



REPORT No.: SZ26070489W03

TEST REPORT

APPLICANT : Shenzhen Sonoff Technologies Co.,Ltd.

PRODUCT NAME : Matter Over WiFi Human Presence Sensor

MODEL NAME : SNWF-06P24

BRAND NAME : SONOFF

FCC ID : 2APN5-SNWF06P24

STANDARD(S) : 47 CFR Part 15 Subpart C

RECEIPT DATE : 2026-08-05

TEST DATE : 2026-08-10 to 2026-08-13

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Change History		
Version	Date	Reason for change
1.0	2026-09-04	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Shenzhen Sonoff Technologies Co.,Ltd.
Applicant Address:	3F & 6F, Bldg A, No. 663, Bulong Rd, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen Sonoff Technologies Co.,Ltd.
Manufacturer Address:	3F & 6F, Bldg A, No. 663, Bulong Rd, Shenzhen, Guangdong, China

1.2. Equipment Under Test (EUT) Description

Product Name:	Matter Over WiFi Human Presence Sensor
Sample No.:	2#, 4#, 5#
Hardware Version:	V1.0
Software Version:	V0.1.0
Operating Frequency:	24.125GHz
Channel Number:	1
Antenna Type:	Ceramic Antenna
Antenna Gain:	9.00dBi

Note 1: The EUT description presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



1.3. The Channel Number and Frequency

Channel	Frequency (GHz)
1	24.125

1.4. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart C for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result	Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	/
2	15.215 2.1049	Occupied Bandwidth	Aug. 11, 2026	Lin Haoyang	PASS	/
3	15.207	Conducted Emission	Aug. 13, 2026	Wang Yapeng	PASS	/
4	15.249	Field Strength and Restricted Frequency Bands	Aug. 11, 2026	Li Hanbin	PASS	/
5	15.209, 15.249	Radiated Emission and Field Strength of Harmonic	Aug. 11, 2026	Li Hanbin	PASS	/

Note 1: The tests were performed according to the method of measurements prescribed in ANSI C63.10-2020.

Note 2: Any additions, deviation, or exclusions from the method shall be noted in the "Remark".

1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106



2. 47 CFR Part 15C Requirements

2.1. Antenna Requirement

2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

2.1.2. Result: Compliant

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

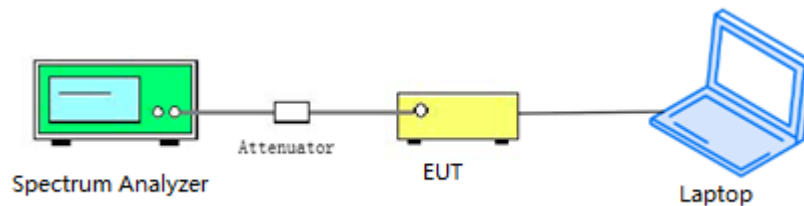
2.2. Occupied Bandwidth

2.2.1. Requirement

Refer to FCC 15.215

2.2.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) in the range of 1% to 5% of the measured bandwidth and video bandwidth (VBW) shall be approximately three times RBW.

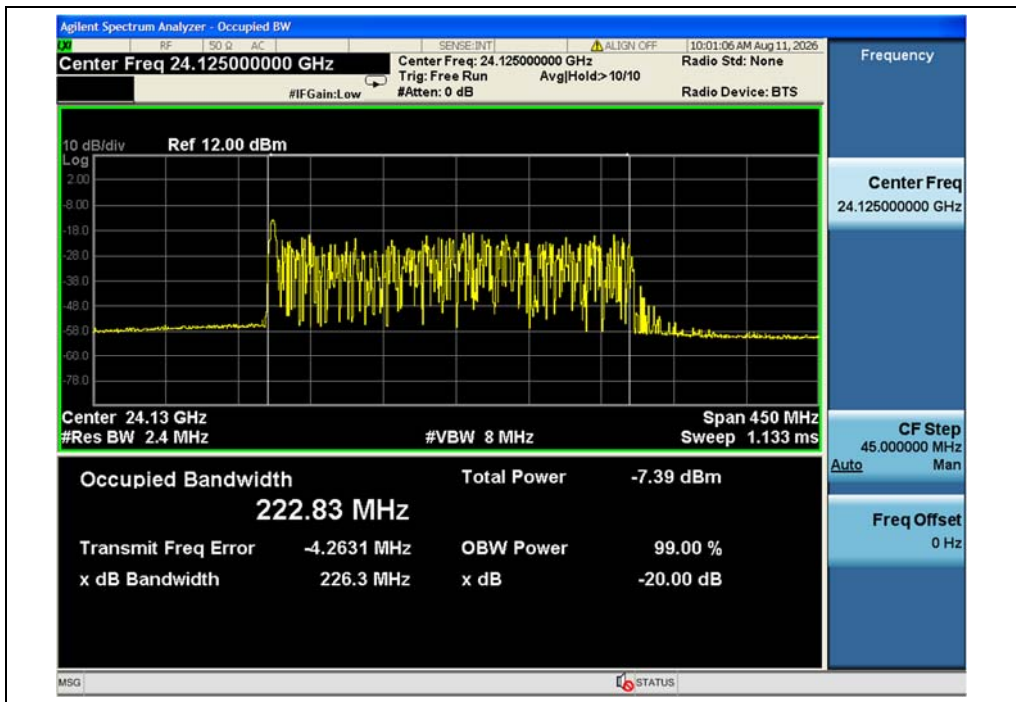


2.2.3. Test Result

A.Test Verdict:

Channel	Frequency (GHz)	20 dB Bandwidth (MHz)	Result
1	24.125	226.3	PASS

B.Test Plot:



(24.125GHz)

2.3. Conducted Emission

2.3.1. Requirement

According to FCC section 15.207, 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 within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

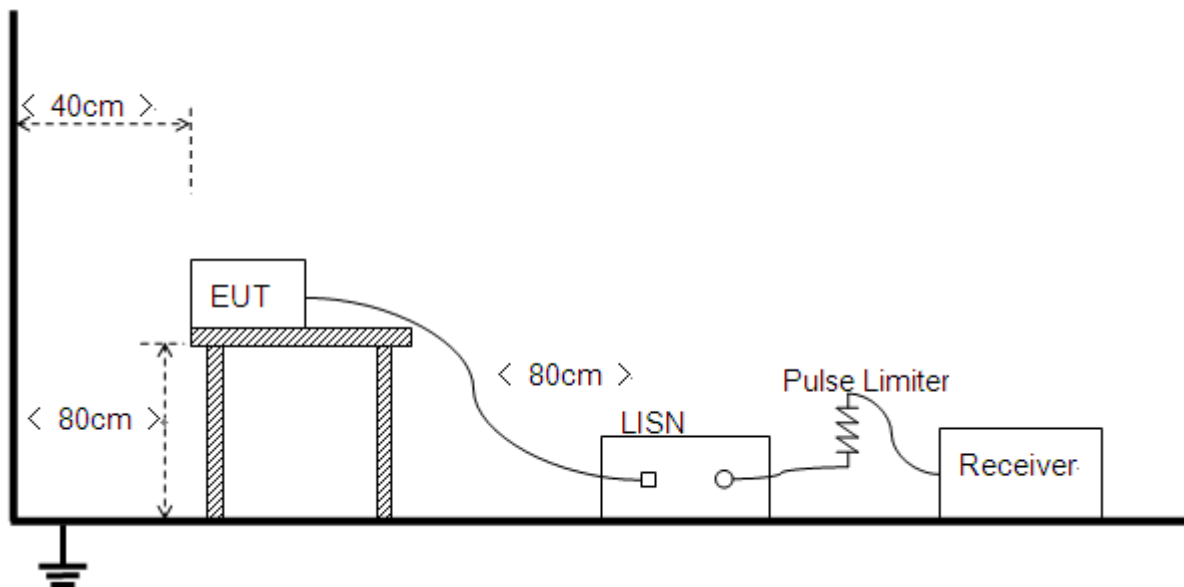
Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

Note:

- 1) The lower limit shall apply at the band edges.
- 2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

2.3.2. Test Description

Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10.



2.3.3. Test Procedure

Use the following receiver settings:

Span = wide enough to fully capture the emission being measured

RBW = 9 kHz

VBW = 30 kHz

Sweep = auto

Detector function = Quasi peak and Average

Trace = max hold

2.3.4. Test Result

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the Average and Quasi peak limits, and that have narrow margins from the Average and Quasi peak limits will be re-measured with Average and Quasi peak detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A.Test Setup:

Test Mode: EUT+Adapter+Data Cable+24GHz TX

Test voltage: AC 120V/60Hz

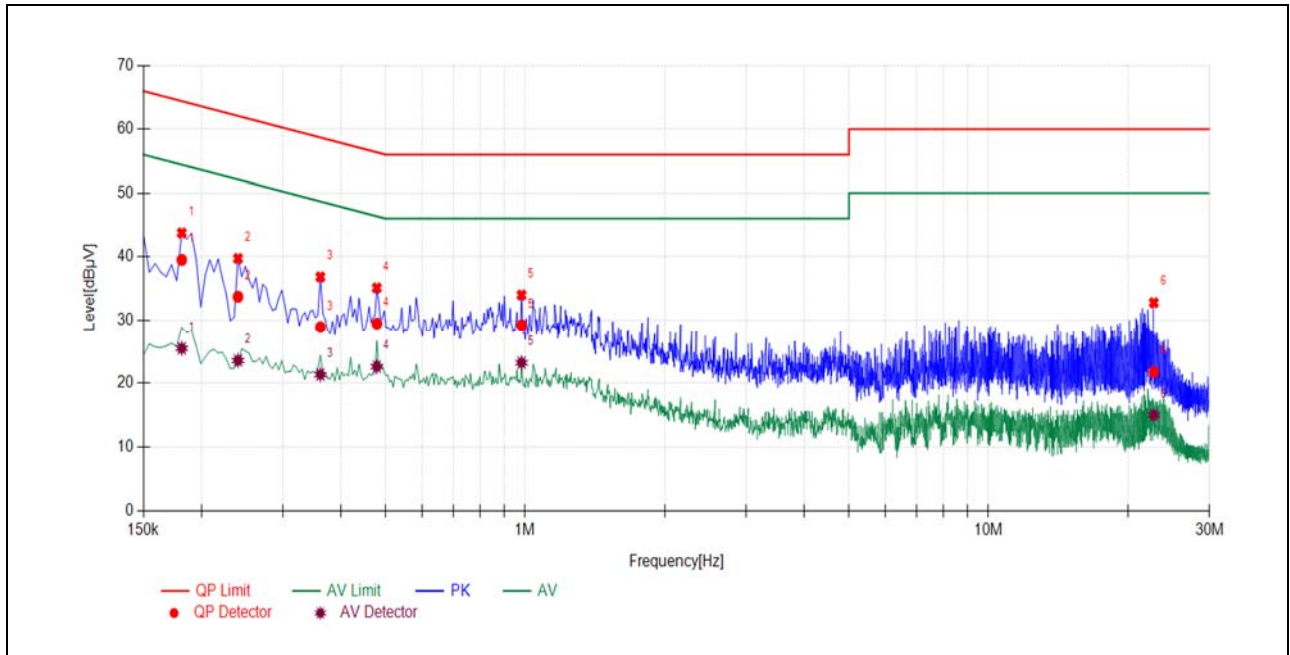
The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V]} = U_R \text{ [dB}\mu\text{V]} + L_{\text{Cable loss}} \text{ [dB]} + A_{\text{Factor}} \text{ [dB]}$$

