



RADIO TEST REPORT

FCC ID : ZL7-RADAR1
Equipment : AEGIS RADAR
Brand Name : GIANT 、 Liv 、 momentum
Model Name : AEGIS RADAR
Applicant : GIANT MANUFACTURING CO., LTD.
No. 999, Sec. 1, Dongda Rd., Xitun Dist., Taichung
City 40763, TAIWAN (R.O.C.)
Manufacturer : Maintek Computer (Suzhou) Co., Ltd.
No. 233, Jin Feng Rd., Suzhou New District,
Suzhou, Jiangsu, China 215011
Standard : 47 CFR FCC Part 15 Subpart C § 15.249

The product was received on Apr. 12, 2025, and testing was started from Jun. 17, 2025 and completed on Jun. 18, 2025. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2020 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A11_2 Ver1.4



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	15.207	AC Power Line Conducted Emissions	N/A	-
2.1	15.249(a)	Field Strength of Fundamental Emissions	PASS	-
2.2	15.215(c)	20dB Spectrum Bandwidth	PASS	-
2.3	15.249(a)/(d)	Radiated Emissions	PASS	-
2.4	15.249(d)	Band Edge Emissions	PASS	-
2.5	15.203	Antenna Requirements	PASS	-
Note: The EUT was supplied power by battery (5Vdc); it's not necessary to apply to AC Power-line Conducted Emissions tests.				

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

1. The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.
2. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.

Reviewed by: Sam Chen**Report Producer: Cathy Chiu**

1 General Information

1.1 Product Details

Items	Description
Power Type	From battery (5Vdc)
Power Type for Testing	From host system (5Vdc)
Modulation	FMCW
Frequency Range	24000 ~ 24250 MHz
Operation Frequency Range	24120 ~ 24150 MHz
Testing Frequency	24135 MHz
Channel Bandwidth (99%)	21.860 MHz
Max. Field Strength	100.49 dBuV/m at 3m(Average) / 110.03 dBuV/m at 1m (Average) 100.58 dBuV/m at 3m(Peak) / 110.12 dBuV/m at 1m (Peak)

Note: The above information was declared by manufacturer.

1.2 Accessories

N/A

1.3 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	PEGATRON	AEGIS RADAR ANTENNA 10	Patch Antenna	N/A	9

Note: The above information was declared by manufacturer.

For 24GHz function (1TX/1RX):

Only Ant. 1 can be used as transmitting/receiving antenna.



1.4 Table for Test Modes

The following table is a list of the test modes shown in this test report.

Test Items	Mode
Field Strength of Fundamental Emissions	CTX
20dB Spectrum Bandwidth	CTX
Radiated Emissions 30MHz~1GHz (Test Voltage: 120V/60Hz)	CTX
Radiated Emissions 1GHz~40GHz	CTX
Radiated Emissions 40GHz~100GHz	CTX
Band Edge Emissions	CTX

Note: CTX=continuously transmitting

< Radiated Emissions below 1GHz Test >

After evaluating, the worst case was found at X axis, thus the measurement will follow this same test configuration.

Mode 1: EUT 1 in X axis from host system (5Vdc)

Mode 2: EUT 2 in X axis from host system (5Vdc)

Mode 1 was the worst case, so it was selected to record in this test report.

< Radiated Emissions above 1GHz Test >

1. After evaluating, the worst case was found at X axis, thus the measurement will follow this same test configuration.
2. There are two modes, one is "EUT 1" mode and the other is "EUT 2" mode. After evaluating, the worst case was found at "EUT 2" mode, so the measurement will follow this same test.

Mode 1: EUT 2 in X axis from host system (5Vdc)

1.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ ANSI C63.10-2020
- ♦ 47 CFR FCC Part 15 Subpart C § 15.249

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ FCC KDB 414788 D01 v01r01



1.6 Table for Testing Locations

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
Test site Designation No. TW3787 with FCC.	
Conformity Assessment Body Identifier (CABID) TW3787 with ISCED.	

