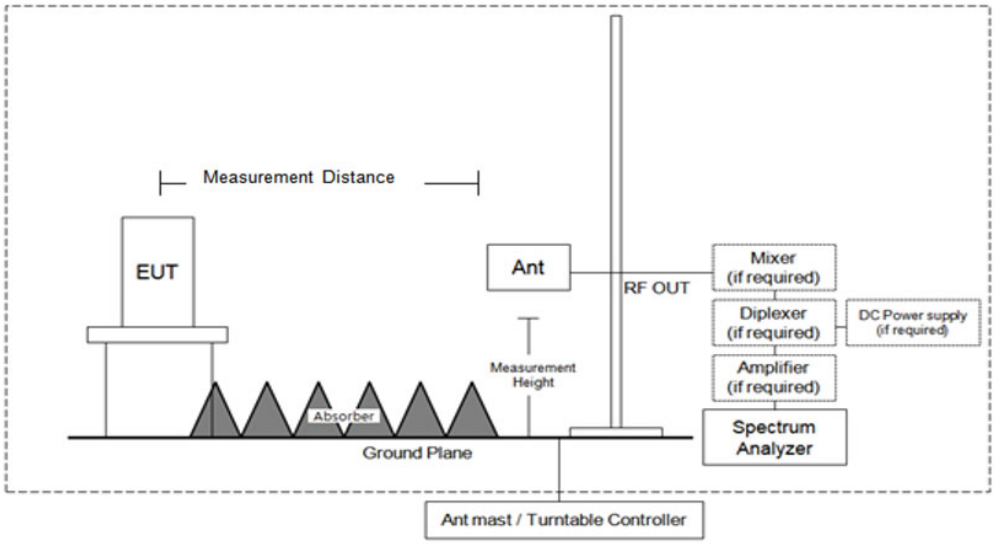
(e) ***Limits on transmitter conducted output power.***

(1) Except as specified in paragraph (e)(2) of this section, the peak transmitter conducted output power of devices other than field disturbance sensors/radars shall not exceed 500 mW. Depending on the gain of the antenna, it may be necessary to operate the intentional radiator using a lower peak transmitter output power in order to comply with the EIRP limits specified in paragraph (c) of this section.

(2) Devices other than field disturbance sensors/radars with an emission bandwidth of less than 100 megahertz must limit their peak transmitter conducted output power to the product of 500 mW times their emission bandwidth divided by 100 megahertz. For the purposes of this paragraph, emission bandwidth is defined as the instantaneous frequency range occupied by a steady state radiated signal with modulation, outside which the radiated power spectral density never exceeds 6 dB below the maximum radiated power spectral density in the band, as measured with a 100 kilohertz resolution bandwidth spectrum analyzer. The center frequency must be stationary during the measurement interval, even if not stationary during normal operation (*e.g.,* for frequency hopping devices).

▣ TEST CONFIGURATION

40 GHz – 200 GHz



▣ TEST PROCEDURE

Where applicable, the following procedure shall be used for measuring the field strength from millimeter-wave systems:

a) Set up the test as follows:

1) For conducted measurements, connect the external mixer or spectrum analyzer, with appropriate attenuation as needed to reduce the chance of damage or overload to the measurement instrumentation, to the output port of the EUT.

2) For radiated measurements, connect the measurement antenna for the fundamental frequency band to a spectrum analyzer via an external mixer, or directly to the spectrum analyzer if the instrument supports the required frequency range.

b) For all measurements

1) For pulsed emissions, the procedures in 4.1.5.2.4 and Annex C shall be used.

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

3) For any other emission, set spectrum analyzer RBW, VBW, detector, span, and so on, to the proper values.

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).

d) For conducted measurements:

1) Correct the power reading from the spectrum analyzer for any external gain and/or attenuation between the EUT and the spectrum analyzer. This is the conducted output power of the EUT.

2) Calculate the EIRP from the conducted output power of the EUT using Equation (23), and then convert to linear form using Equation (24).

e) Repeat the preceding sequence to determine the EIRP and where applicable, conducted power for each detector (peak and average) as required.

f) Repeat the preceding sequence for every operating configuration supported by the EUT.