U_R : Receiver Reading

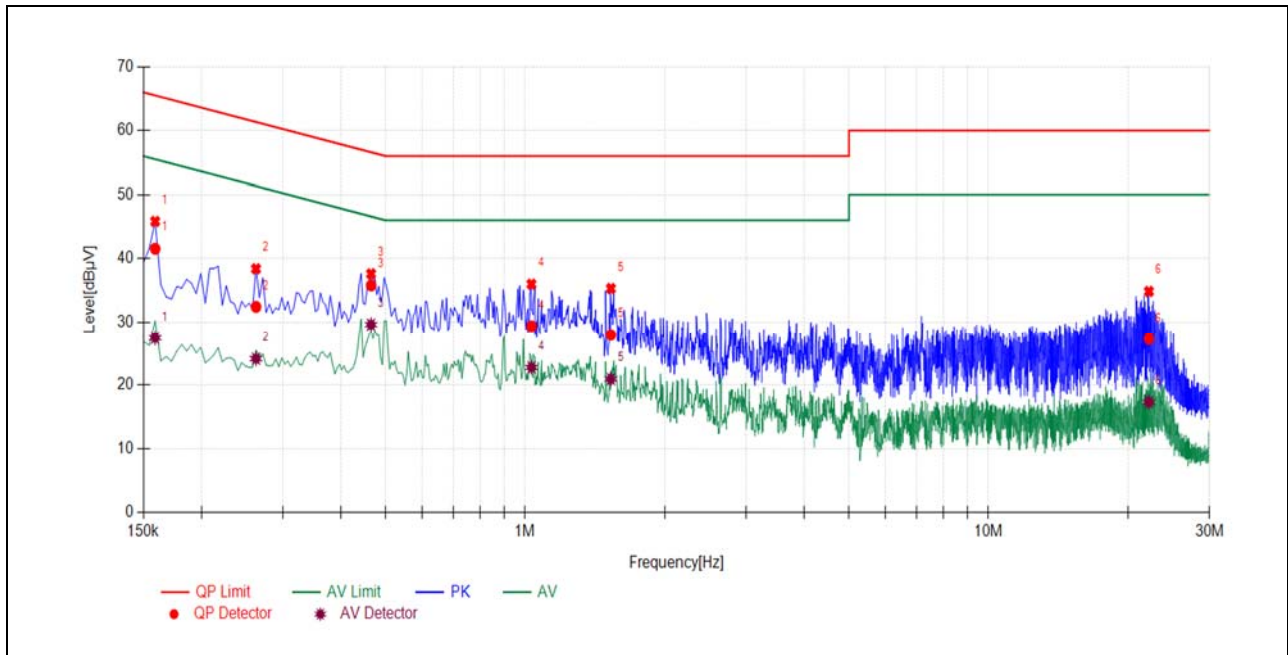
A_{Factor} : Voltage division factor of LISN

B.Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1815	39.51	25.45	64.42	54.42	Line	PASS
2	0.2400	33.70	23.54	62.10	52.10		PASS
3	0.3615	28.87	21.31	58.69	48.69		PASS
4	0.4785	29.45	22.57	56.36	46.36		PASS
5	0.9825	29.19	23.18	56.00	46.00		PASS
6	22.7466	21.73	14.96	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1590	41.55	27.44	65.52	55.52	Neutral	PASS
2	0.2625	32.42	24.13	61.35	51.35		PASS
3	0.4650	35.80	29.60	56.60	46.60		PASS
4	1.0321	29.35	22.75	56.00	46.00		PASS
5	1.5315	27.94	20.92	56.00	46.00		PASS
6	22.1985	27.28	17.29	60.00	50.00		PASS

2.4. Field Strength of Fundamental and Restricted Frequency Bands

2.4.1. Requirement

According to FCC section 15.249(a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

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

The field strength of emissions appearing within the restricted frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.

Devices operated in the 24.0-24.25 GHz band under § 15.249 are exempt from complying with the restricted frequency bands requirements of this section for the 48.0-48.5 GHz and 72.0-72.75 GHz bands only, and shall not exceed the limits specified in § 15.249(a).

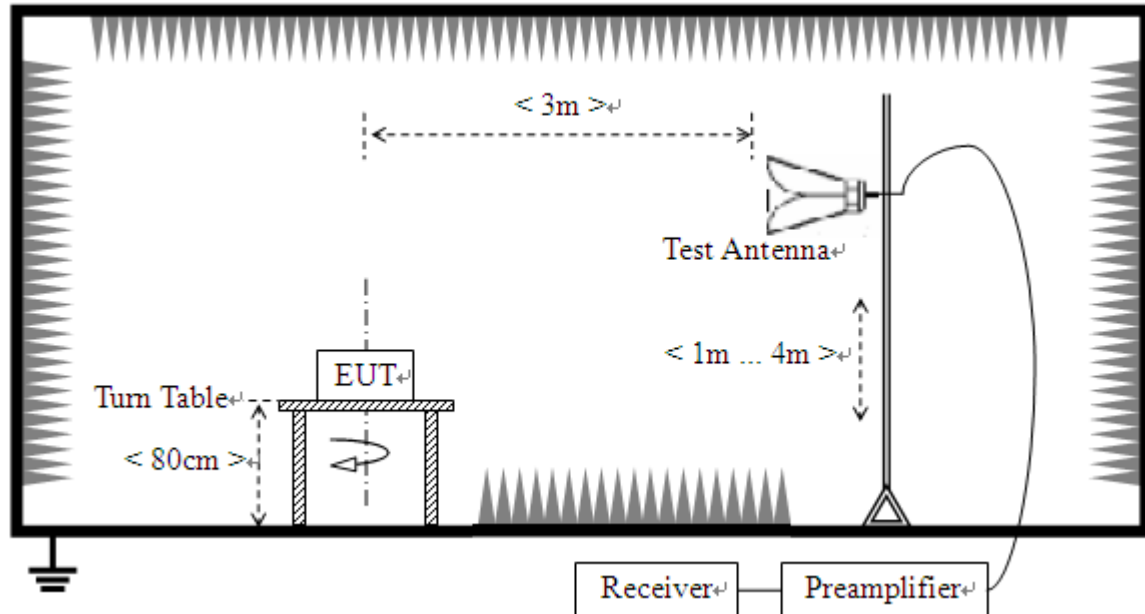
Frequency	Field strength of fundamental (microvolts/meter)	Field strength of harmonics (dB μ V/m)
23.6 - 24.0 GHz	500	54

The peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20dB under any condition of modulation.

Limitation expressed in μ V/m is calculated by $20\log$ Emission Level(μ V/m). Limitation expressed in mV/m is calculated by $20\log$ Emission Level(mV/m) + 60dB.

2.4.2. Test Description

Test Setup:



The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

2.4.3. Test Procedure

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold



2.4.4. Test Result

Note: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition(Y) was recorded in this test report.

Final Emission level(dB μ V/m) = Prescan peak level(dB μ V/m) + FMCW Desensitization factor (dB)

Prescan Emission level(dB μ V/m) = U_R [dB μ V] + A_T [dB] + A_{Factor} [dB/m]; A_T = $L_{Cable\ loss}$ [dB] - G_{preamp} [dB]

$L_{Cable\ loss}$ [dB] = L_{Mixer} [dB] + L_{IF} [dB]

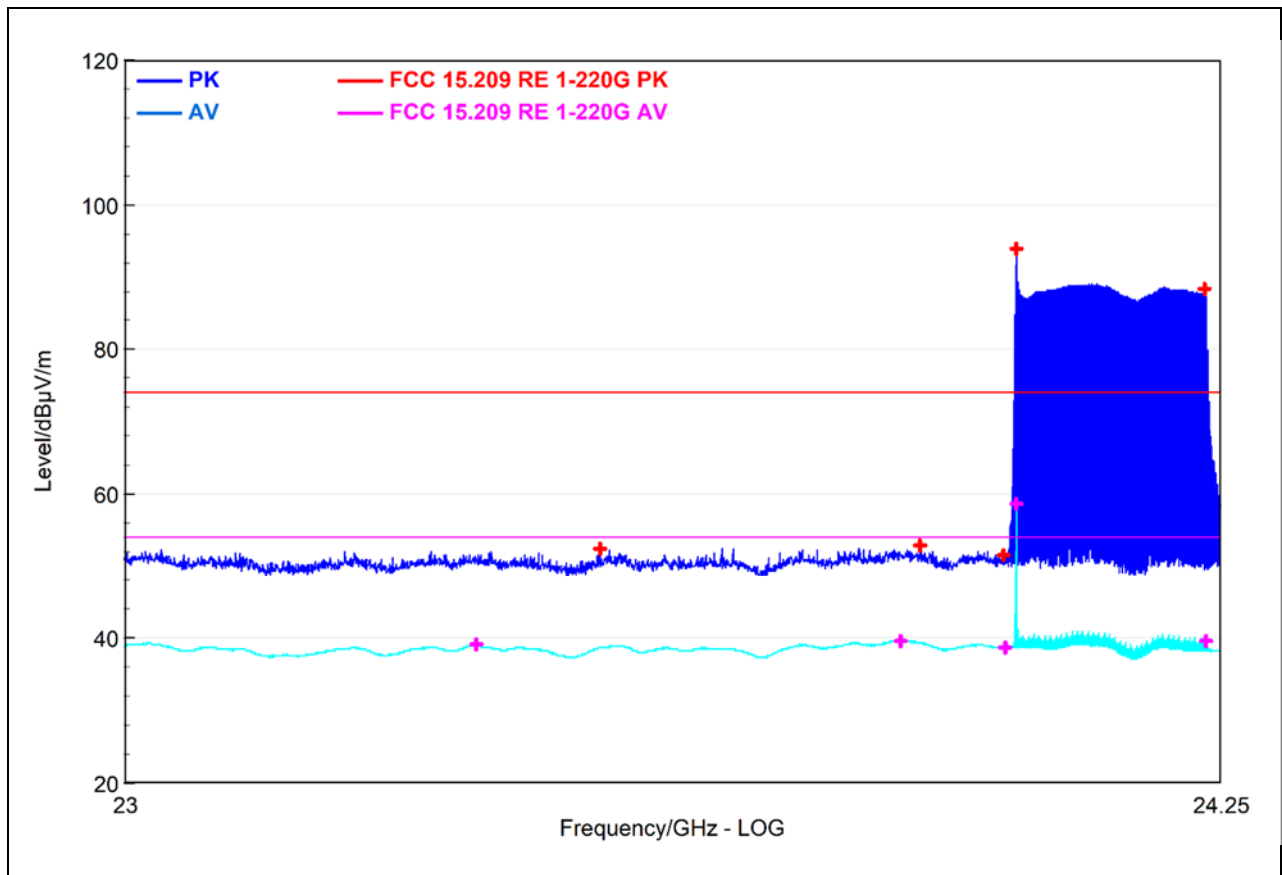
A_T : Total correction Factor except Antenna

