

TEST REPORT

Application No.: KSCR2606001431HS

FCC ID: 2BSI6-VISE0025

Applicant: Cisa Indústria, Comércio e Representação de Equipamentos Agrícolas LTDA

Address of Applicant: Highway GO 213, unnumbered, Block GL, Lot 06 — Solar de Caldas Novas — City: Caldas Novas — State: Goiás — ZIP: 75696-058 — Country: Brazil

Manufacturer: Cisa Indústria, Comércio e Representação de Equipamentos Agrícolas LTDA

Address of Manufacturer: Highway GO 213, unnumbered, Block GL, Lot 06 — Solar de Caldas Novas — City: Caldas Novas — State: Goiás — ZIP: 75696-058 — Country: Brazil

Factory: Cisa Indústria, Comércio e Representação de Equipamentos Agrícolas LTDA

Address of Factory: Highway GO 213, unnumbered, Block GL, Lot 06 — Solar de Caldas Novas — City: Caldas Novas — State: Goiás — ZIP: 75696-058 — Country: Brazil

Equipment Under Test (EUT):

EUT Name: Relative Flow Sensor

Model No.: VSRF24

Remark: Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

Trade Mark: J.ASSY

Standard(s) : 47 CFR Part 15, Subpart C 15.249

Date of Receipt: 2026-06-12

Date of Test: 2026-06-13 to 2026-07-20

Date of Issue: 2026-07-28

Test Result:
Pass*

* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Version	Description	Date	Remark
00	Original	2026-07-28	/

Authorized for issue by:				
Prepared By		Damon Zhou		
		Damon_Zhou/Project Engineer		
Approved By		Terry Hou		
		Terry Hou /Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.249	N/A	47 CFR Part 15, Subpart C 15.203	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Field Strength of the Fundamental Signal (15.249(a))	47 CFR Part 15, Subpart C 15.249	ANSI C63.10-2020+Cor 1-2023 Section 6.5&6.6	47 CFR Part 15, Subpart C 15.249(a)	Pass
Restricted Band Around Fundamental Frequency		ANSI C63.10-2020+Cor 1-2023 Section 6.10.5	47 CFR Part 15, Subpart C 15.205 & 15.249(d) & 15.209	Pass
Radiated Emissions Below 1GHz		ANSI C63.10-2020+COR 1-2023 Section 6.4&6.5	47 CFR Part 15, Subpart C 15.209 & 15.249 (a),(d)	Pass
Radiated Emissions Above 1GHz		ANSI C63.10-2020+COR 1-2023 Section 6.6	47 CFR Part 15, Subpart C 15.209 & 15.249 (a),(d)	Pass
20dB Bandwidth		ANSI C63.10-2020+COR 1-2023 Section 6.9	47 CFR Part 15, Subpart C 15.215	Pass

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 7.2V By 2*3.6V LiSOCL2 primary batteries
Test voltage:	DC 7.2V
Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK
Number of Channels:	79
Channel Spacing:	1MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	0.34 dBi (Provided by manufacturer)

4.2 Power level setting using in test:

Channel	Power setting
2402	Default
2440	Default
2480	Default

4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
--	--	--	--
The EUT has been tested as an independent unit.			

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%
Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA).

- **FCC (Designation Number: CN1172)**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory.

- **ISED (CAB Identifier: CN0072)**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 2324E

- **VCCI (Member No:1938)**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	07/09/2025 07/06/2026	07/08/2026 07/05/2027
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	12/17/2025	12/16/2026
3	Signal Generator	Agilent	E8257C	KS301066	07/22/2025 07/07/2026	07/21/2026 07/06/2027
4	Loop Antenna (9KHz-30MHz)	COM-POWER	AL-130R	KUS1806E001	07/11/2025 07/07/2026	07/10/2026 07/06/2027
5	Bilog Antenna (30MHz-1GHz)	TESEQ	CBL 6112D	KUS1806E005	07/12/2025 07/07/2026	07/11/2026 07/06/2027
6	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	01/11/2026	01/10/2028
7	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	01/11/2026	01/10/2028
8	Amplifier(30MHz~1GHz)	TST	LNA009100G30	KSEM061	12/18/2025	12/17/2026
9	Amplifier(400MHz~8GHz)	TST	LNA004080G30	KSEM062	12/18/2025	12/17/2026
10	Amplifier(1GHz~18GHz)	TST	LNA010180G45	KSEM039	07/09/2025 07/07/2026	07/08/2026 07/06/2027
11	Amplifier(18~40GHz)	TST	LNA180400G40	KSEM038	07/09/2025 07/07/2026	07/08/2026 07/06/2027
12	RF Test Cable	REBES MICROWAVE	A81-SMSM-10M	CZ301097- CZ301100	11/14/2025	11/13/2026
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	12/30/2025	12/29/2026
14	Software	ESE	E3_V 6.111221a	/	NCR	NCR
15	Measurement Software	Tonscend	JS32-RE V5.0.0.1	/	NCR	NCR
16	Measurement Software	Tonscend	JS32-RSE V5.0.0.0	/	NCR	NCR

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

15.203 requirement:

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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is PIFA antenna and no consideration of replacement. The best case gain of the antenna is 0.34dBi.

Antenna location: Refer to Internal photos

7 Radio Spectrum Matter Test Results

7.1 Field Strength of the Fundamental Signal (15.249(a))

Test Requirement 47 CFR Part 15, Subpart C 15.249(a)

Test Method: ANSI C63.10-2020+COR 1-2023 Section 6.5&6.6

Limit:

Fundamental frequency(MHz)	Field strength of fundamental(millivolts/meter)	Field strength of harmonics(microvolts/meter)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	2500

Remark: The frequencies above 1000MHz are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

For fundamental frequency in "902-928MHz", the field strength of fundamental is based on Quasi-Peak.

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

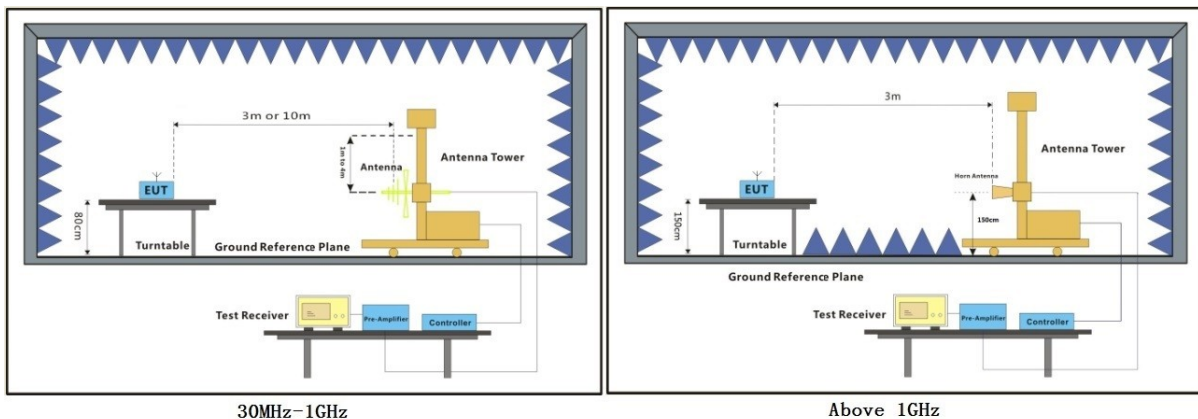
Humidity: 45.6 % RH

Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_ Keep the EUT in transmitting with modulation mode.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
2402	91.44	0.31	91.75	94	-2.25	Peak	Horizontal
	91.56	0.31	91.87	94	-2.13	Peak	Vertical

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
2440	91.57	0.34	91.91	94	-2.09	Peak	Horizontal
	91.75	0.34	92.09	94	-1.91	Peak	Vertical

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
2480	91.77	0.97	92.74	94	-1.26	Peak	Horizontal
	91.74	0.97	92.71	94	-1.29	Peak	Vertical

Remark:

- 1) The basic equation with a sample calculation is as follows: Level = Read Level + Factor.

(The Factor is calculated by adding the Antenna Factor, Cable Loss and Preamp Factor)

If the Peak value below the Average Limit, the Average test doesn't perform for this submission.