▣ TEST RESULTS

Radiated Power (EIRP)

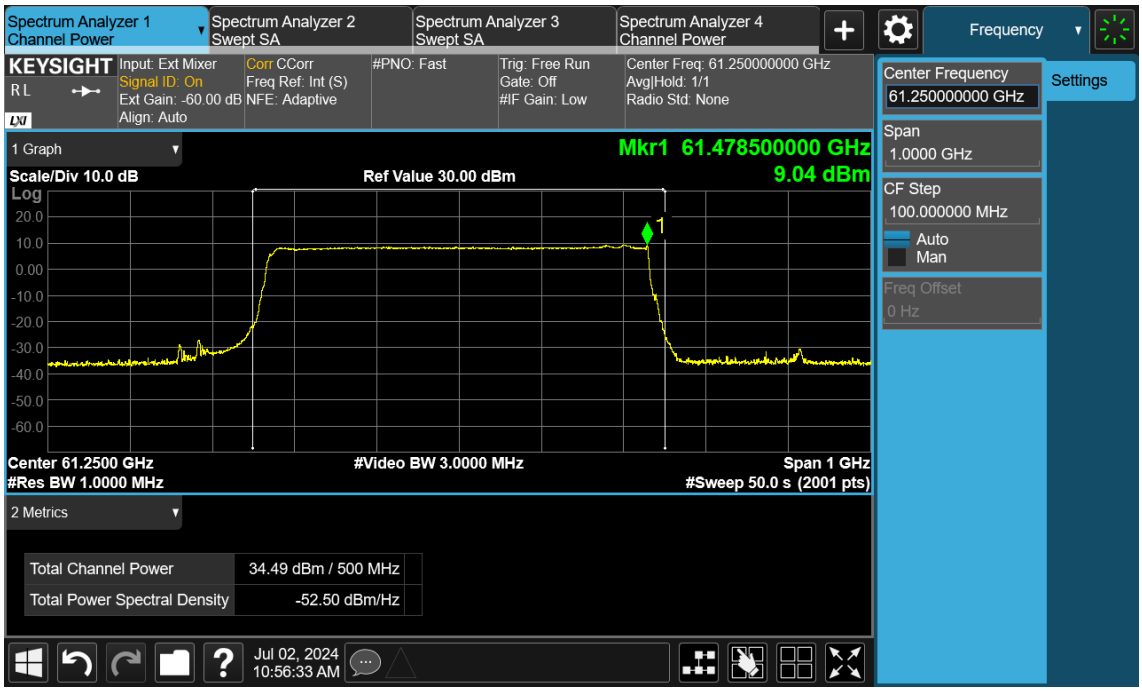
Frequency [GHz]	Ant. Pol. [H/V]	Total [dBm]	Limit [dBm]	Margin [dB]	Measurement Type
61.25	H	9.04	43	33.96	PK
61.25	H	5.85	40	34.15	AV

Note :

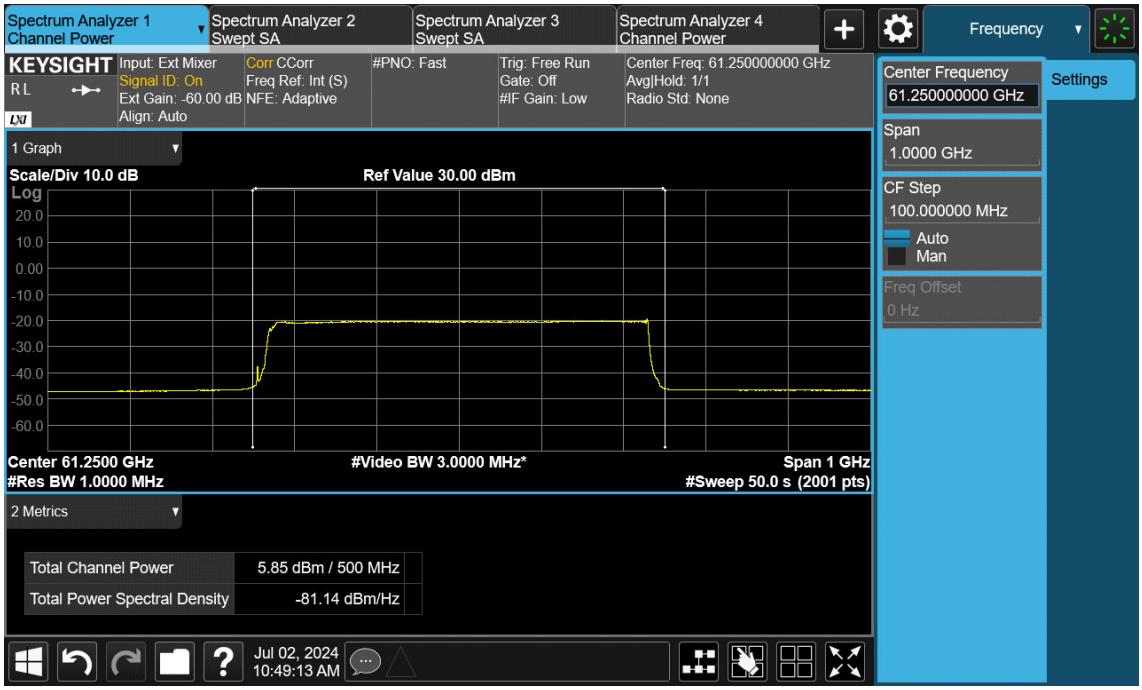
1. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
2. E.I.R.P. [dBm] = Source Module Power [dBm] + Ant. Gain [dBi]