U_R : Receiver Reading

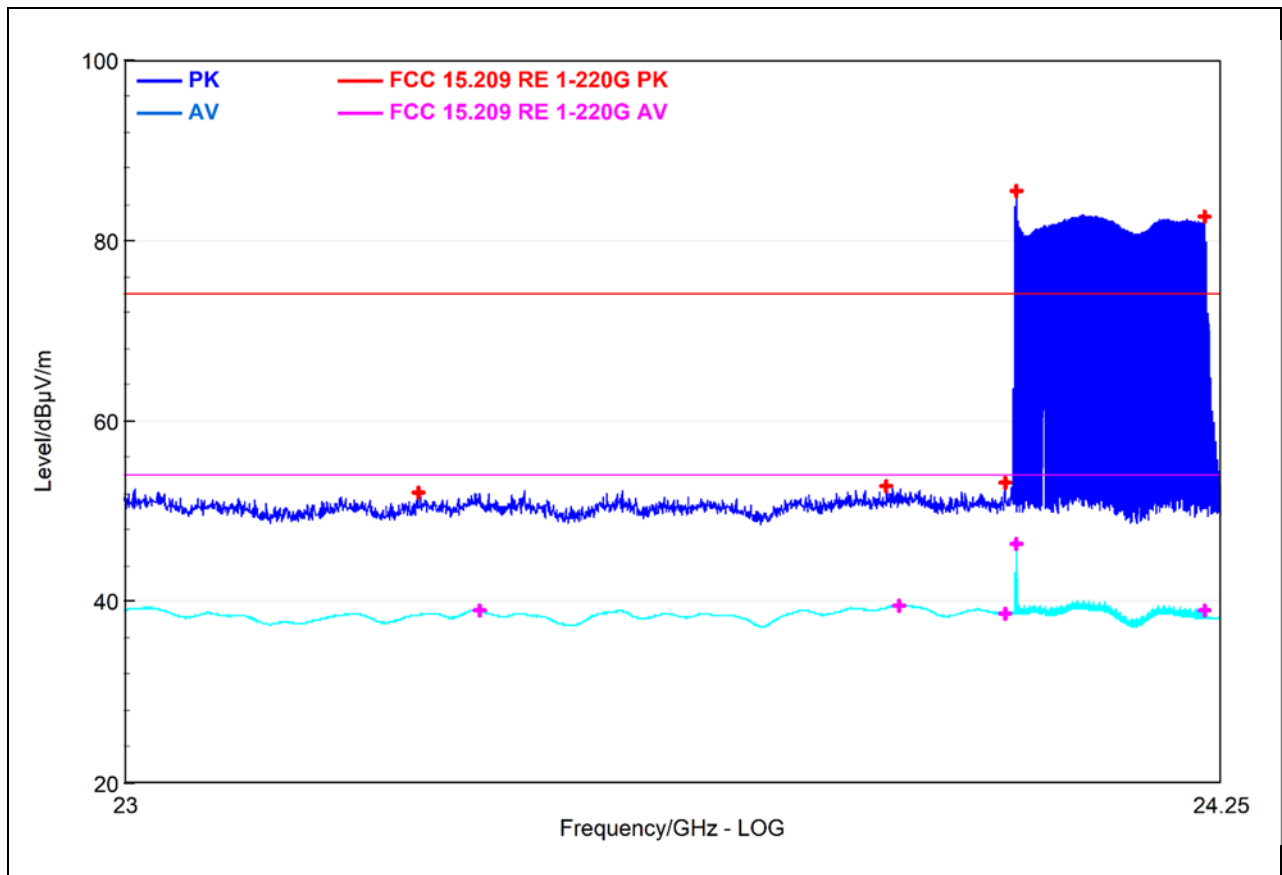
G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

Freq. (GHz)	Prescan peak level (dB μ V/m)	Factor (dB/m)	FMCW Desensitization factor (dB)	Final Emission level (dB μ V/m)	Limit (dB μ V/m)	Detector	Margin (dB)	Antenna Polar.
23.534017	52.4	0	-6.0526	46.3474	74	PK	27.6526	Horizontal
23.901076	52.85	0	-6.0526	46.7974	74	PK	27.2026	Horizontal
23.996748	51.42	0	-6.0526	45.3674	74	PK	28.6326	Horizontal
24.011756	93.96	0	-6.0526	87.9074	128	PK	40.0926	Horizontal
24.231241	88.26	0	-6.0526	82.2074	128	PK	45.7926	Horizontal
23.393947	38.94	0	-	38.94	54	AV	15.06	Horizontal
23.878564	39.47	0	-	39.47	54	AV	14.53	Horizontal
23.999875	38.62	0	-	38.62	54	AV	15.38	Horizontal
24.012381	58.46	0	-	58.46	108	AV	49.54	Horizontal
24.233117	39.53	0	-	39.53	108	AV	68.47	Horizontal
23.328289	52.04	0	-6.0526	45.9874	74	PK	28.0126	Vertical
23.862306	52.77	0	-6.0526	46.7174	74	PK	27.2826	Vertical
23.998624	53.09	0	-6.0526	47.0374	74	PK	26.9626	Vertical
24.012381	85.42	0	-6.0526	79.3674	128	PK	48.6326	Vertical
24.231866	82.54	0	-6.0526	76.4874	128	PK	51.5126	Vertical
23.397699	38.92	0	-	38.92	54	AV	15.08	Vertical
23.876063	39.4	0	-	39.4	54	AV	14.6	Vertical
23.999875	38.56	0	-	38.56	54	AV	15.44	Vertical
24.013007	46.33	0	-	46.33	108	AV	61.67	Vertical
24.231866	38.79	0	-	38.79	108	AV	69.21	Vertical



(Test Antenna Horizontal)



(Test Antenna Vertical)

2.5. Radiated Emission and Field Strength of Harmonic

2.5.1. Requirement

According to section 15.249(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

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

According to section 15.249(d), Emission Radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in Section 15.209:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)	Field Strength Limitation at 3m Measurement Distance	
			($\mu\text{V/m}$)	(dBuV/m)
0.009 - 0.490	2400/F(kHz)	300	10000* 2400/F(KHz)	20log 2400/F(KHz) + 80
0.490 - 1.705	24000/F(kHz)	30	100* 2400/F(KHz)	20log 2400/F(KHz) + 40
1.705 - 30.0	30	30	100*30	20log 30 + 40
30 - 88	100	3	100	20log 100
88 - 216	150	3	150	20log 150
216 - 960	200	3	200	20log 200
Above 960	500	3	500	20log 500

According to section 15.249(e), for frequencies above 1000MHz, the above field strength limits are based on average limits. The peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20dB under any condition of modulation.

Note:

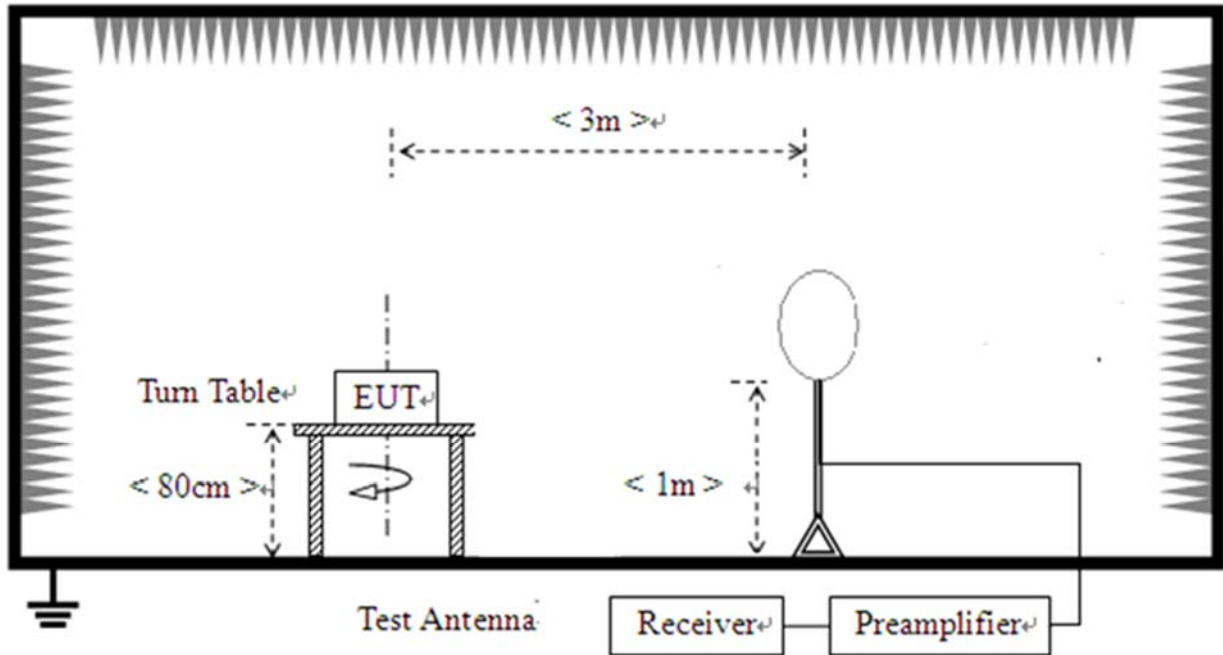
- 1) The tighter limit shall apply at the boundary between two frequency range.
- 2) Limitation expressed in dBuV/m is calculated by $20\log \text{Emission Level}(\mu\text{V/m})$.
- 3) If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula of $L_{d1} = L_{d2} * (d_2/d_1)^2$.

Example: F.S Limit at 30m distance is 30uV/m, then F.S Limitation at 3m distance is adjusted as $L_{d1} = L_1 = 30\mu\text{V/m} * (10)^2 = 100 * 30\mu\text{V/m}$

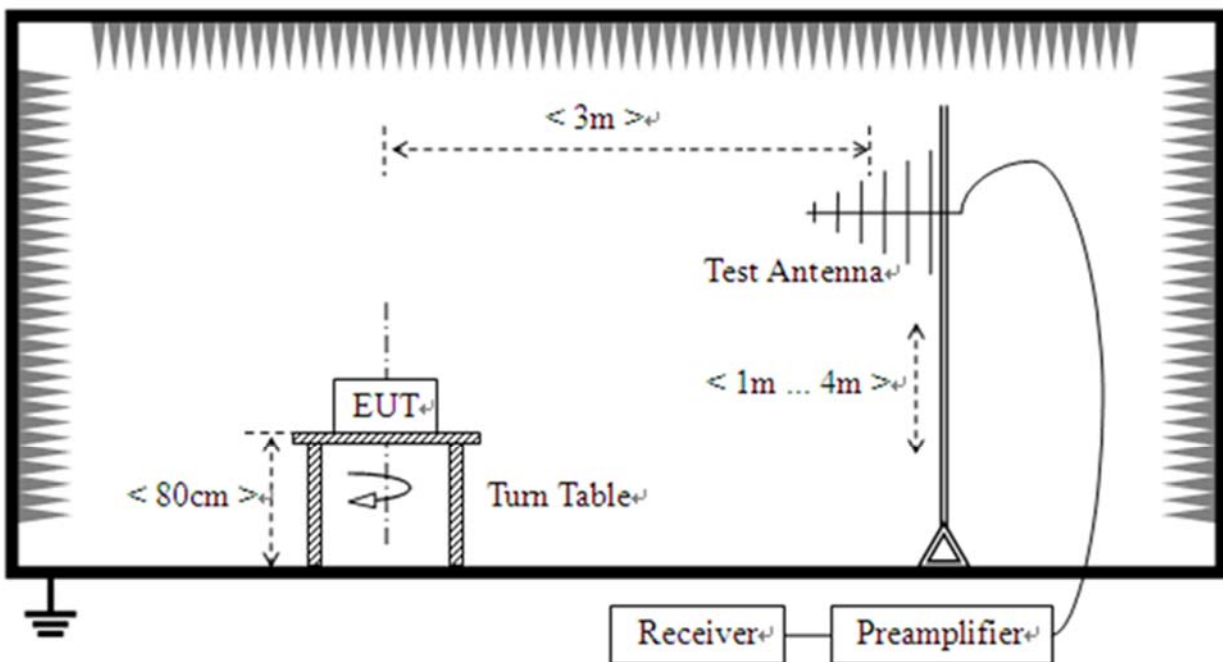
2.5.2. Test Description

Test Setup:

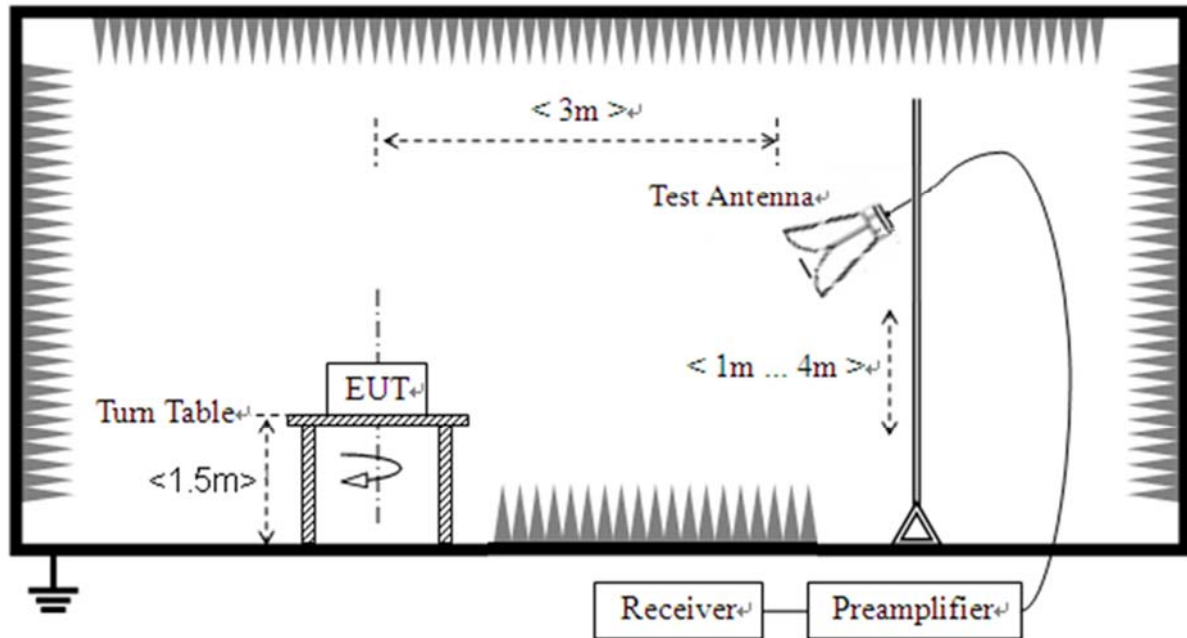
- 1) For radiated emissions from 9kHz to 30MHz



- 2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz



The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.



2.5.3. Test Result

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

$$E [\text{dB}\mu\text{V/m}] = U_R [\text{dB}\mu\text{V}] + A_T [\text{dB}] + A_{\text{Factor}} [\text{dB/m}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$$

$$L_{\text{Cable loss}} [\text{dB}] = L_{\text{Mixer}} [\text{dB}] + L_{\text{IF}} [\text{dB}]$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

When testing above 40GHz:

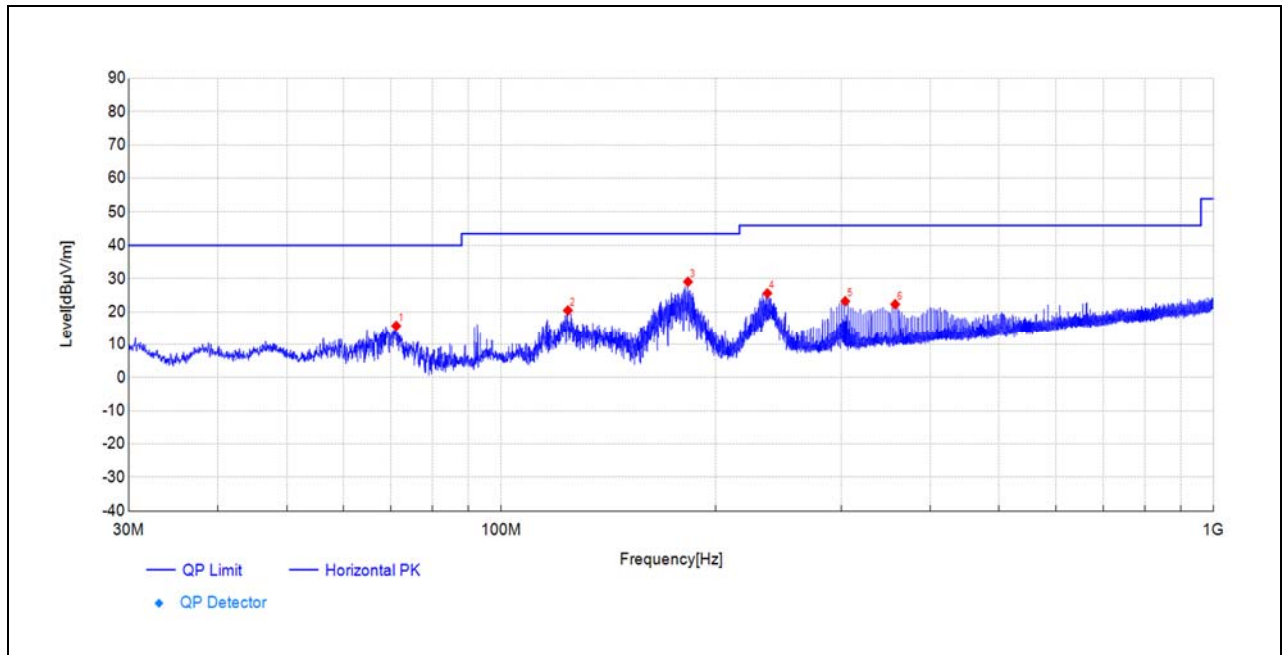
$L_{\text{mixer}} [\text{dB}]$: Conversion Loss of Mixer.

$L_{\text{IF}} [\text{dB}]$: Cable loss of the RF cable that connects the IF output of the mixer to the IF input of the spectrum.

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

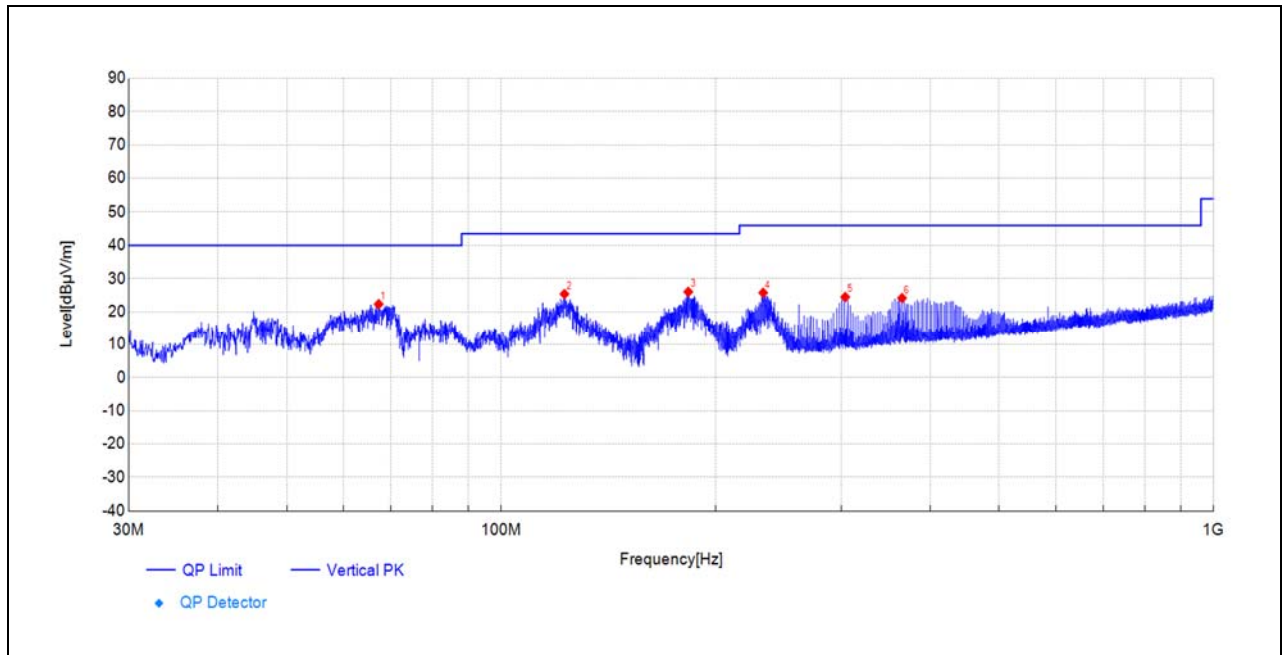
Note 1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note 2: The low frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.



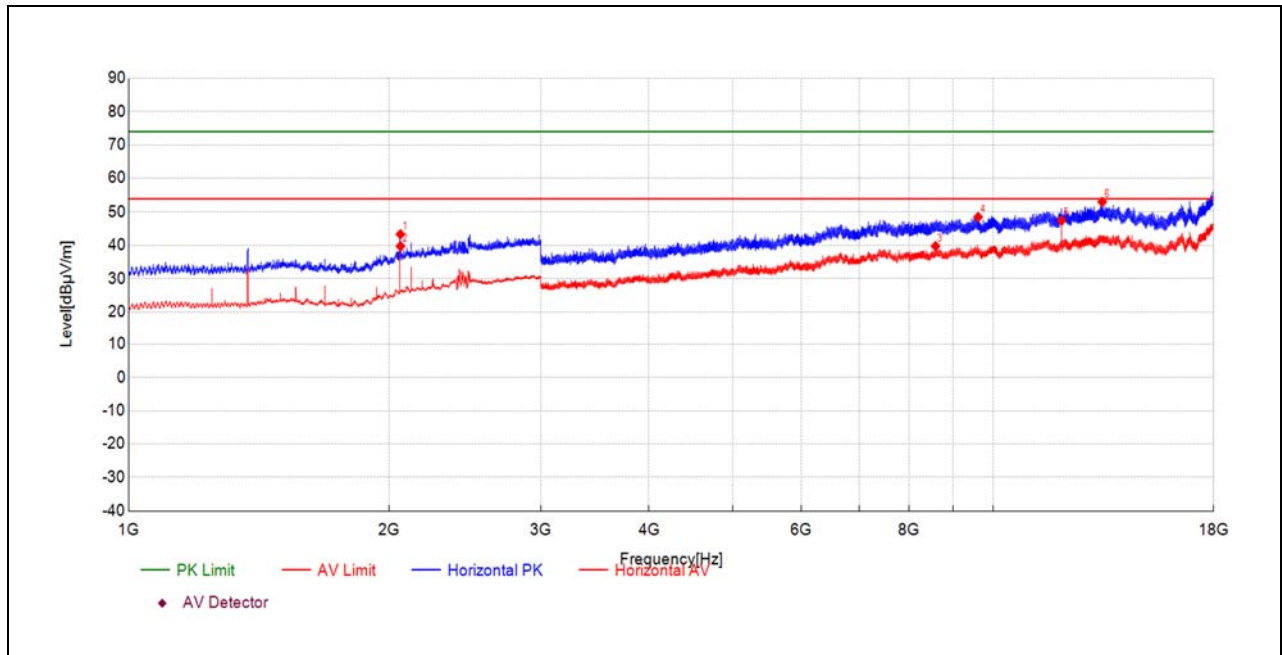
(30MHz – 1GHz, Test Antenna Horizontal)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
71.23	50.4	15.72	-34.720	40.00	24.28	150	272	PK	PASS
124.05	53.2	20.41	-32.830	43.50	23.09	150	206	PK	PASS
182.88	60.3	29.05	-31.270	43.50	14.45	150	110	PK	PASS
236.38	54.0	25.58	-28.450	46.00	20.42	150	325	PK	PASS
303.99	50.1	23.18	-26.870	46.00	22.82	150	110	PK	PASS
357.29	47.7	22.28	-25.370	46.00	23.72	150	325	PK	PASS