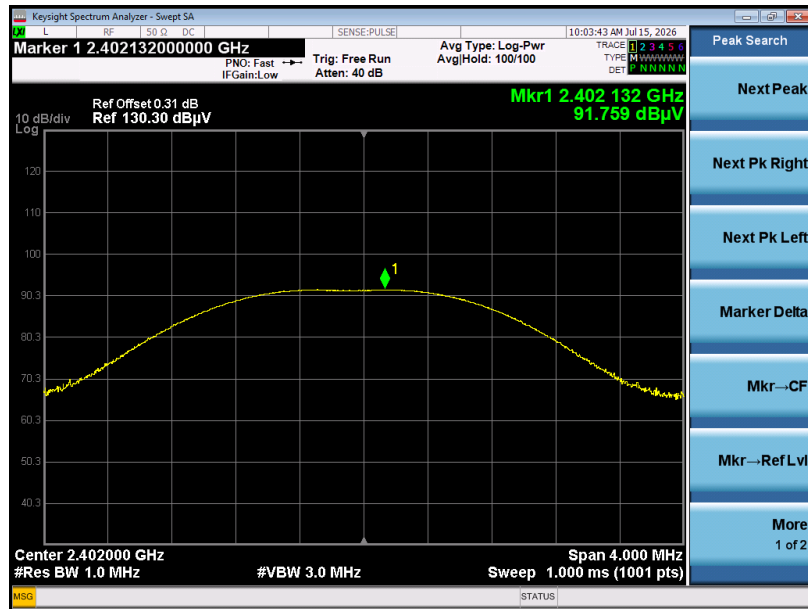


Report No.: KSCR260600143101

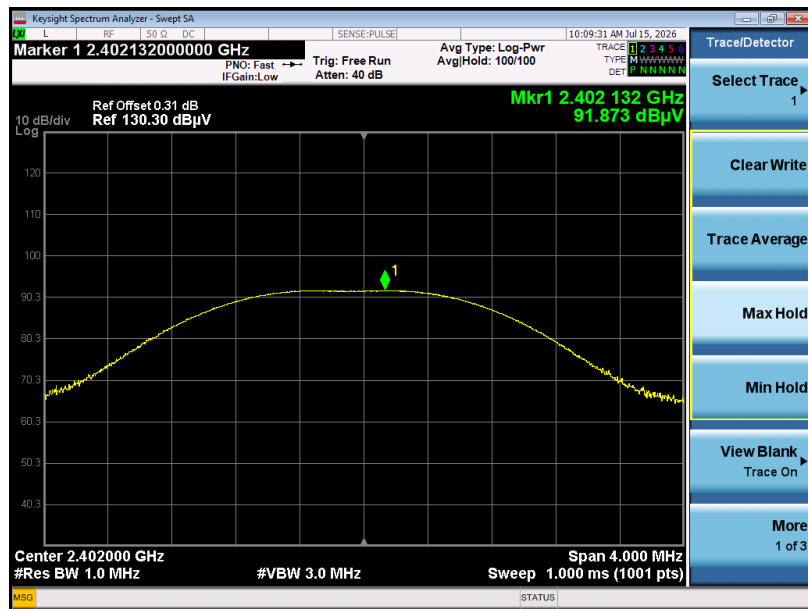
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Test Plot:

2402MHz Horizontal



2402MHz Vertical

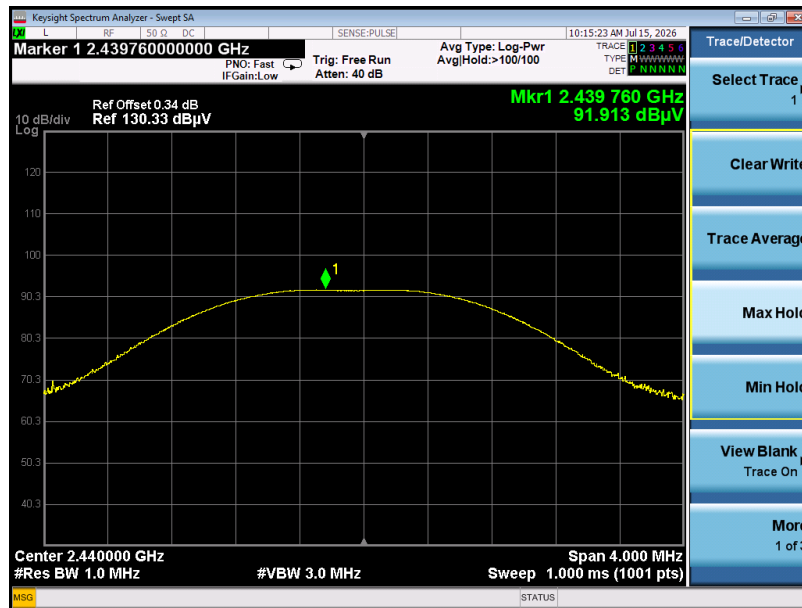




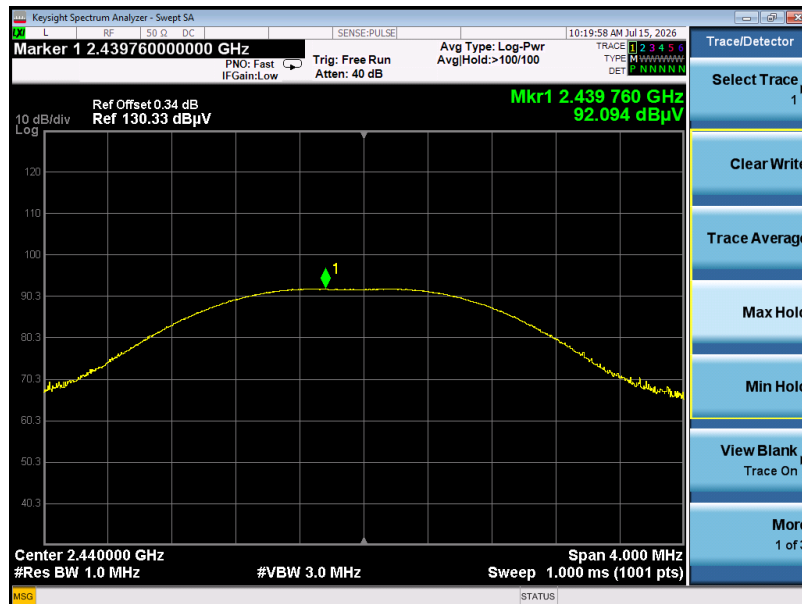
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2440MHz Horizontal



2440MHz Vertical

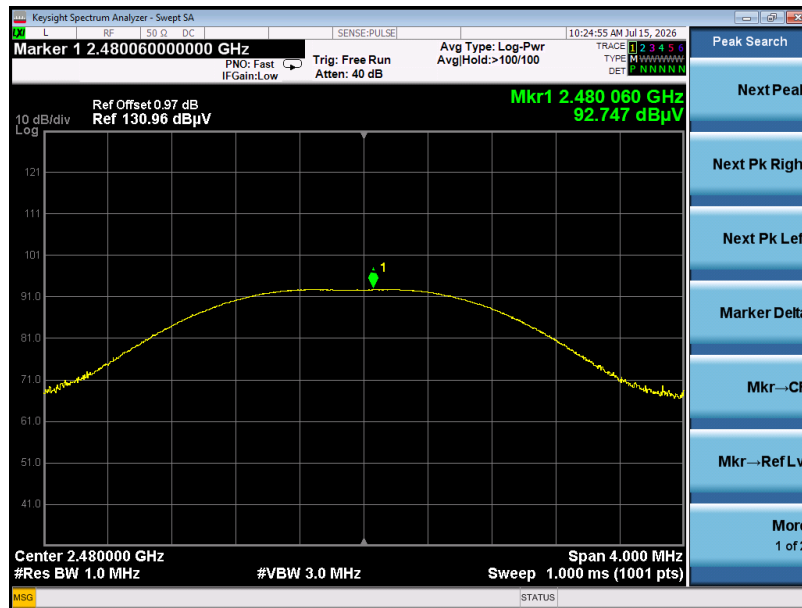




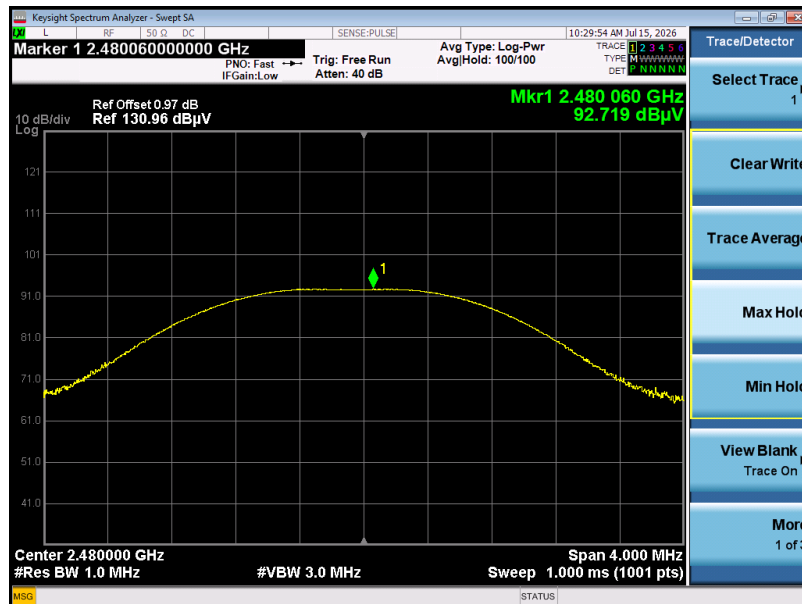
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2480MHz Horizontal



2480MHz Vertical



7.2 Restricted Band Around Fundamental Frequency

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.249(d) & 15.209

Test Method: ANSI C63.10-2020+COR 1-2023 Section 6.10.5

Limit:

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
Above 1GHz	74.0	Peak Value

Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

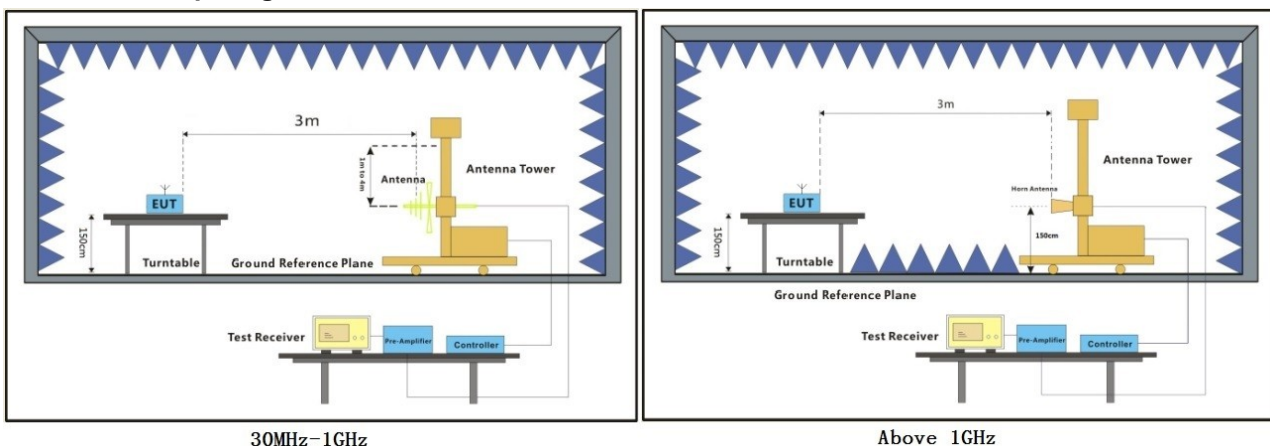
Humidity: 45.6 % RH

Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in transmitting with modulation mode.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8m above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3m or 10m away from the interference-receiving antenna, which was mounted on the variable-height antenna tower.
- c. The antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1m to 4m (for the test frequency of below 30MHz, the antenna was tuned to heights 1m) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. At frequencies below 1GHz, measurements may be performed at a distance different to specified in the regulations.

Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor+ Aux Factor (if applicable)

The aux factor needs to be added when measurements are performed at a distance other than the limit distance provided.

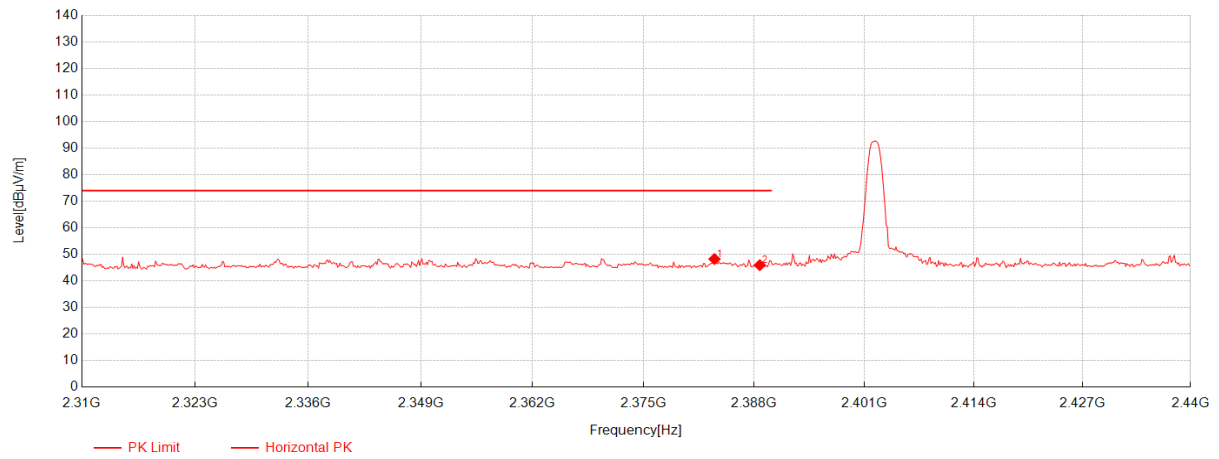
EX. Below 30MHz, Aux Factor = 40 dB/decade of distance, the aux factor is $40\log(3/300) = -80\text{dB}$ (for 3m test distance).

EX. Above 30MHz, Aux Factor = 20 dB/decade of distance, the aux factor is $20\log(10/3) = 10.46\text{dB}$ (for 10m test distance).

2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

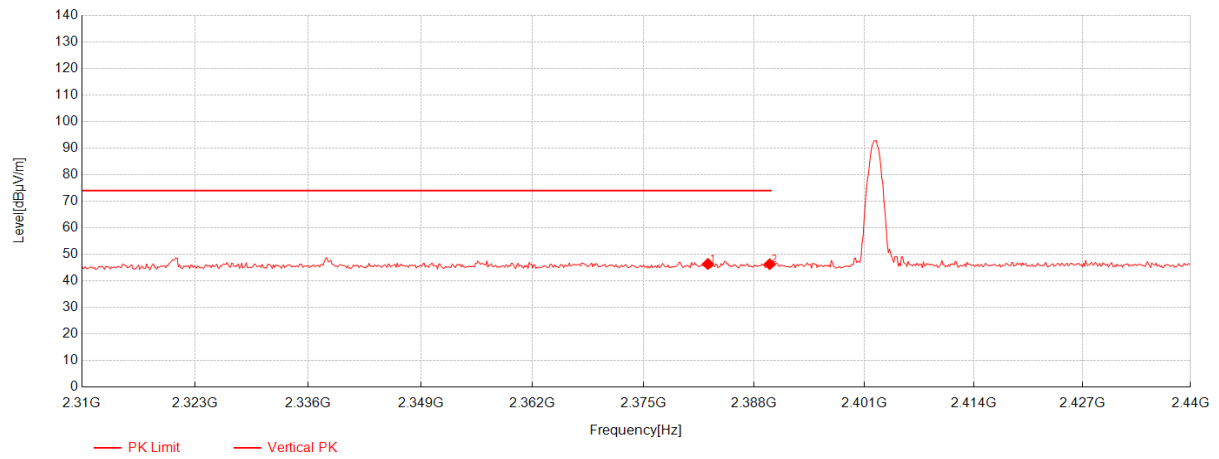
3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the worst-case test curve is displayed.

Test mode: 00 ; Polarity: Horizontal ; Channel :2400MHz



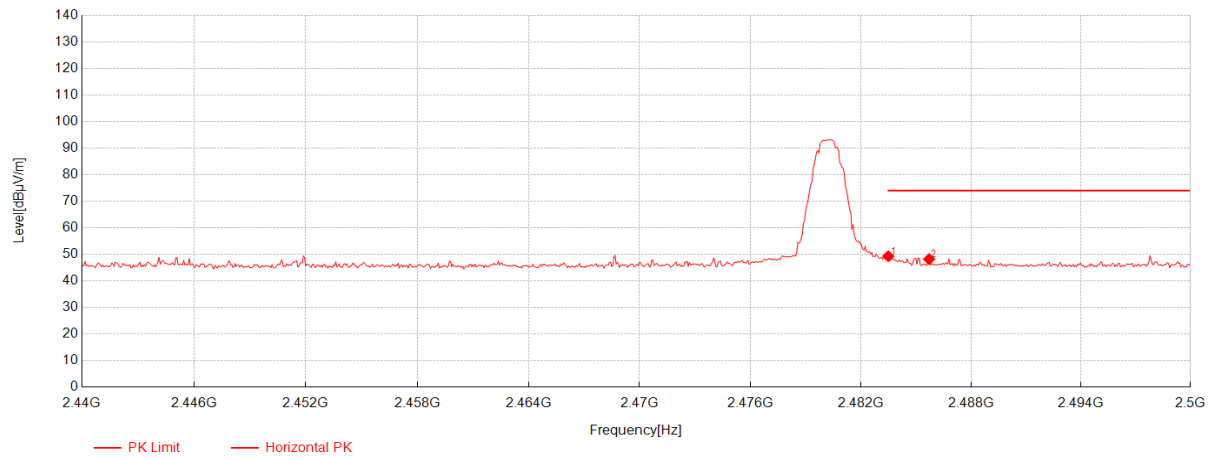
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2383.32	47.73	26.63	-26.16	48.20	74.00	25.80	Horizontal
2	2388.65	45.35	26.69	-26.13	45.91	74.00	28.09	Horizontal

Test mode: 00 ; Polarity: Vertical ; Channel :2400MHz



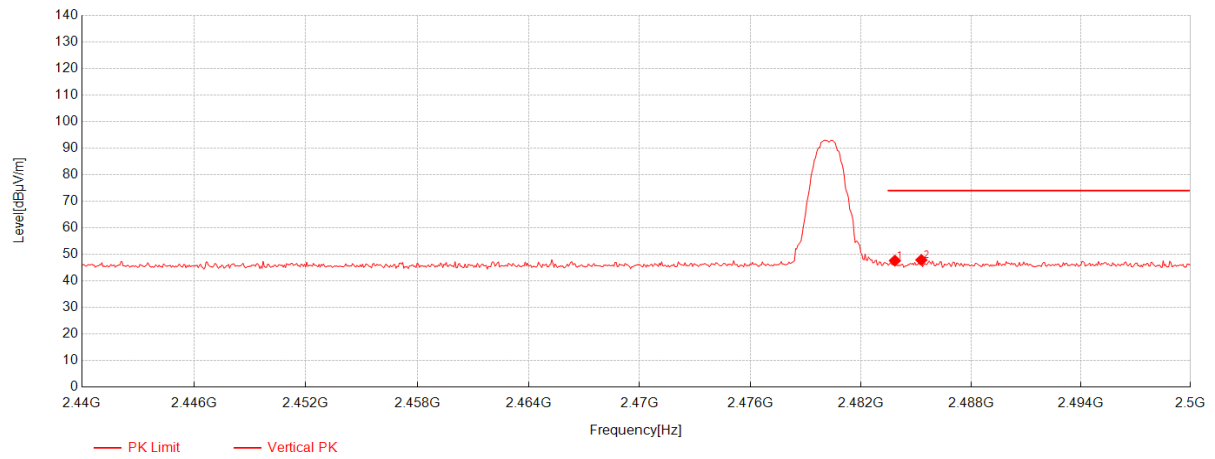
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2382.54	45.87	26.63	-26.16	46.34	74.00	27.66	Vertical
2	2389.82	45.69	26.70	-26.13	46.26	74.00	27.74	Vertical

Test mode: 00 ; Polarity: Horizontal ; Channel :2480MHz



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2483.5	48.32	27.17	-26.24	49.25	74.00	24.75	Horizontal
2	2485.72	47.27	27.14	-26.24	48.17	74.00	25.83	Horizontal

Test mode: 00 ; Polarity: Vertical ; Channel :2480MHz



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	2483.86	46.69	27.16	-26.24	47.61	74.00	26.39	Vertical
2	2485.3	46.96	27.15	-26.24	47.87	74.00	26.13	Vertical

7.3 Radiated Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.249 (a),(d)
Test Method: ANSI C63.10-2020+COR 1-2023 Section 6.4&6.5

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
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
960-1000	500	3

Note

1. The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

2. At frequencies below 1GHz, measurements may be performed at a distance different to specified in the regulations.

Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor+ Aux Factor (if applicable)

The aux factor needs to be added when measurements are performed at a distance other than the limit distance provided.