▣ RESULT PLOTS

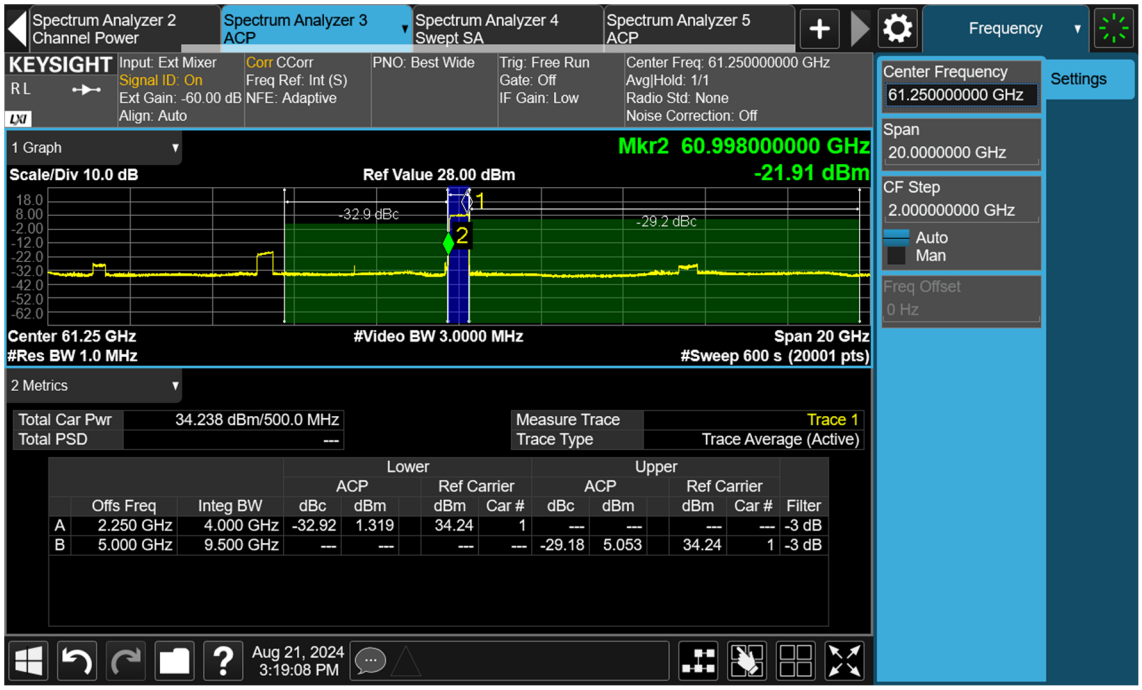
Peak



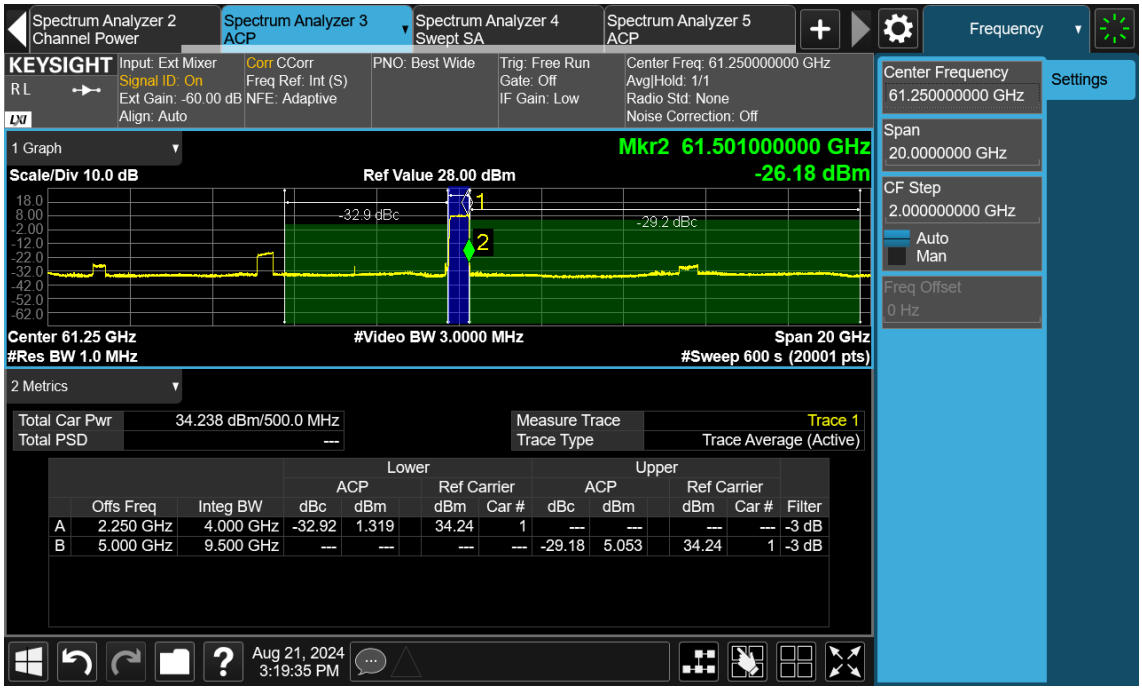
Aver



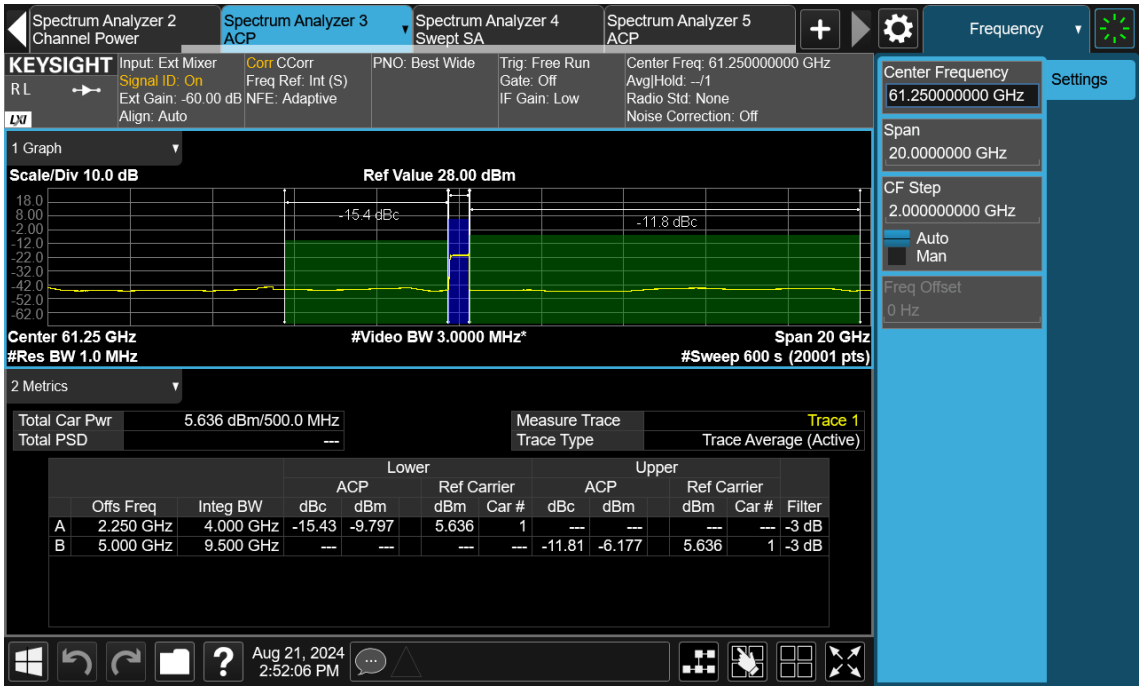
57 GHz – 71 GHz Peak(57 GHz – 61 GHz)



57 GHz – 71 GHz Peak(61.5 GHz – 71 GHz)



57 GHz – 71 GHz Aver



8.3 SPURIOUS EMISSIONS

▣ TEST REQUIREMENT

§ 15.255 Operation within the band 57-71 GHz.

(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.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meter)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

(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.