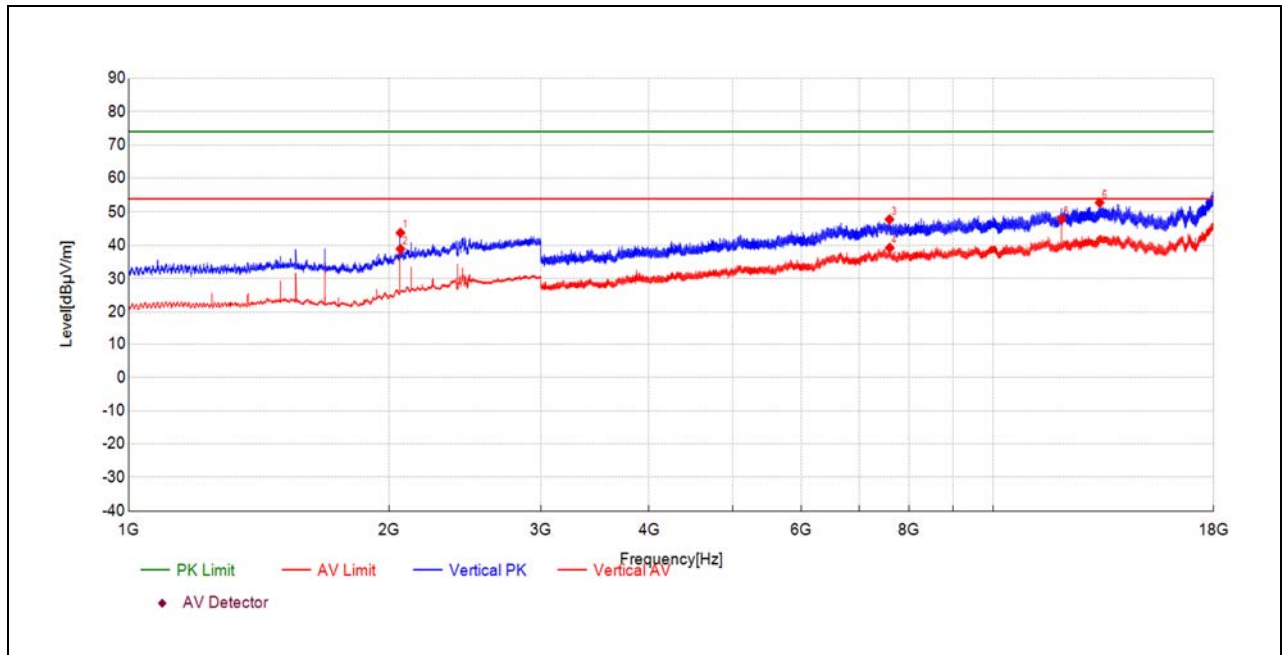
(30MHz – 1GHz, Test Antenna Vertical)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
67.30	55.8	22.31	-33.500	40.00	17.69	150	250	PK	PASS
122.69	58.0	25.35	-32.610	43.50	18.15	150	103	PK	PASS
183.07	57.3	26.03	-31.250	43.50	17.47	150	360	PK	PASS
233.18	54.3	25.73	-28.550	46.00	20.27	150	290	PK	PASS
303.99	51.3	24.46	-26.870	46.00	21.54	150	169	PK	PASS
365.30	49.4	24.15	-25.210	46.00	21.85	150	359	PK	PASS



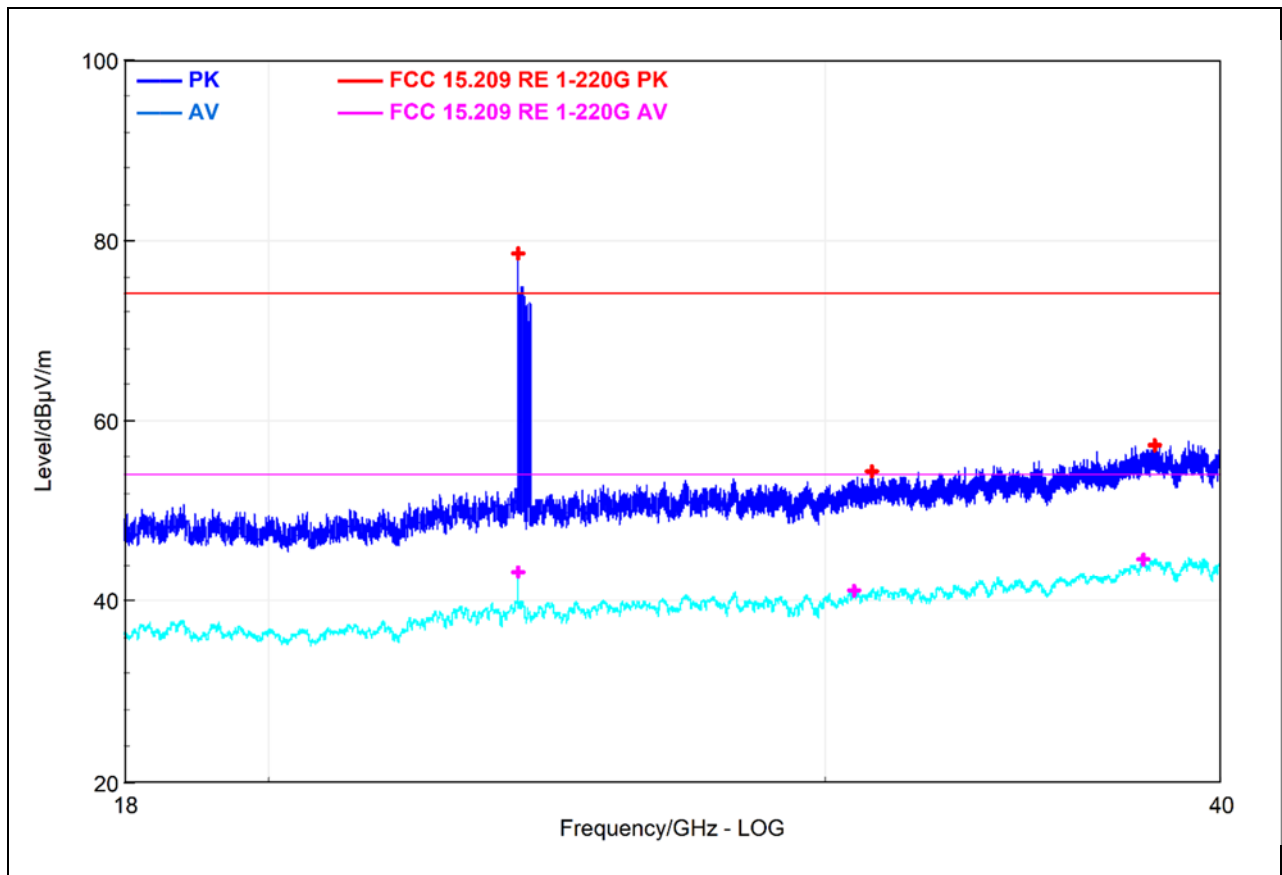
(1GHz – 18GHz, Test Antenna Horizontal)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2062.76	44.9	43.31	-1.550	74.00	30.69	160	360	PK	PASS
2062.76	41.3	39.76	-1.550	54.00	14.24	160	360	AV	PASS
8579.73	42.5	39.76	-2.690	54.00	14.24	160	254	AV	PASS
9611.76	50.0	48.52	-1.480	74.00	25.48	160	329	PK	PASS
12005.83	45.1	47.43	2.380	54.00	6.57	160	311	AV	PASS
13376.87	48.1	53.05	4.910	74.00	20.95	160	0	PK	PASS



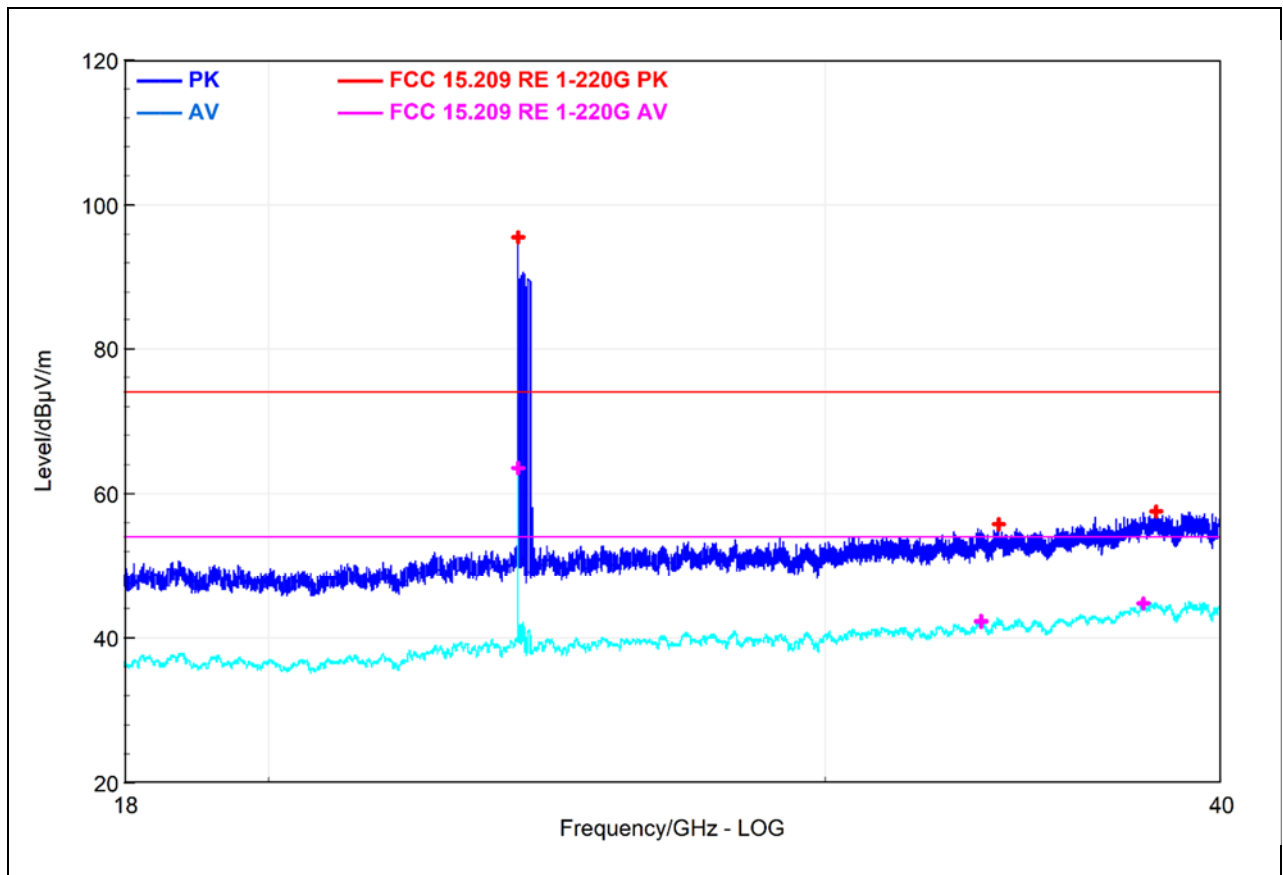
(1GHz – 18GHz, Test Antenna Vertical)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2062.76	45.3	43.75	-1.550	74.00	30.25	160	59	PK	PASS
2062.76	40.5	38.92	-1.550	54.00	15.08	160	9	AV	PASS
7589.27	50.8	47.79	-3.030	74.00	26.21	160	85	PK	PASS
7595.70	42.2	39.24	-2.980	54.00	14.76	160	350	AV	PASS
12005.83	45.5	47.88	2.380	54.00	6.12	160	0	AV	PASS
13285.15	47.5	52.85	5.330	74.00	21.15	160	293	PK	PASS