EX. Below 30MHz, Aux Factor = 40 dB/decade of distance, the aux factor is $40\log(3/300) = -80\text{dB}$ (for 3m test distance).

EX. Above 30MHz, Aux Factor = 20 dB/decade of distance, the aux factor is $20\log(10/3) = 10.46\text{dB}$ (for 10m test distance).

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

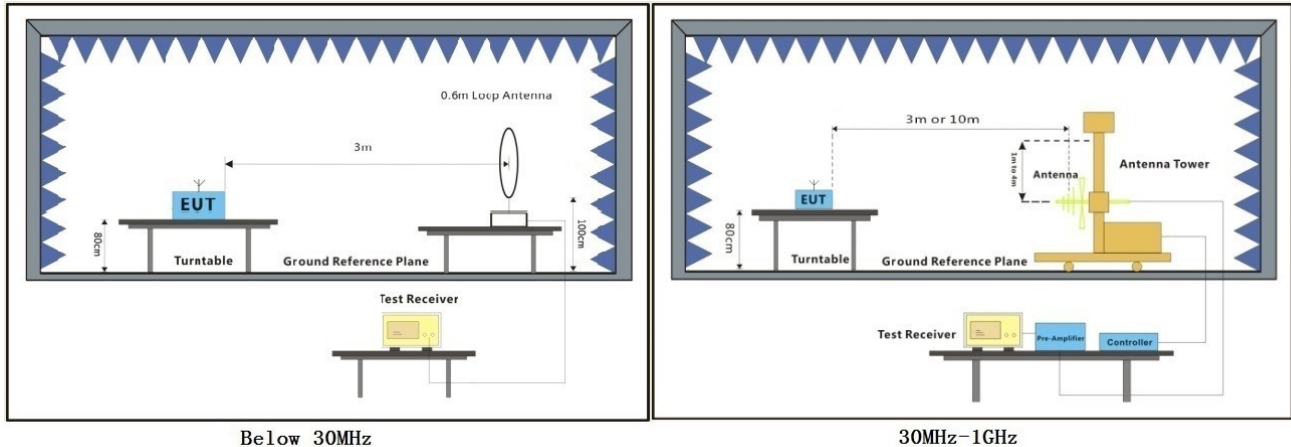
Humidity: 45.3 % RH

Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in transmitting with modulation mode.

7.3.3 Test Setup Diagram



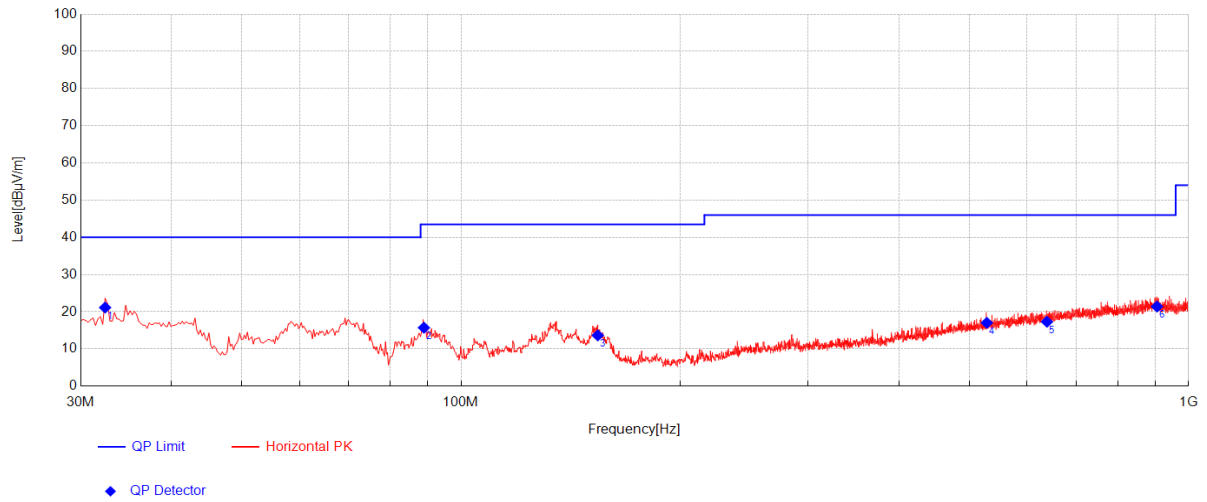
7.3.4 Measurement Procedure and Data

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8m above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3m or 10m away from the interference-receiving antenna, which was mounted on the variable-height antenna tower.
- The antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1m to 4m (for the test frequency of below 30MHz, the antenna was tuned to heights 1m) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

Remark:

- Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only below points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the worst-case test curve is displayed.

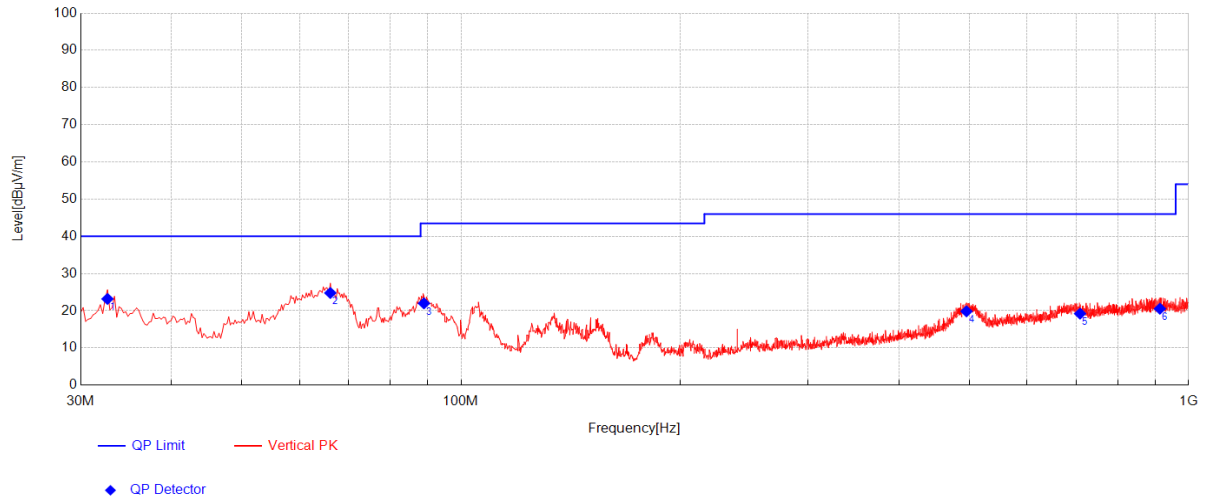
Test mode: 00; Polarity: Horizontal



Final Data List

NO.	Frequency [MHz]	AF [dB/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	32.425	17.60	-32.51	21.12	40.00	18.88	Horizontal
2	88.9275	10.78	-31.92	15.71	43.50	27.79	Horizontal
3	154.16	11.18	-31.45	13.65	43.50	29.85	Horizontal
4	528.095	19.28	-30.24	17.02	46.00	28.98	Horizontal
5	638.675	20.83	-29.88	17.31	46.00	28.69	Horizontal
6	904.94	23.10	-29.10	21.40	46.00	24.60	Horizontal