▣ TEST PROCEDURE

For below 40 GHz

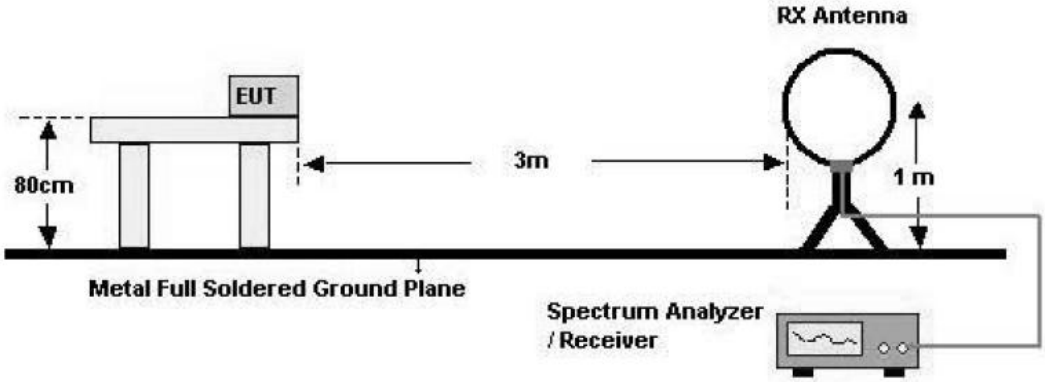
1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
4. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
5. Repeat above procedures until the measurements for all frequencies are complete.

For Above 40 GHz

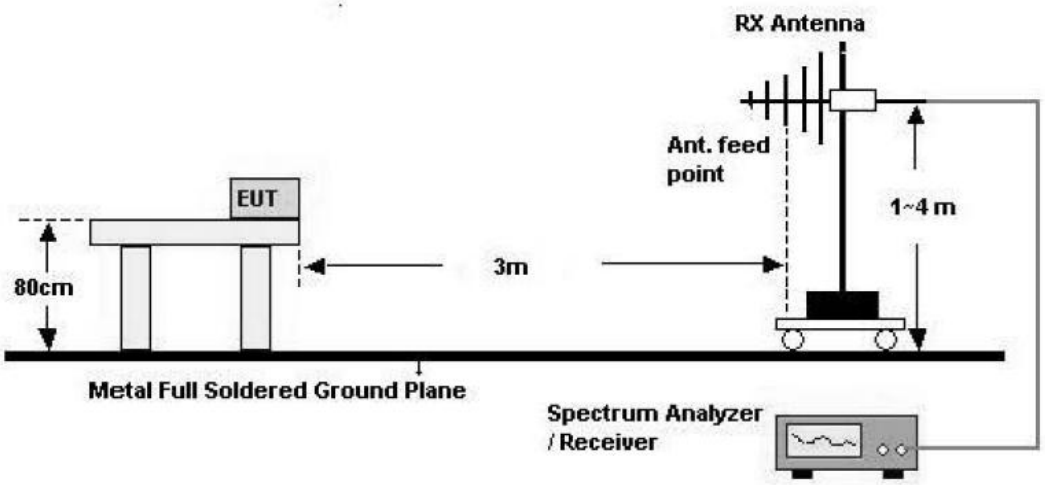
1. Connect the test antenna covering the appropriate frequency range toa spectrum analyzer via an external mixer to the spectrum analyzer.
2. Set spectrum analyzer RBW = 1 MHz, VBW = 3 MHz, average detector.
3. Calculate the distance to the far field boundaryand determine the maximum measurement distance.
4. Perform an exploratory search for emissions and determine the approximate direction at whicheach observed emission emanates from the EUT.
5. Exploratory measurements be made at a closer distance than the validated maximum measurement distance.
6. Perform a final measurement; begin with the test antenna at the approximate position where the maximum leveloccurred during the exploratory scan.
7. Slowly scan the test antenna around this position, slowly vary the test antennapolarization by rotating through at least 0° to 180°, and slowly vary the orientation ofthe test antenna to find thefinal position, polarization, and orientation at which the maximum level of theemission is observed.
8. Record the measured reading with the test antenna fixed at this maximized position, polarization, andorientation. Record the measurement distance.
9. Calculate the maximum field strength of the emission at the measurement distance and the adjusted/corrected power at the output of the test antenna.
10. Calculate the EIRP from the measured field strength andthen convert to the linear.
11. Calculate the power density at the distance specified by the limit from thefield strength at the distance specified by the limit.
12. Repeat the preceding sequence for every emission observed in the frequency band underinvestigation.