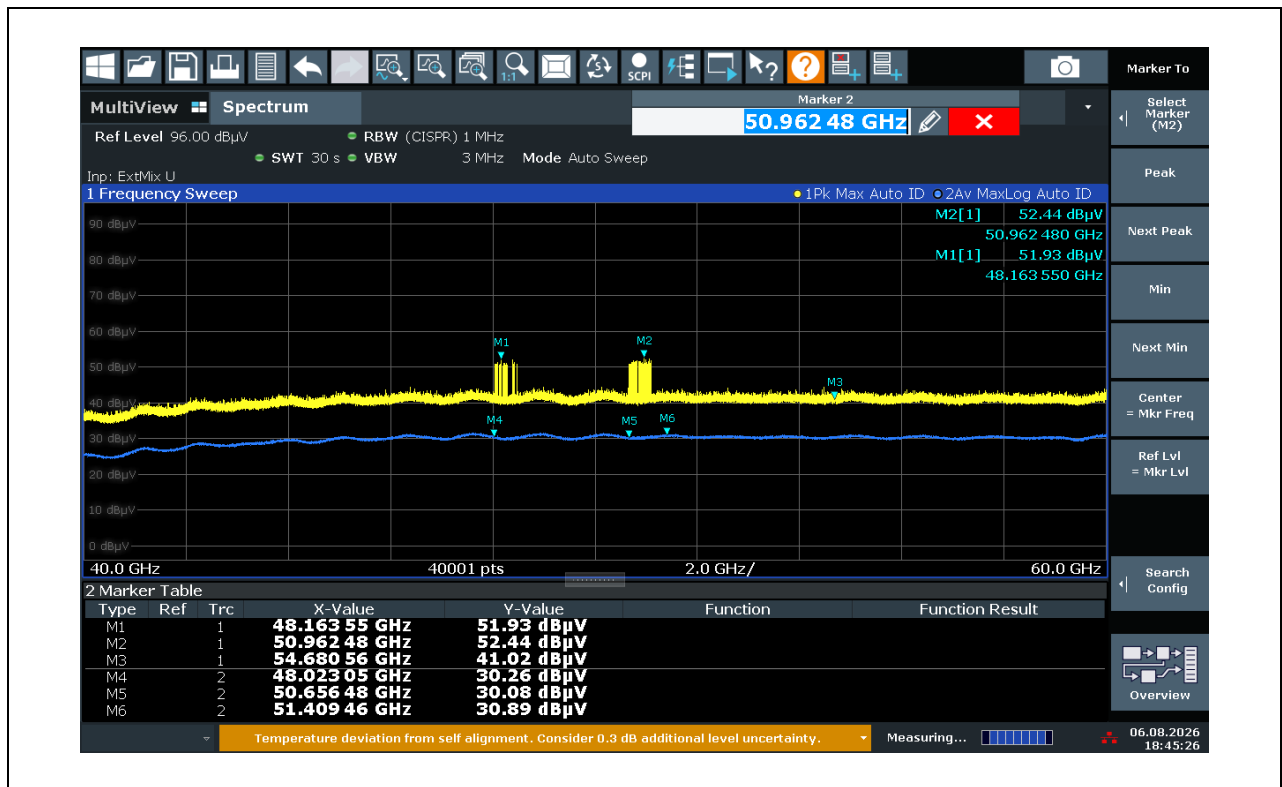
(18GHz – 40GHz, Test Antenna Horizontal)

Frequency (GHz)	Reading (dBμV)	Factor (dB/m)	Level (dBμV/m)	Detector	Limit (dBμV/m)	Margin(dB)	Verdict
24.011273	80.704	-2.224	78.48	PK	74	-4.48	NA
31.068594	55.545	-1.195	54.35	PK	74	19.65	PASS
38.171917	54.448	2.782	57.23	PK	74	16.77	PASS
24.010273	45.158	-1.988	43.17	AV	54	10.83	PASS
30.661576	41.489	-0.589	40.9	AV	54	13.1	PASS
37.849902	41.498	3.082	44.58	AV	54	9.42	PASS



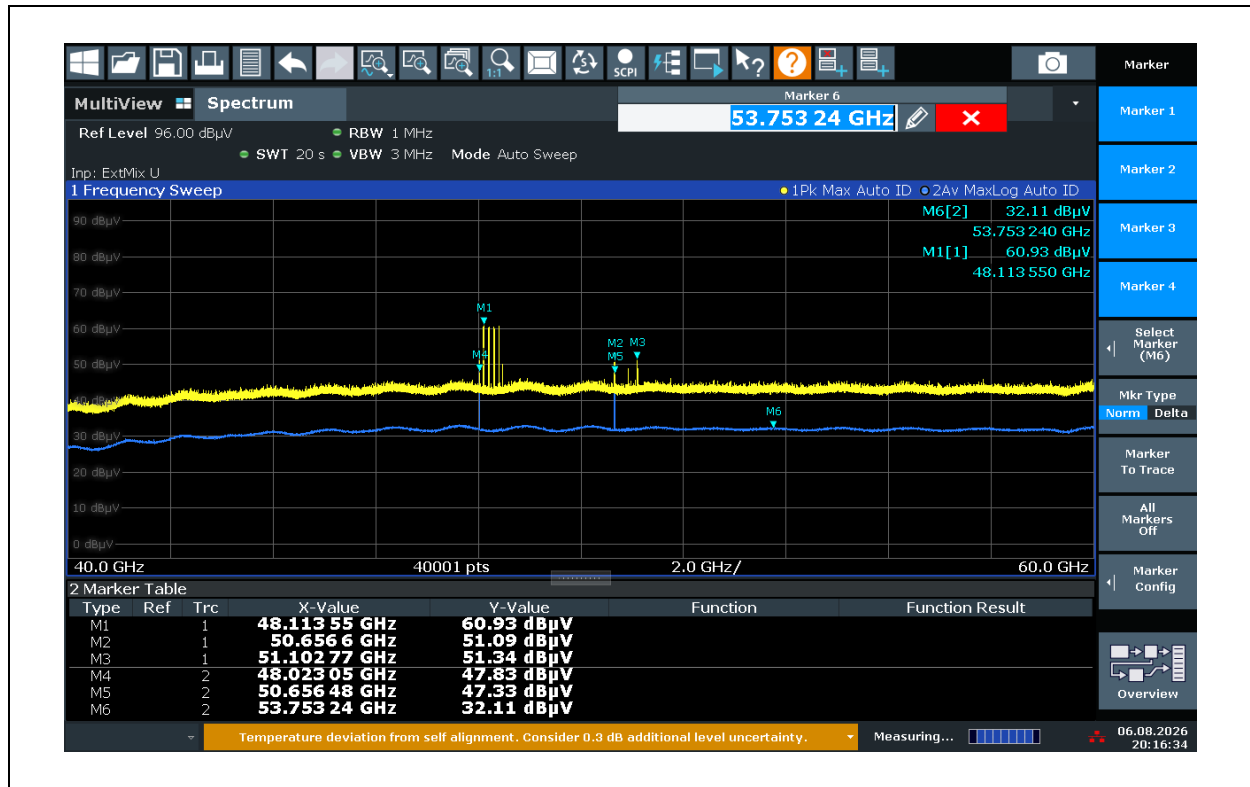
(18GHz – 40GHz, Test Antenna Vertical)

Frequency (GHz)	Reading (dBμV)	Factor (dB/m)	Level (dBμV/m)	Detector	Limit (dBμV/m)	Margin(dB)	Verdict
24.011273	97.498	-1.988	95.51	PK	74	-21.51	NA
24.011273	96.112	-0.602	95.51	PK	74	-21.51	NA
34.048729	54.12	1.51	55.63	PK	74	18.37	PASS
38.201918	59.428	-1.888	57.54	PK	74	16.46	PASS
24.011273	65.518	-1.988	63.53	AV	54	-9.53	PASS
24.011273	64.132	-0.602	63.53	AV	54	-9.53	PASS
33.62271	40.65	1.51	42.16	AV	54	11.84	PASS
37.858903	46.398	-1.888	44.51	AV	54	9.49	PASS