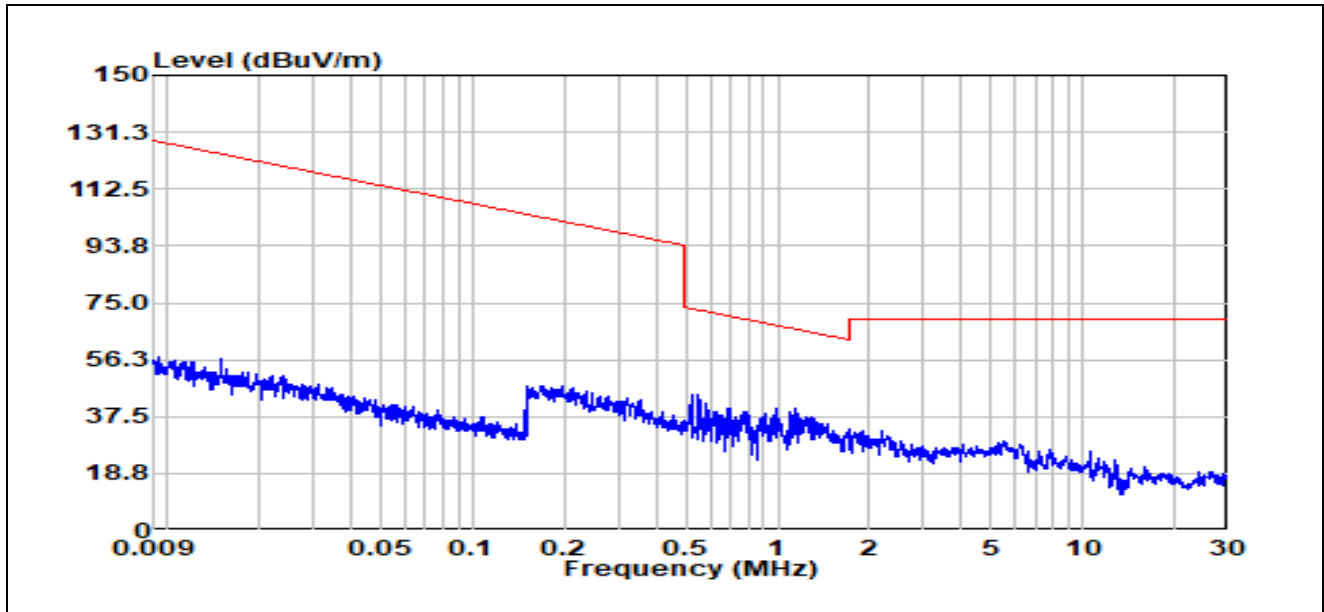
Test mode: 00; Polarity: Vertical



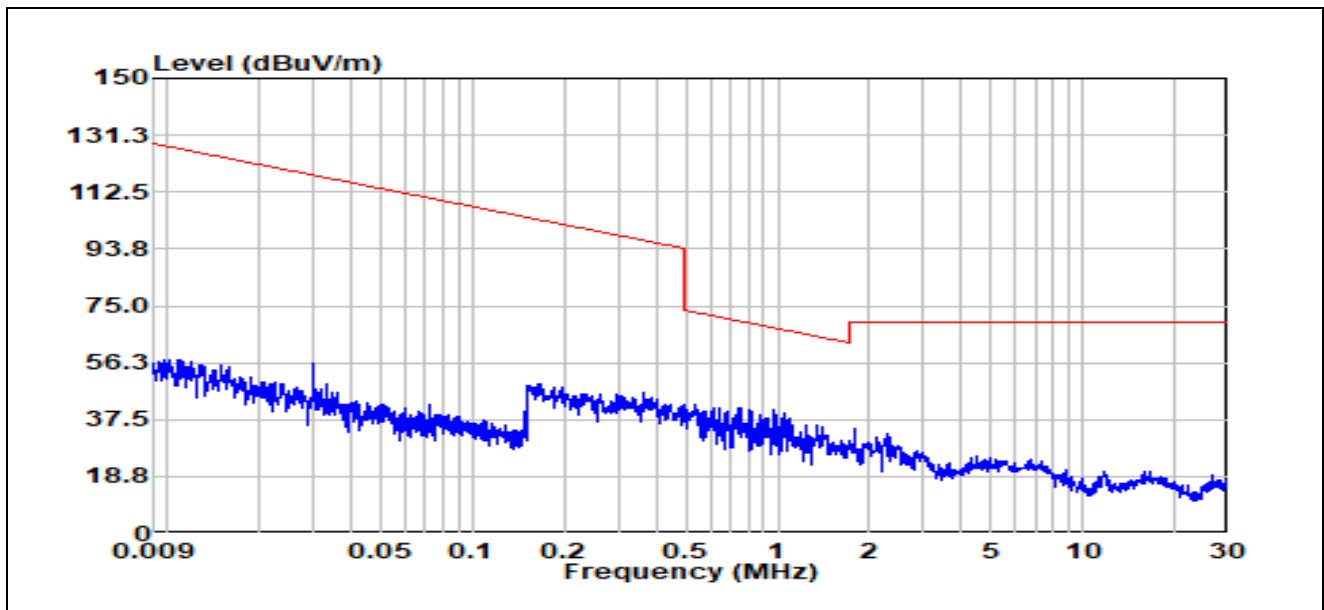
Final Data List

NO.	Frequency [MHz]	AF [dB/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	32.6675	17.43	-32.51	23.18	40.00	16.82	Vertical
2	66.1325	6.26	-32.11	24.78	40.00	15.22	Vertical
3	88.9275	10.78	-31.92	21.99	43.50	21.51	Vertical
4	495.115	18.41	-30.34	19.84	46.00	26.16	Vertical
5	709.2425	21.77	-29.37	19.22	46.00	26.78	Vertical
6	913.185	23.44	-29.07	20.54	46.00	25.46	Vertical

Test Mode: 00; Polarity: Horizontal



Test Mode: 00; Polarity: Vertical



7.4 Radiated Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.249 (a),(d)

Test Method: ANSI C63.10-2020+COR 1-2023 Section 6.6

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

Note:

At Above 18GHz, measurements may be performed at a distance shorter than that specified in the regulations

Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor+ Aux Factor (if applicable)

The aux factor needs to be added when measurements are performed at a distance other than the limit distance provided.

EX. Above 18GHz, Aux Factor = 20 dB/decade of distance, the aux factor is $20\log(1/3) = -9.54\text{dB}$ (for 1m test distance).

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

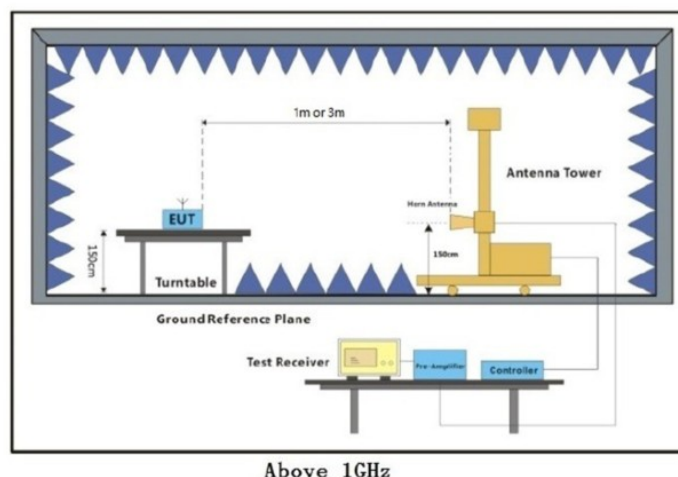
Humidity: 45.6 % RH

Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in transmitting with modulation mode.

7.4.3 Test Setup Diagram



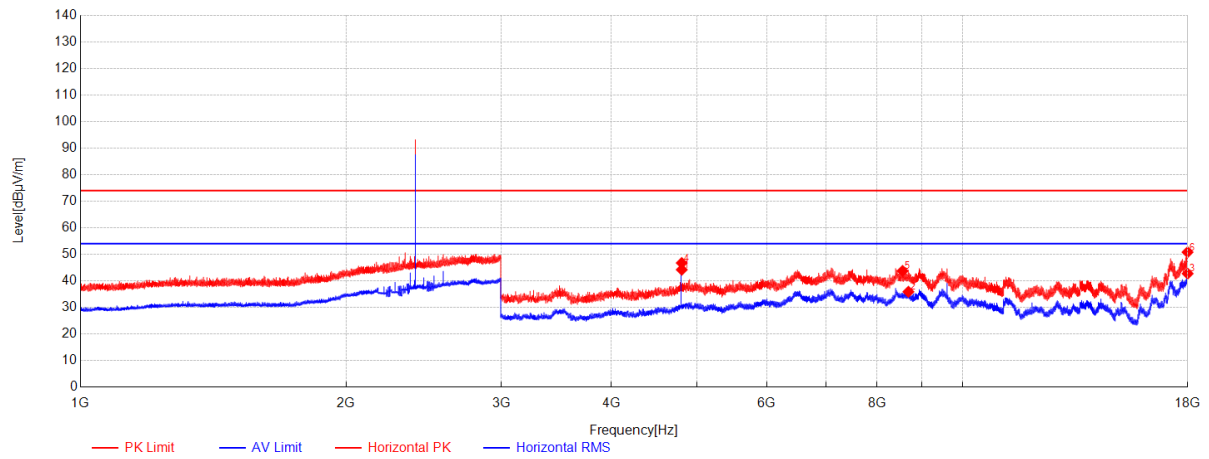
7.4.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5m above the ground at a 3m fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3m away from the interference-receiving antenna from 1GHz to 40GHz.
- b. The interference-receiving antenna was mounted on the variable-height antenna tower, with its boresight facing the EUT throughout the test.
- c. The antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1m to 4m and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- g. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- h. Repeat above procedures until all frequencies measured was complete.

Remark:

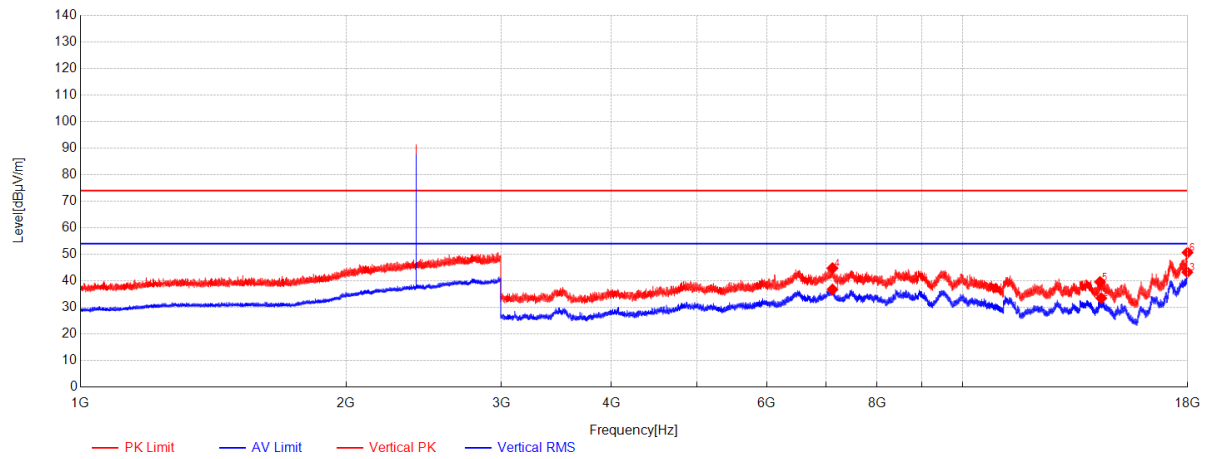
1. Scan from 1GHz to 10th harmonic of the highest frequency or 40 GHz, whichever is lower.
2. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
3. For the frequency above 18GHz, testing had been executed under all test modes, only the worst-case test curve is displayed in the report.
4. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst-case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.