▣ TEST CONFIGURATION

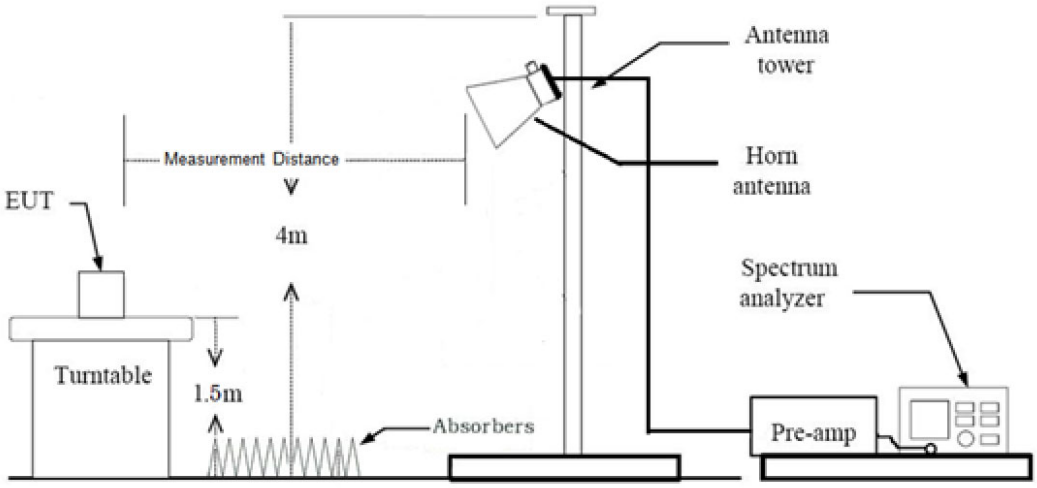
Below 30 MHz



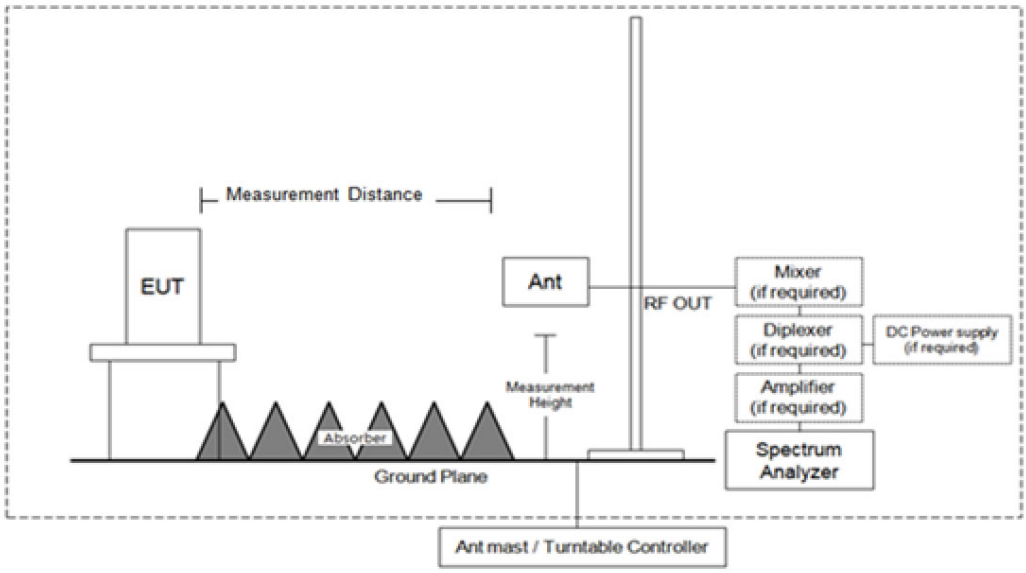
30 MHz - 1 GHz



1 GHz ~ 40 GHz



40 GHz – 200 GHz



▣ TEST RESULTS

9 kHz ~ 30 MHz

Operation Mode: Continuous TX Mode

Frequency	Reading	Ant. Factor	Cable Loss	Ant. Pol.	Total	Limit	Margin
MHz	dBμV	dB/m	dB	(H/V)	dBμV/m	dBμV/m	dB
No Critical peaks found							

Notes:

1. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Limit line = specific Limits (dBuV) + Distance extrapolation factor
3. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

30 MHz ~ 1 GHz

Operation Mode: Continuous TX Mode

Frequency	Reading	Ant. Factor	Cable Loss	Ant. Pol.	Total	Limit	Margin
MHz	dBμV	dB/m	dB	(H/V)	dBμV/m	dBμV/m	dB
No Critical peaks found							