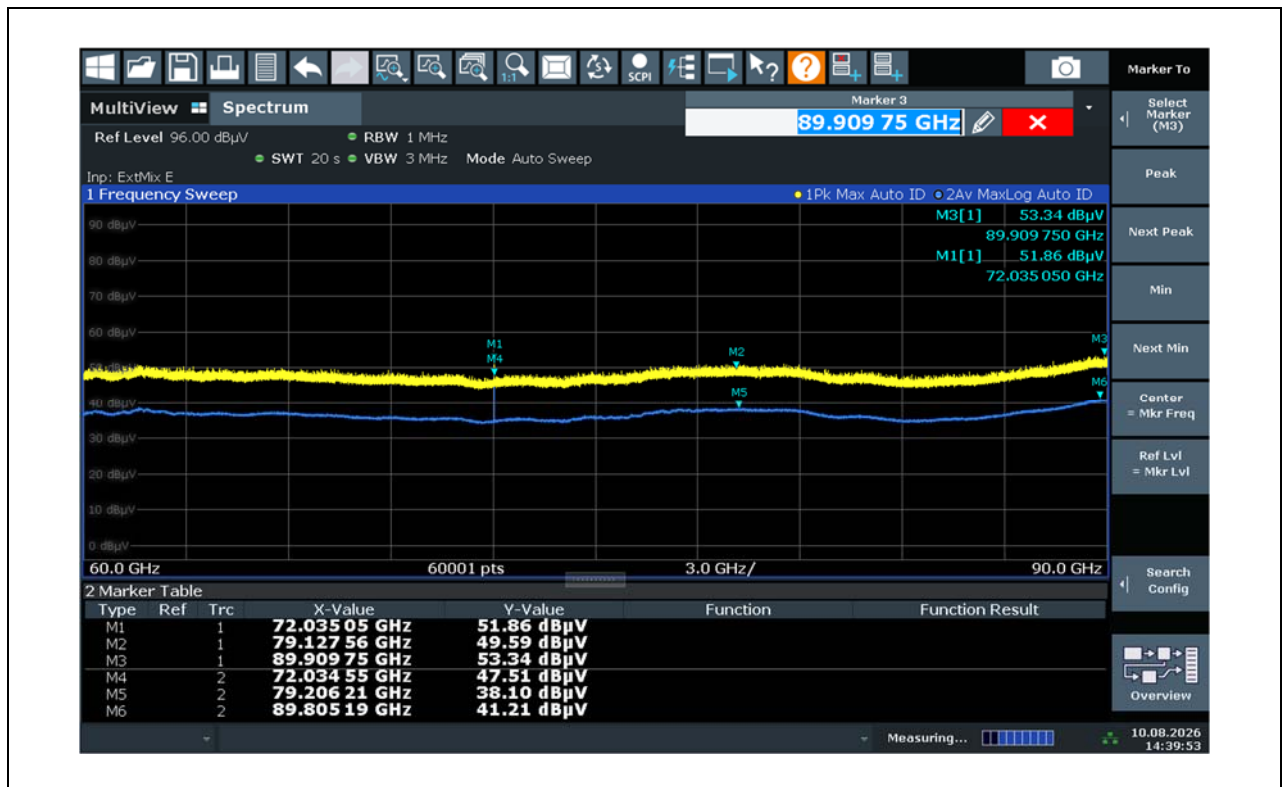
(40GHz – 60GHz, Test Antenna Horizontal)

Freq. [MHz]	Reading [dBμV]	Pre- amp Gain [dB]	Conversion Loss [dB]	Cable Loss [dB]	Antenna Factor [dB/m]	Level @1.5m [dBμV/m]	Level @3m [dBμV/m]	AV-Limit @3m [dBμV/m]	Detector	Verdict
48.16355	51.93	40.2	6.1	0.6	42.8	61.23	55.23	88	Peak	PASS
50.96248	52.44	40.2	6.1	0.6	42.8	61.74	55.74	74	Peak	PASS
54.68056	41.02	40.2	6.1	0.6	42.8	50.32	44.32	74	Peak	PASS
48.02305	30.26	40.2	6.1	0.6	42.8	39.56	33.56	68	AV	PASS
50.65648	30.08	40.2	6.1	0.6	42.8	39.38	33.38	54	AV	PASS
51.40946	30.89	40.2	6.1	0.6	42.8	40.19	34.19	54	AV	PASS



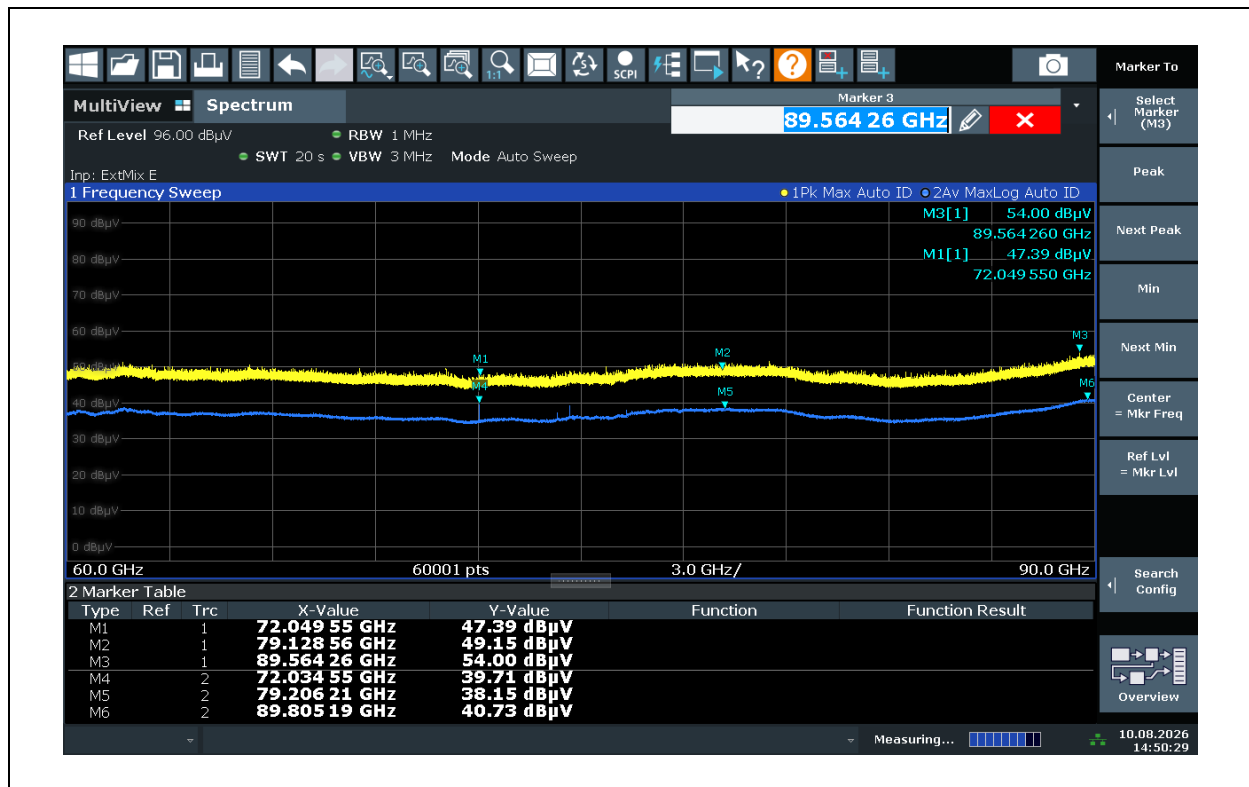
(40GHz – 60GHz, Test Antenna Vertical)

Freq. [MHz]	Reading [dBμV]	Pre- amp Gain [dB]	Conversion Loss [dB]	Cable Loss [dB]	Antenna Factor [dB/m]	Level @1.5m [dBμV/m]	Level @3m [dBμV/m]	AV-Limit @3m [dBμV/m]	Detector	Verdict
48.11355	60.93	40.2	6.1	0.6	42.8	70.23	64.23	88	Peak	PASS
50.6566	51.09	40.2	6.1	0.6	42.8	60.39	54.39	74	Peak	PASS
51.10277	51.34	40.2	6.1	0.6	42.8	60.64	54.64	74	Peak	PASS
48.02305	47.83	40.2	6.1	0.6	42.8	57.13	51.13	68	AV	PASS
50.65648	47.33	40.2	6.1	0.6	42.8	56.63	50.63	54	AV	PASS
53.75.24	32.11	40.2	6.1	0.6	42.8	41.41	35.41	54	AV	PASS



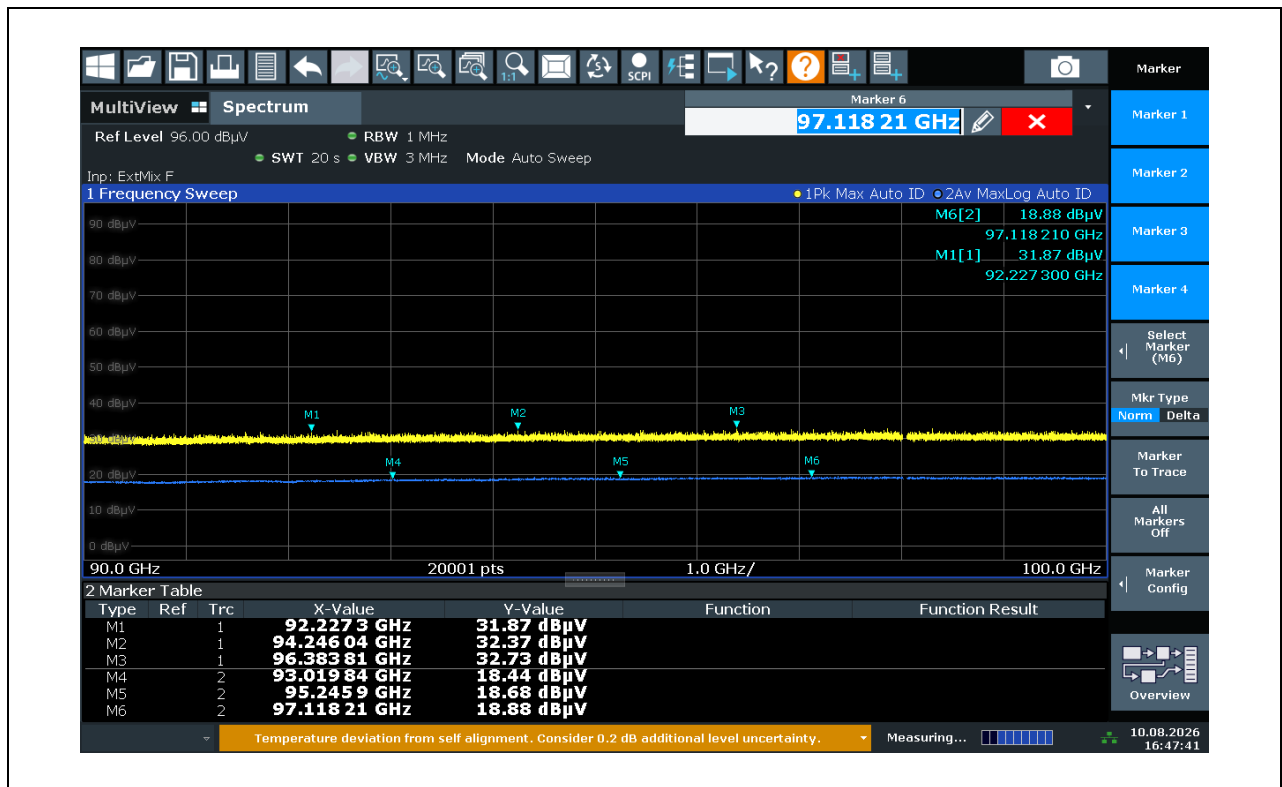
(60GHz – 90GHz, Test Antenna Horizontal)

Freq. [MHz]	Reading [dBμV]	Pre- amp Gain [dB]	Conversion Loss [dB]	Cable Loss [dB]	Antenna Factor [dB/m]	Level @1.5m [dBμV/m]	Level @3m [dBμV/m]	AV-Limit @3m [dBμV/m]	Detector	Verdict
72.03505	51.86	42.8	6.3	0.6	46.5	62.46	56.46	88	Peak	PASS
79.12756	49.59	42.8	6.3	0.6	46.5	60.19	54.19	74	Peak	PASS
89.90975	53.34	42.8	6.3	0.6	46.5	63.94	57.94	74	Peak	PASS
72.03455	47.51	42.8	6.3	0.6	46.5	58.11	52.11	68	AV	PASS
79.20621	38.1	42.8	6.3	0.6	46.5	48.7	42.7	54	AV	PASS
89.80519	41.21	42.8	6.3	0.6	46.5	51.81	45.81	54	AV	PASS