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated (Below 1GHz)	03CH06-CB	Gordon Hung	21.9-22.4 / 55-58	Jun. 17, 2025~ Jun. 18, 2025
Radiated (Above 1GHz)	03CH02-CB	Gordon Hung	22-23 / 55-58	Jun. 17, 2025~ Jun. 18, 2025

1.7 Table for Multiple Listing

The brand names in the following table are all refer to the identical product.

Brand Name	Description
GIANT	All the brands are identical, the difference brand served as marketing strategy.
Liv	
momentum	

Note 1: From the above brands, brand: GIANT was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.8 Table of EUT Information

EUT	Crystal		MCU		
	Brand Name	Model Name	Brand Name	Model Name	Part Number
1	FUJICOM	FSX3M 12.000000M18FDI	Infineon	XMC4700	E196F2048
2	TXC	7M12000039	Infineon	XMC4700	E196K2048

Note 1: From the above, EUT 1~2 have selected to execute Radiated Emissions below 1GHz test and EUT 2 has selected to execute Radiated Emissions above 1GHz test.

Note 2: The above information was declared by manufacturer.

**1.9 Table for Supporting Units**

No.	Support Unit	Brand	Model	FCC ID
A	Notebook	DELL	E4300	N/A
B	CANable	MKS	MKS CANable V2.0 Pro S	N/A

1.10 Duty Cycle

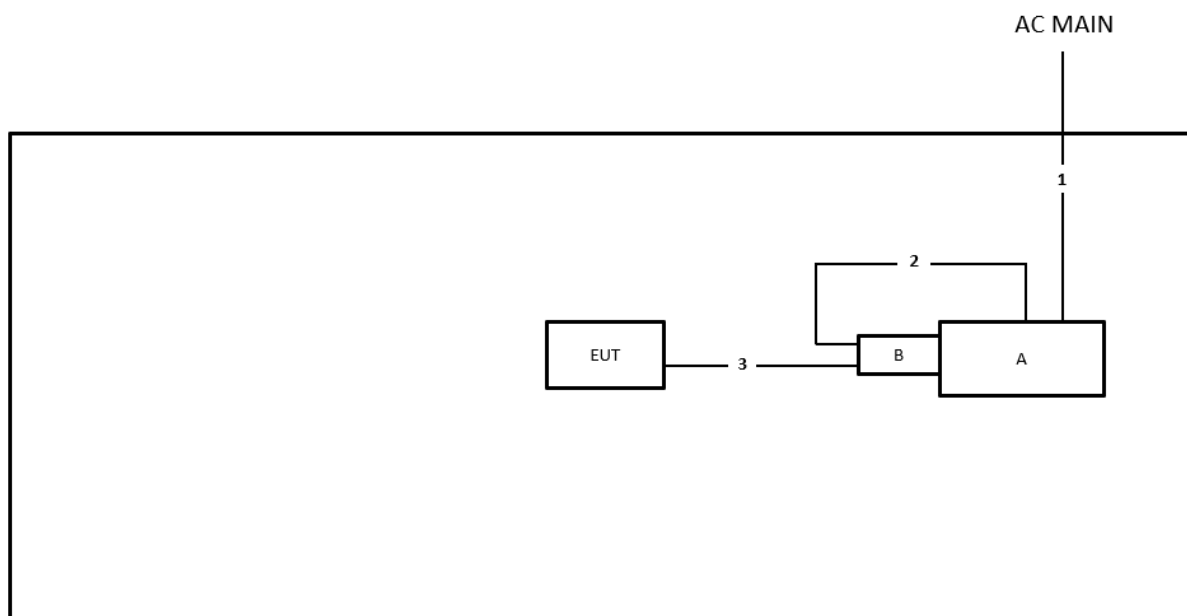
On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
15.300	49.800	30.72%	5.13	0.07

1.11 Table for Parameters of Test Software Setting

Test Software Version	Radar PC tool 3.4.6
Frequency	24135 MHz
Software Setting	Default

1.12 Test Configurations

1.12.1 Radiation Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	USB cable	No	0.55m
3	USB cable	No	0.55m



2 Test Result

2.1 Field Strength of Fundamental Emissions Measurement

2.1.1 Limit

The field strength of fundamental emissions within these bands specified at a distance of 3 meters (measurement instrumentation employing an average detector) shall comply with the following table.