Notes:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

1 GHz ~ 18 GHz

Operation Frequency: Continuous TX Mode

Frequency	Reading	A.F. + C.L. – Amp. G. + D.F.	Ant. Pol.	Total	Limit	Margin
[GHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]
No Critical peaks found						

※ A.F.: Antenna Factor, C.L.: Cable Loss, Amp. G.: Amplifier Gain, D.F.: Distance Factor

18 GHz – 40 GHz

Operation Frequency: Continuous TX Mode

Frequency	Reading	A.F. + C.L. – Amp. G. + D.F.	Ant. Pol.	Total	Limit	Margin
[GHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]
No Critical peaks found						

※ A.F.: Antenna Factor, C.L.: Cable Loss, Amp. G.: Amplifier Gain, D.F.: Distance Factor

40 GHz ~ 200 GHz

Operation Frequency: Continuous TX Mode

Frequency	Reading	A.F. + C.L. – Amp. G. + D.F.	Ant. Pol.	Total	Limit	Margin
[GHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]
No Critical peaks found						

※ A.F.: Antenna Factor, C.L.: Cable Loss, Amp. G.: Amplifier Gain, D.F.: Distance Factor

Notes:

1. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
2. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
3. Total = Reading Value + Antenna Factor + Cable Loss – Amplifier Gain + Distance Factor
4. Distance extrapolation factor = 20 log (test distance / specific distance) (dB)
5. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

8.4 FREQUENCY STABILITY

▣ TEST REQUIREMENT

§ 15.255 Operation within the band 57-71 GHz.

(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

The transmitter output is connected to the Spectrum Analyzer.

- RBW = 8 MHz.
- VBW = 50 MHz
- Detector = Peak
- Trace mode = max hold
- Sweep = auto couple
- Allow the trace to stabilize

Frequency stability was investigated at 10°C intervals from -20°C to +50°C after the unit stabilized, and the readings were recorded in tabular format.

The voltage supplied to the EUT is 12.0 V, and the reference temperature was set at 20°C.

The voltage was varied between 11.4 V and 12.6 V, as declared by the manufacturer.

▣ TEST RESULTS

Reference: 12 V at 20°c

Voltage	Temp.	Low Frequency	Deviation	High Frequency	Deviation
(V)	(°C)	(GHz)	(GHz)	(GHz)	(GHz)
12.0	+20(Ref)	61.0170	-	61.4770	-
	-20	61.0230	0.006	61.4810	0.004
	0	61.0150	-0.002	61.4780	0.001
	10	61.0184	0.001	61.4800	0.003
	30	61.0252	0.008	61.4900	0.013
	40	61.0210	0.004	61.4810	0.004
	50	61.0180	0.001	61.4780	0.001
11.4	20	61.0190	0.002	61.4770	0.000
12.6	20	61.0150	-0.002	61.4780	0.001

8.5 AC Power line Conducted Emissions

▣ TEST REQUIREMENT

Limit

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56[a]	56 to 46[a]
0.50 to 5	56	46
5 to 30	60	50

[a]Decreases with the logarithm of the frequency.

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Annex A for the actual connections between EUT and support equipment.

Test Procedure

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors : Quasi Peak and Average Detector.

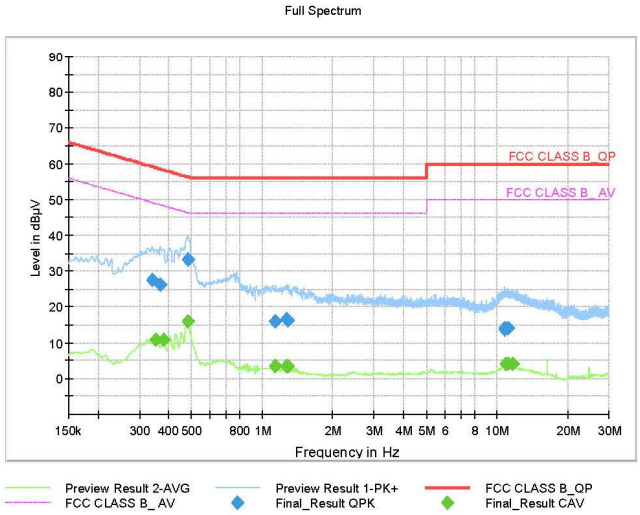
▣ TEST RESULTS

RSMV_FCC 1 / 1

Test Report

Common Information

EUT : RSMV2
Operating Conditions : 60 GHz
Comment :