TX_Low Channel_Horizontal



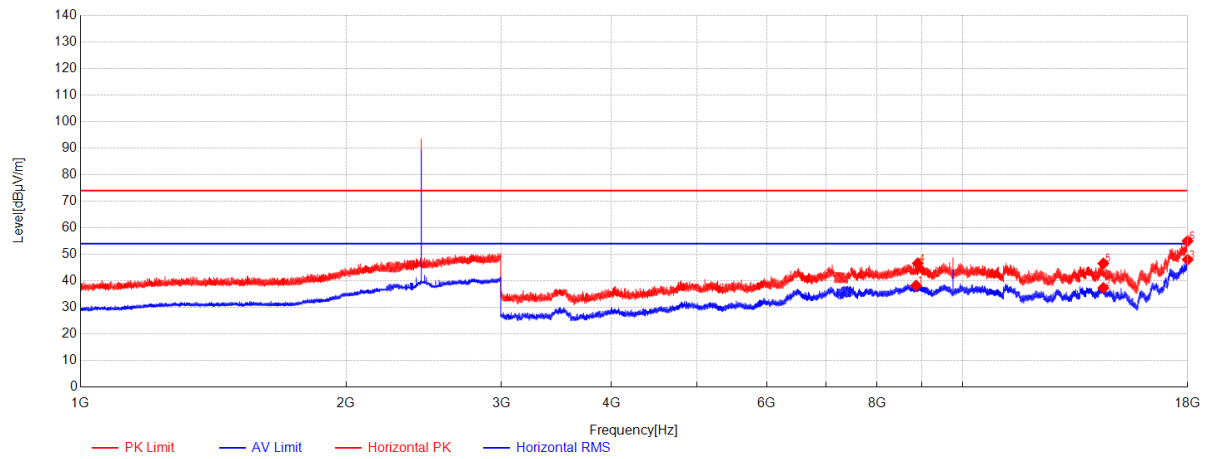
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	4805	62.75	31.49	-50.05	44.19	54.00	9.81	Horizontal
2	8682.5	44.28	37.47	-45.86	35.89	54.00	18.11	Horizontal
3	17998	40.71	43.20	-41.19	42.72	54.00	11.28	Horizontal
4	4804.5	65.28	31.49	-50.04	46.73	74.00	27.27	Horizontal
5	8552	53.35	37.11	-46.71	43.75	74.00	30.25	Horizontal
6	17995.5	48.83	43.20	-41.24	50.79	74.00	23.21	Horizontal

TX_Low Channel_Vertical



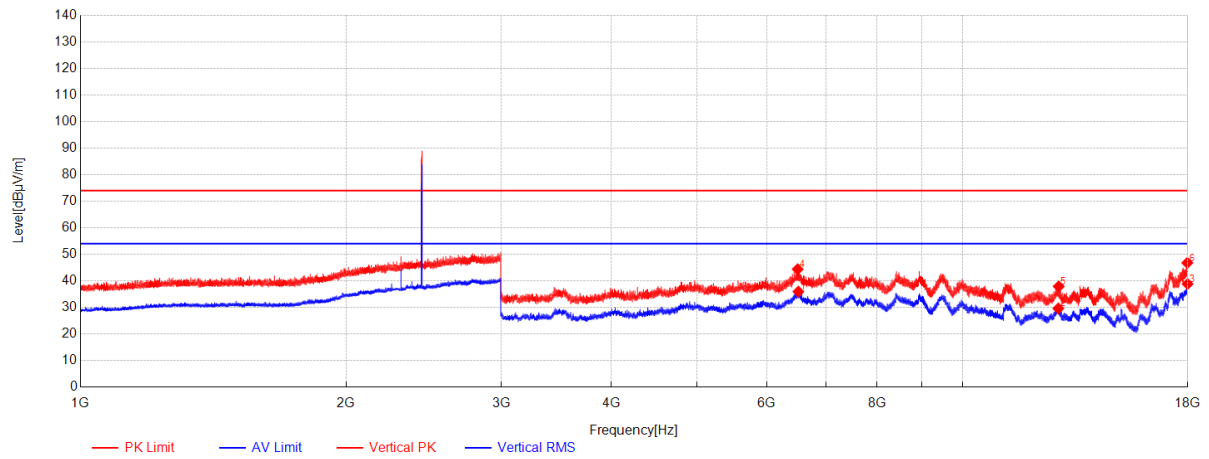
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7122.5	47.83	35.90	-46.96	36.77	54.00	17.23	Vertical
2	14365.5	35.40	40.27	-42.19	33.48	54.00	20.52	Vertical
3	17981.5	41.54	43.20	-41.48	43.26	54.00	10.74	Vertical
4	7121	55.80	35.90	-46.93	44.77	74.00	29.23	Vertical
5	14319	41.94	40.24	-42.59	39.59	74.00	34.41	Vertical
6	17993	48.71	43.20	-41.28	50.63	74.00	23.37	Vertical

TX_Middle Channel_Horizontal



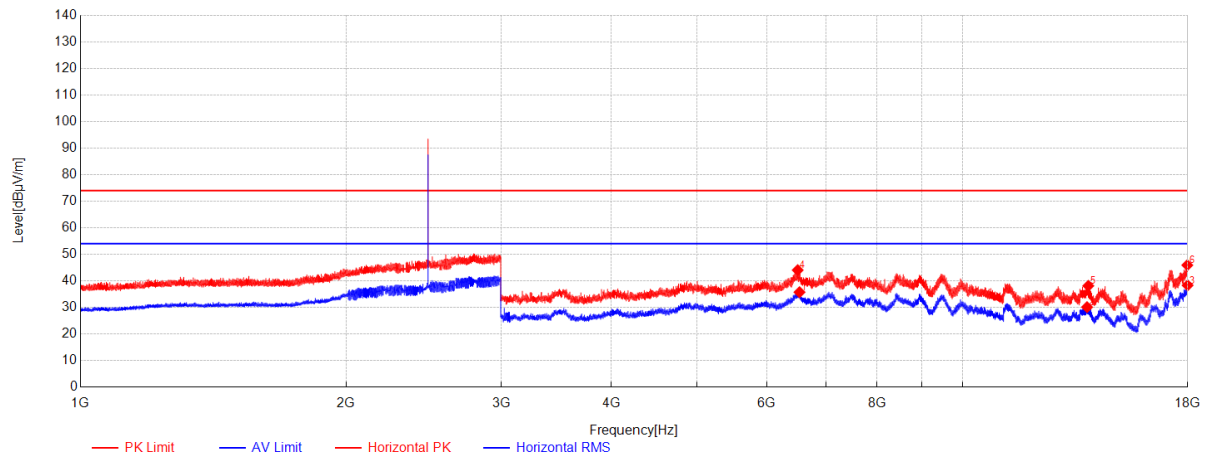
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8859	46.77	37.70	-46.25	38.22	54.00	15.78	Horizontal
2	14441.5	39.46	40.28	-42.42	37.32	54.00	16.68	Horizontal
3	17999	45.97	43.20	-41.18	47.99	54.00	6.01	Horizontal
4	8897.5	55.09	37.70	-46.20	46.59	74.00	27.41	Horizontal
5	14441	48.67	40.28	-42.41	46.54	74.00	27.46	Horizontal
6	17995	53.06	43.20	-41.25	55.01	74.00	18.99	Horizontal

TX_Middle Channel_Vertical



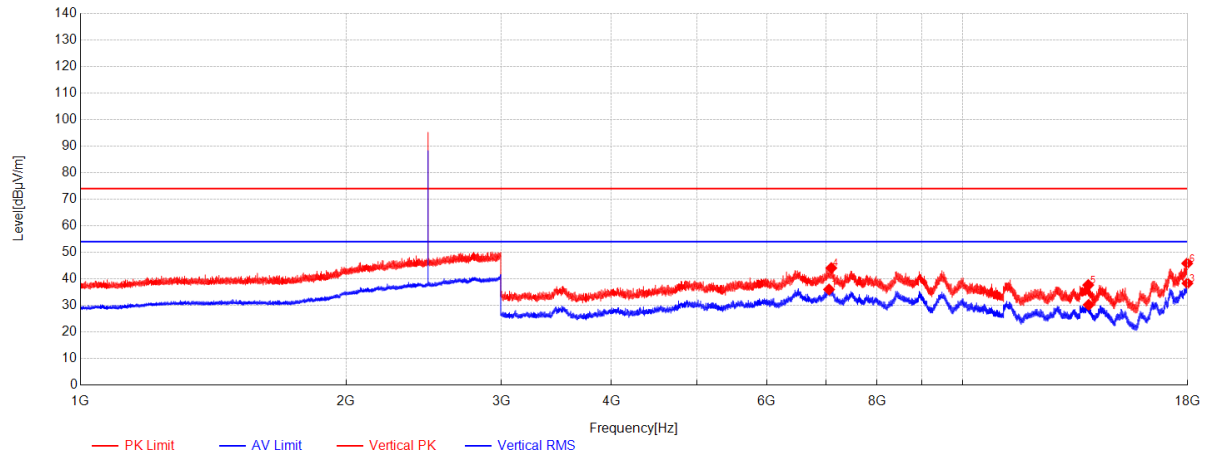
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	6515	48.15	34.35	-46.56	35.94	54.00	18.06	Vertical
2	12841.5	33.04	39.80	-43.22	29.62	54.00	24.38	Vertical
3	17996	36.85	43.20	-41.23	38.82	54.00	15.18	Vertical
4	6503	56.38	34.23	-46.25	44.36	74.00	29.64	Vertical
5	12853.5	41.25	39.91	-43.27	37.89	74.00	36.11	Vertical
6	17981	45.05	43.20	-41.49	46.76	74.00	27.24	Vertical