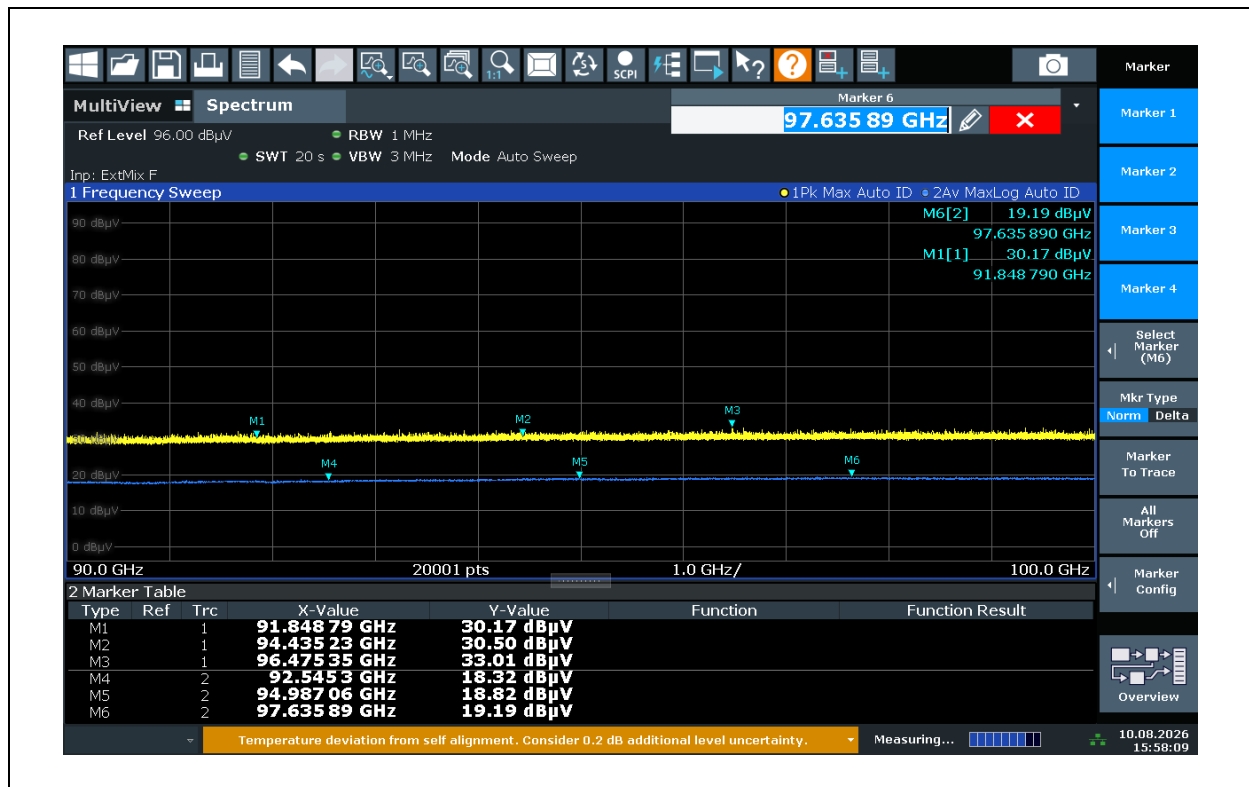
(60GHz – 90GHz, Test Antenna Vertical)

Freq. [MHz]	Reading [dBμV]	Pre- amp Gain [dB]	Conversion Loss [dB]	Cable Loss [dB]	Antenna Factor [dB/m]	Level @1.5m [dBμV/m]	Level @3m [dBμV/m]	AV-Limit @3m [dBμV/m]	Detector	Verdict
72.04955	47.39	42.8	6.3	0.6	46.5	57.99	51.99	88	Peak	PASS
79.12856	49.15	42.8	6.3	0.6	46.5	59.75	53.75	74	Peak	PASS
89.56426	54	42.8	6.3	0.6	46.5	64.6	58.6	74	Peak	PASS
72.03455	39.71	42.8	6.3	0.6	46.5	50.31	44.31	68	AV	PASS
79.20621	38.15	42.8	6.3	0.6	46.5	48.75	42.75	54	AV	PASS
89.80519	40.73	42.8	6.3	0.6	46.5	51.33	45.33	54	AV	PASS



(90GHz – 100GHz, Test Antenna Horizontal)

Freq. [MHz]	Reading [dBμV]	Pre- amp Gain [dB]	Conversion Loss [dB]	Cable Loss [dB]	Antenna Factor [dB/m]	Level @1.5m [dBμV/m]	Level @3m [dBμV/m]	AV-Limit @3m [dBμV/m]	Detector	Verdict
92.2273	31.87	18.2	6.4	0.6	45.7	66.37	60.37	74	Peak	PASS
94.24604	32.37	18.2	6.4	0.6	45.7	66.87	60.87	74	Peak	PASS
96.38381	32.73	18.2	6.4	0.6	45.7	67.23	61.23	74	Peak	PASS
93.01984	18.44	18.2	6.4	0.6	45.7	52.94	46.94	54	AV	PASS
95.2459	18.68	18.2	6.4	0.6	45.7	53.18	47.18	54	AV	PASS
97.11821	18.88	18.2	6.4	0.6	45.7	53.38	47.38	54	AV	PASS



(90GHz – 100GHz, Test Antenna Vertical)

Freq. [MHz]	Reading [dBμV]	Pre- amp Gain [dB]	Conversion Loss [dB]	Cable Loss [dB]	Antenna Factor [dB/m]	Level @1.5m [dBμV/m]	Level @3m [dBμV/m]	AV-Limit @3m [dBμV/m]	Detector	Verdict
91.84879	30.17	18.2	6.4	0.6	45.7	64.67	58.67	74	Peak	PASS
94.43523	30.5	18.2	6.4	0.6	45.7	65	59	74	Peak	PASS
96.47535	33.01	18.2	6.4	0.6	45.7	67.51	61.51	74	Peak	PASS
92.5453	18.32	18.2	6.4	0.6	45.7	52.82	46.82	54	AV	PASS
94.98706	18.82	18.2	6.4	0.6	45.7	53.32	47.32	54	AV	PASS
97.63589	19.19	18.2	6.4	0.6	45.7	53.69	47.69	54	AV	PASS



Annex A Test Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.:

Uncertainty of Radiated Emission Measurement

Test Items	Uncertainty
Measuring Uncertainty for a Level of Confidence of 95%(U=2Uc(y))	±5%

Uncertainty of Radiated Emission Measurement

Test Items	Uncertainty	
Measuring Uncertainty for a Level of Confidence of 95%(U=2Uc(y))	30MHz-200MHz	±5.06dB
	200MHz-1000MHz	±5.04dB
	1GHz-6GHz	±5.18dB
	6GHz-18GHz	±5.48dB



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.1-3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2020 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



4. Test Equipment Utilized

4.1 Radiated Test Equipment

Equipment	Serial No.	Model No.	Manufacturer	Cal. Date	Due Date
Signal Analyzer	1331.5003K4 3-102271-zt	FSW	R&S	2026.04.28	2027.04.27
Test Antenna - Horn	02634	BBHA 9120D	Schwarzbeck	2026.06.13	2027.06.12
Test Antenna -Horn	BBHA9170#7 73	BBHA9170	Schwarzbeck	2026.05.30	2027.05.29
Test Antenna -Loop	00131	FMZB 1519B	Schwarzbeck	2025.09.08	2026.09.07
Test Antenna - Bi-Log	01267	VULB9163	Schwarzbeck	2026.07.01	2027.06.30
Test Antenna -Horn (40GHz -60GHz)	2020036000 036	LB-19-20-A	A-INFOMW	2022.06.16	2027.06.15
Test Antenna -Horn (60GHz -90GHz)	J202026347	LB-19-20-A	A-INFOMW	2022.06.16	2027.06.15
Test Antenna -Horn (90GHz -140GHz)	J202062617	LB-19-20-A	A-INFOMW	2022.06.16	2027.06.15
Signal Generator	203403	MG3692C	anritsu	2025.09.03	2026.09.02
Preamplifier (10MHz-6GHz)	46732	S10M100L38 02	LUCIX CORP.	2026.05.07	2027.05.06
Preamplifier (2GHz-18GHz)	61171/61172	S020180L32 03	LUCIX CORP.	2026.05.07	2027.05.06
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118- 40C-S	Decentest	2026.05.07	2027.05.06
Low Noise Amplifier (40GHz-60GHz)	ADSE01	OQ-LNA- 4060-3805C	Shanghai Ouqiao Electronics Technology Co.,Ltd	2024.08.17	2026.08.17
Low Noise Amplifier (60GHz-90GHz)	ADJU05	OQ-LNA- 6090-3805T	Shanghai Ouqiao Electronics Technology	2024.08.17	2026.08.17



			Co.,Ltd		
Low Noise Amplifier (90GHz-140GHz)	AEMA02	AT-LNA-90140-1806E	Shanghai AT Microwave Ltd.	2025.02.26	2027.02.25
Spectrum Analyzer Frequency Conversion Module(40GHz-60GHz)	2022081902	SAFC19	Nanjing Nuozhijie Electronic Technology Co.,Ltd	2025.06.11	2027.06.10
Spectrum Analyzer Frequency Conversion Module(60GHz-90GHz)	2022081904	SAFC12	Nanjing Nuozhijie Electronic Technology Co.,Ltd	2025.06.11	2027.06.10
Spectrum Analyzer Frequency Conversion Module(90GHz-140GHz)	2023022002	SAFC08	Nanjing Nuozhijie Electronic Technology Co.,Ltd	2025.02.28	2027.02.27
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2025.09.03	2026.09.02
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2025.09.03	2026.09.02
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2025.09.03	2026.09.02
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK-0.5	Qualwave	2025.09.03	2026.09.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KKF-2	Qualwave	2025.09.03	2026.09.02
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-NN-5	Qualwave	2025.09.03	2026.09.02
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.06.21	2028.06.20
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.04.19	2028.04.18

**4.2 Conducted Emission Test Equipment**

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	101052	ESPI	R&S	2026.05.07	2027.05.06
LISN	103131	ENV 216	R&S	2026.03.18	2027.03.17
INTELLIGENT PURE SINE- WAVE POWER SUPPLY	1008004	TPS 500B	EVERFINE	2025.09.11	2026.09.10
RF Coaxial Cable (DC-100MHz)	EMC-CE-00514	N/A	N/A	2026.04.30	2027.04.29

4.3 Test Software Utilized

Description	Manufacturer	Software Version
TS+ -[JS36-RSE]	Tonscend	5.0.0
TS+ -[JS32-CE]	Tonscend	2.5.0.0
DC-EMC	Decentest	V01.30



Notes

1. The report shall have report stamp or our company stamp.
2. The report shall be invalid without all the signatures of the editor and approver.
3. The report shall not be changed.
4. Any objections must be raised to Morlab within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.
5. Conformity declaration:
 - ☒ Morlab issues a statement of conformity based on the corresponding standards (default)
 - ☐ Morlab issues a statement of conformity based on the applicant requirement
6. Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the testing standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule).

_____ END OF REPORT _____