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.3413	27.40	59.17	31.78	9.000	N	9.5
0.3705	26.10	58.49	32.39	9.000	N	9.6
0.4808	33.29	56.33	23.04	9.000	N	9.6
1.1368	16.00	56.00	40.00	9.000	N	9.6
1.2673	16.74	56.00	39.26	9.000	N	9.6
1.2853	16.27	56.00	39.73	9.000	N	9.6
10.7735	14.07	60.00	45.93	9.000	N	9.8
10.7938	13.83	60.00	46.17	9.000	N	9.8
11.1853	13.92	60.00	46.08	9.000	N	9.8

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.3525	10.83	48.90	38.08	9.000	N	9.6
0.3795	10.89	48.29	37.40	9.000	N	9.6
0.4808	16.00	46.33	30.33	9.000	N	9.6
1.1368	3.33	46.00	42.67	9.000	N	9.6
1.2673	3.54	46.00	42.46	9.000	N	9.6
1.2875	3.49	46.00	42.51	9.000	N	9.6
10.9265	4.05	50.00	45.95	9.000	L1	9.8
11.1965	4.26	50.00	45.74	9.000	L1	9.8
11.5993	3.99	50.00	46.01	9.000	L1	9.8

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9. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Antenna Position Tower	MA4640/800-XP-EP	Innco system	N/A	N/A	N/A
Turn Table	DS2000-S	Innco systems	N/A	N/A	N/A
Controller(Antenna mast & Turn Table)	CO3000	Innco systems	CO3000/1251/48920320/P	N/A	N/A
Temperature & Humidity Chamber	PL-4KP	ESPEC	14021890	09/27/2024	Annual
Spectrum Analyzer	FSV40-N	ROHDE & SCHWARZ	101068-SZ	08/30/2024	Annual
Spectrum Analyzer	N9030B	Keysight	MY60070602	10/05/2024	Annual
Spectrum Analyzer	FSW85	Rohde & Schwarz	101256	10/13/2024	Annual
Spectrum Analyzer	FSP40	Rohde & Schwarz	100843	10/30/2024	Annual
Loop Antenna	FMZB 1513	Schwarzbeck	1513-175	01/16/2025	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	08/16/2024	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1191	11/07/2025	Biennial
Horn Antenna	BBHA 9170	Schwarzbeck	BBHA9170541	11/01/2025	Biennial
Horn Antenna	WR-19 Horn Antenna	OML INC.	M19RH-180423-1	03/07/2026	Biennial
Horn Antenna	WR-12 Horn Antenna	OML INC.	M12RH-180423-1	03/07/2026	Biennial
Horn Antenna	WR-08 Horn Antenna	OML INC.	M08RH-180501-1	03/07/2026	Biennial
Horn Antenna	WR-05 Horn Antenna	OML INC.	M05RH-180501-1	03/07/2026	Biennial
Horn Antenna	SAR-2309-15-S2	ERAVANT	08394-01	12/23/2024	Biennial
Harmonic Mixer	WR-19	VDI	SAX 771	03/06/2025	Annual
Harmonic Mixer	WR-15	VDI	SAX 936	07/12/2025	Annual
Harmonic Mixer	WR-12	VDI	SAX 773	03/06/2025	Annual
Harmonic Mixer	WR-08	VDI	SAX 779	03/06/2025	Annual
Harmonic Mixer	WR-05	VDI	SAX 774	03/06/2025	Annual
Source Module	WR-19	OML INC.	S19MS-A-160516-1	07/12/2025	Annual
Source Module	WR-12	OML INC.	S12MS-A-160419-1	07/12/2025	Annual
Source Module	WR-08	OML INC.	S08MS-A-160419-1	07/12/2025	Annual
Source Module	WR-05	OML INC.	S05MS-A-160419-1	07/12/2025	Annual
Low Noise Amplifier	TK-PA1840H	TESTEK	170011-L	10/20/2024	Annual
LNA(0.1 ~ 18 GHz)	FBSR-04C	T&M system	S4L6	04/11/2025	Annual
RF Switching System	FBSR-04C	TNM system	S4L1	04/11/2025	Annual
EMI Test Receiver	ESR7	Rohde & Schwarz	101910	07/02/2025	Annual
LISN	ENV216	Rohde & Schwarz	102245	07/17/2025	Annual

Notes:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

10. ANNEX A_TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2408-FC007-P