TX_High Channel_Horizontal



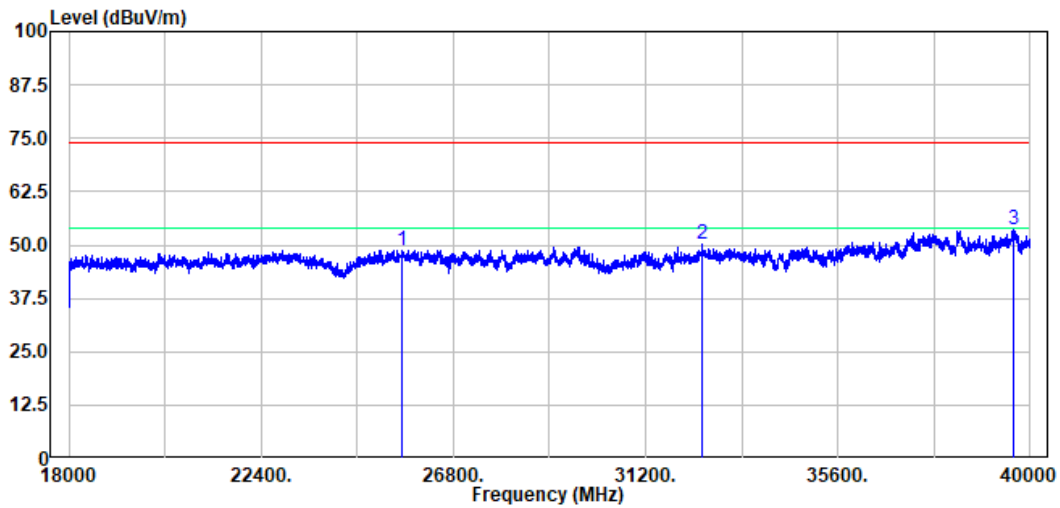
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	6534.5	48.27	34.55	-47.08	35.74	54.00	18.26	Horizontal
2	13841.5	33.56	40.38	-43.83	30.11	54.00	23.89	Horizontal
3	17995	36.38	43.20	-41.25	38.33	54.00	15.67	Horizontal
4	6503.5	56.06	34.24	-46.26	44.04	74.00	29.96	Horizontal
5	13886.5	40.84	40.47	-43.19	38.12	74.00	35.88	Horizontal
6	17983	44.15	43.20	-41.45	45.90	74.00	28.10	Horizontal

TX_High Channel_Vertical



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7058	47.68	35.48	-47.16	36.00	54.00	18.00	Vertical
2	13899.5	32.72	40.50	-43.01	30.21	54.00	23.79	Vertical
3	17988.5	36.49	43.20	-41.36	38.33	54.00	15.67	Vertical
4	7100	54.67	35.90	-46.48	44.09	74.00	29.91	Vertical
5	13885.5	40.42	40.47	-43.21	37.68	74.00	36.32	Vertical
6	17976	44.19	43.20	-41.57	45.82	74.00	28.18	Vertical

TX_Low Channel_Horizontal

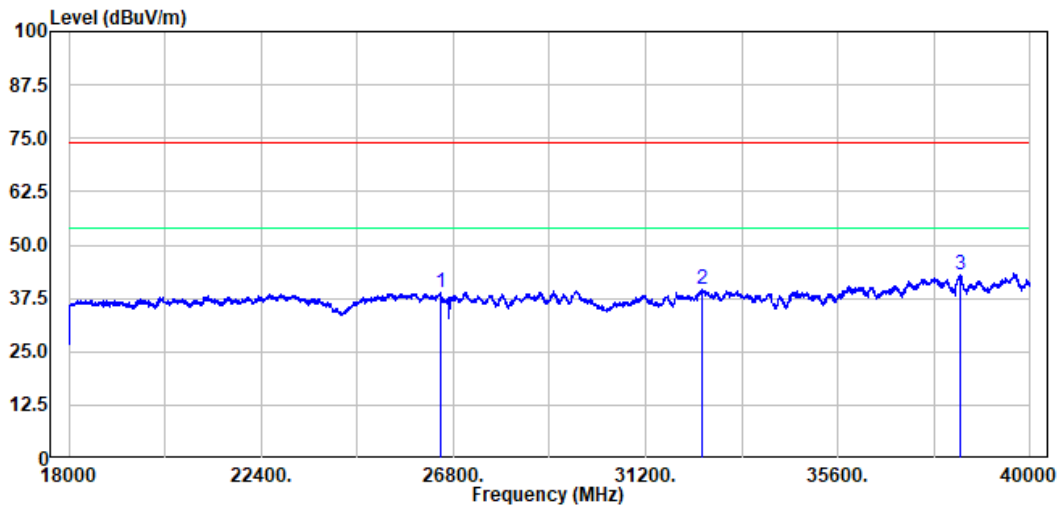


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
1	25635.53	53.14	39.71	10.87	54.87	48.85	74.00	-25.15	Peak
2	32496.50	53.53	40.66	11.87	56.00	50.06	74.00	-23.94	Peak
3	39634.73	50.55	43.67	14.86	55.63	53.45	74.00	-20.55	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

TX_Low Channel_Horizontal

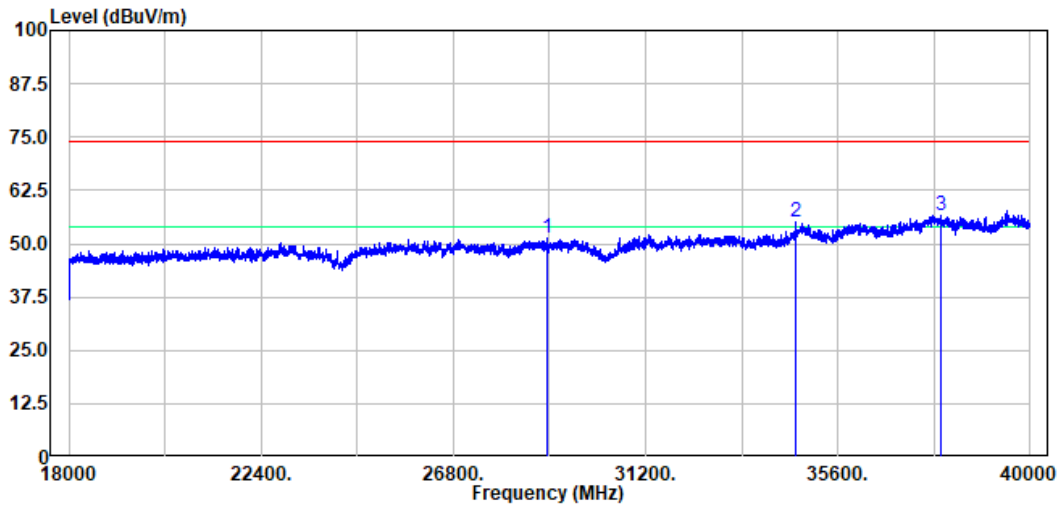


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
1	26493.70	43.28	39.82	10.37	54.51	38.96	54.00	-15.04	Average
2	32483.30	42.90	40.66	11.89	56.01	39.44	54.00	-14.56	Average
3	38393.68	40.85	43.11	14.32	55.10	43.18	54.00	-10.82	Average

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

TX_Low Channel_Vertical

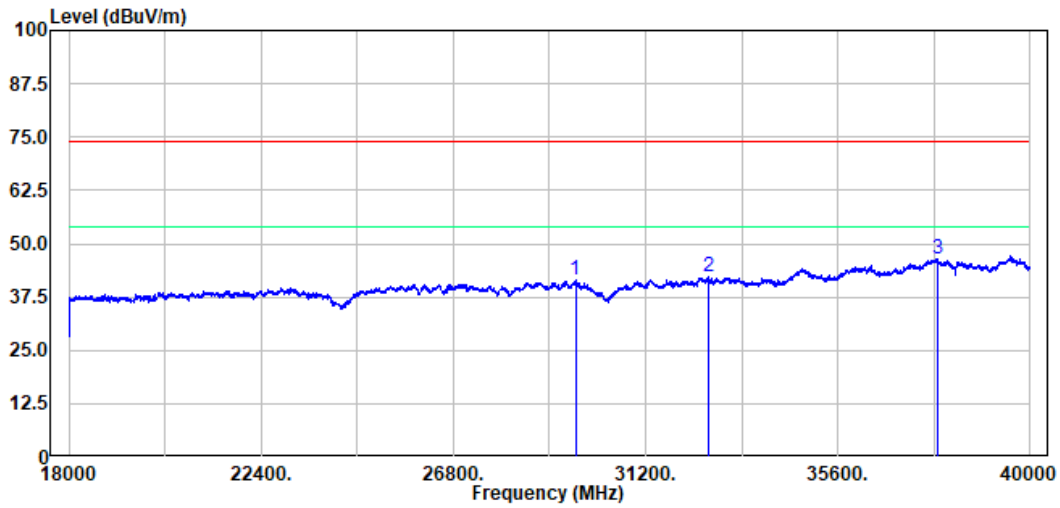


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
1	28958.19	56.49	39.97	11.31	56.34	51.43	74.00	-22.57	Peak
2	34644.13	56.42	41.33	13.50	56.19	55.06	74.00	-18.94	Peak
3	37957.99	53.71	42.89	13.93	54.07	56.46	74.00	-17.54	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

TX_Low Channel_Vertical



Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamplifier Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
1	29591.92	45.37	40.10	11.47	55.61	41.33	54.00	-12.67	Average
2	32624.13	45.62	40.68	12.07	56.25	42.12	54.00	-11.88	Average
3	37887.58	43.63	42.85	13.94	54.18	46.24	54.00	-7.76	Average

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamplifier Factor

7.5 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215

Test Method: ANSI C63.10-2020+COR 1-2023 Section 6.9

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

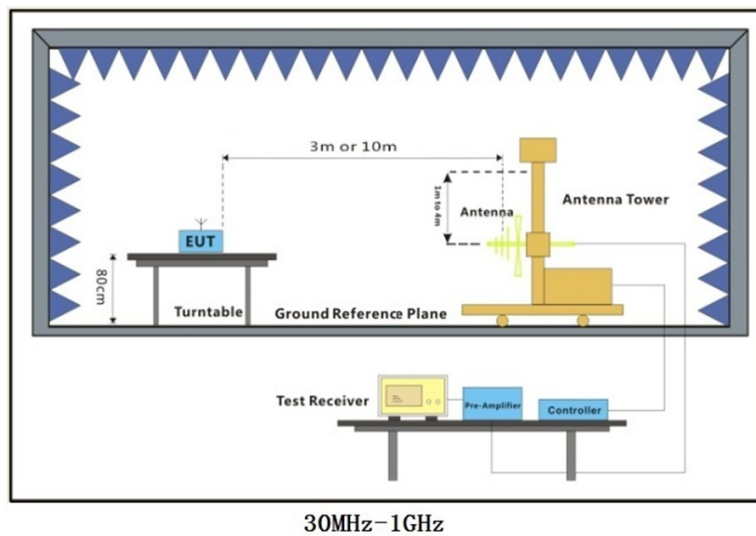
Humidity: 45.6 % RH

Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in transmitting with modulation mode.

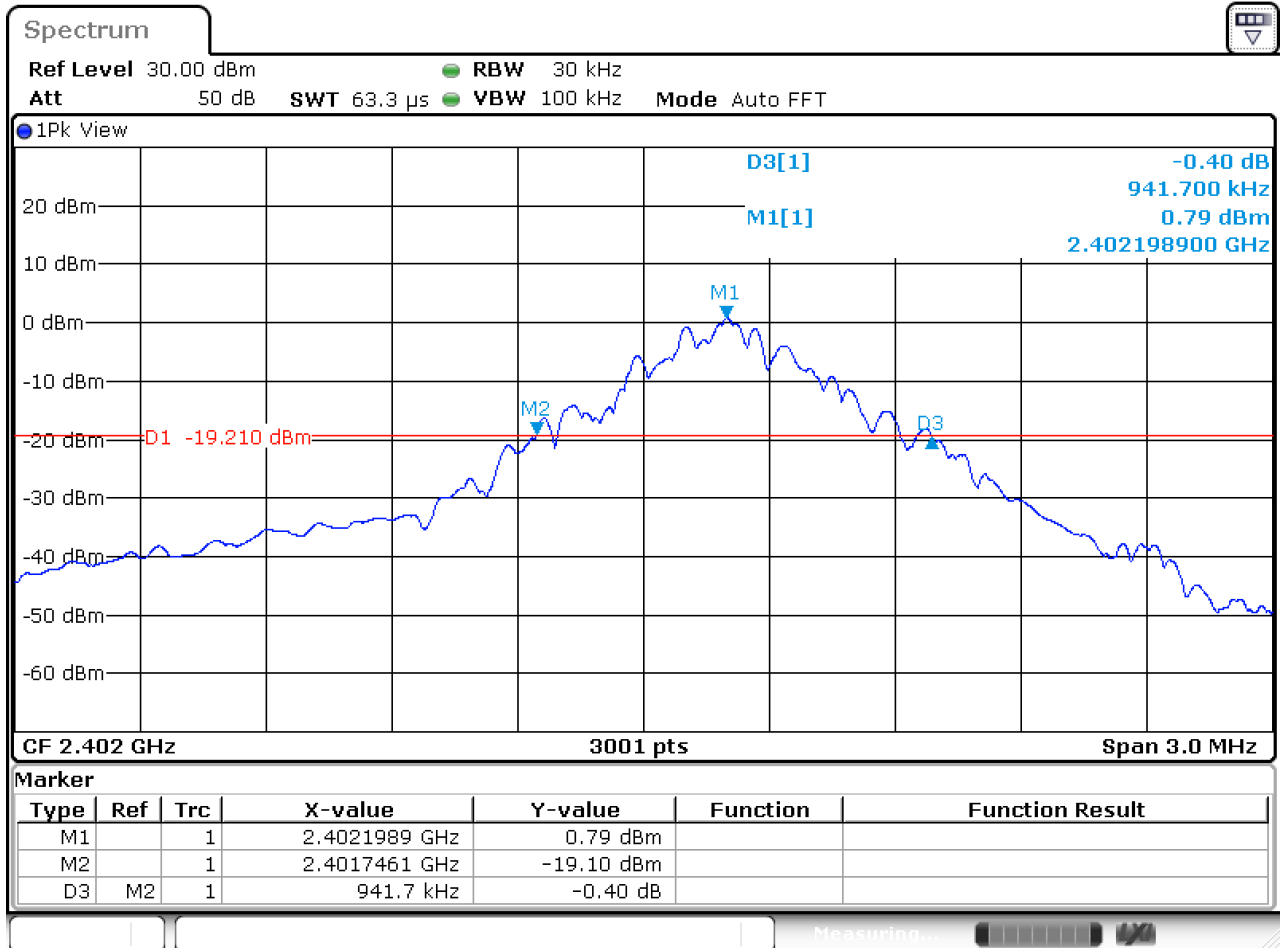
7.5.3 Test Setup Diagram



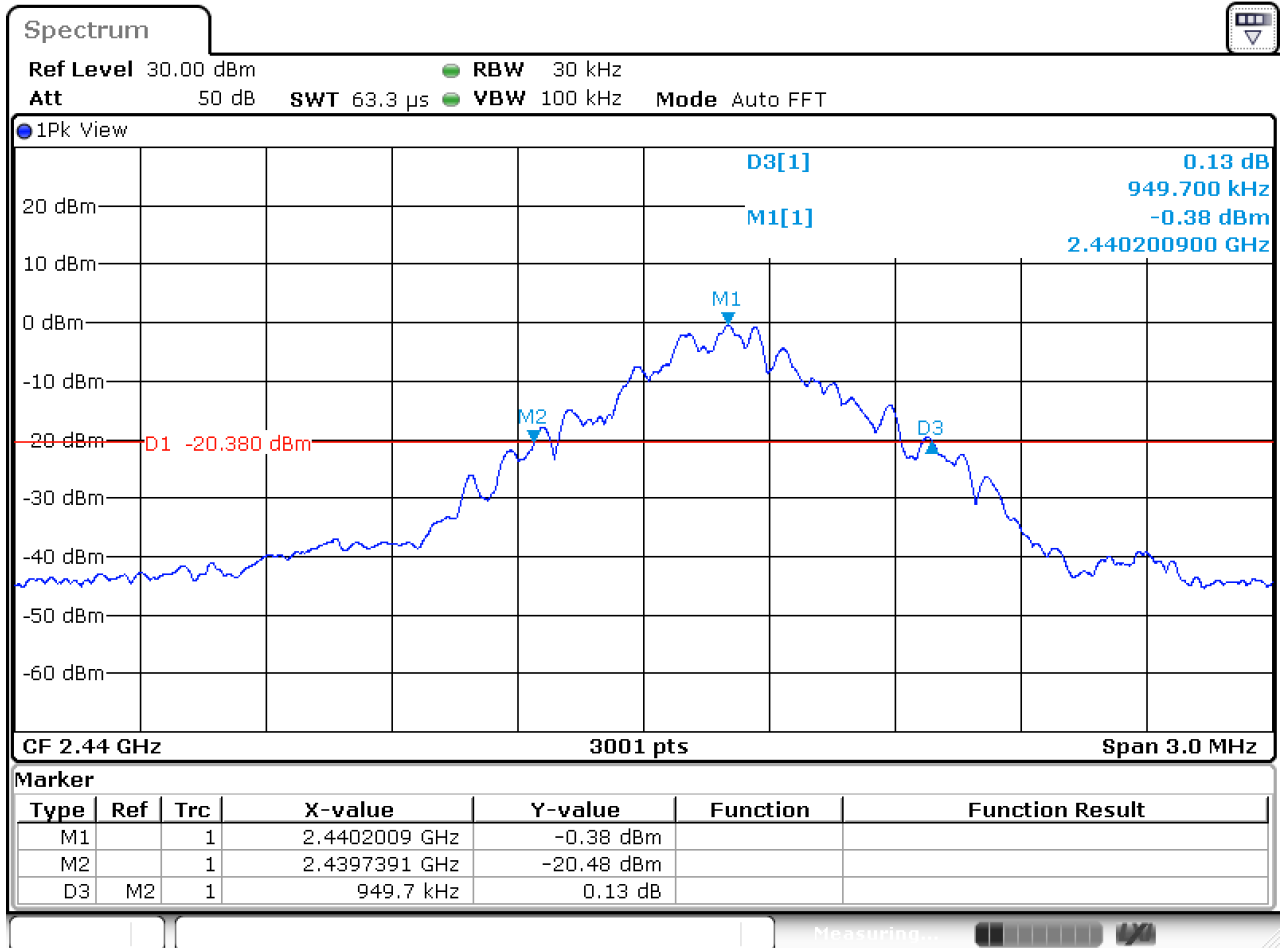
7.5.4 Measurement Procedure and Data

Frequency (MHz)	Bandwidth (MHz)	Result
2402	0.941	PASS
2440	0.949	PASS
2480	0.934	PASS

Test Mode: 2402



Test Mode: 2440



Test Mode: 2480



8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2606001431HS

9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for KSCR2606001431HS

- End of the Report -