Frequency Band	Fundamental Emissions Limit Average/Peak (dBuV/m) at 3m
24000 ~ 24250 MHz	107.96/127.96

Note 1: 107.96 dBuV/m rounding to 108dBuV/m and 127.96 dBuV/m rounding to 128dBuV/m

Note 2: Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.

Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1m]})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

Average limit = 108dBuV/m + distance extrapolation factor (9.54 dB) = 117.54dBuV/m.

Peak limit = 128dBuV/m + distance extrapolation factor (9.54 dB) = 137.54dBuV/m.

2.1.2 Measuring Instruments and Setting

Refer a test equipment and calibration data table in this test report. The following table is the setting of the spectrum analyzer.

Power Meter Parameter	Setting
RBW	1 MHz
VBW	3 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

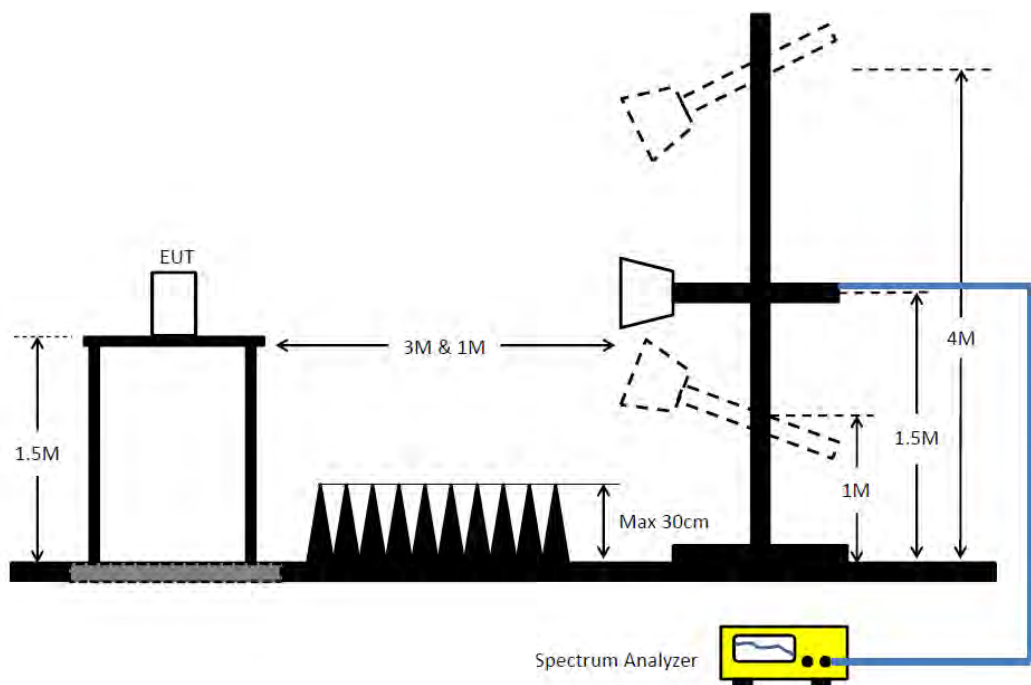
2.1.3 Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable

was rotated (from 0 degree to 360 degrees) to find the maximum reading.

5. For Fundamental emissions, use 1MHz RBW and 3MHz VBW for peak reading. The average is used peak level + correction factor.
6. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

2.1.4 Test Setup Layout



2.1.5 Test Deviation

There is no deviation with the original standard.

2.1.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.1.7 Measurement Results Calculation

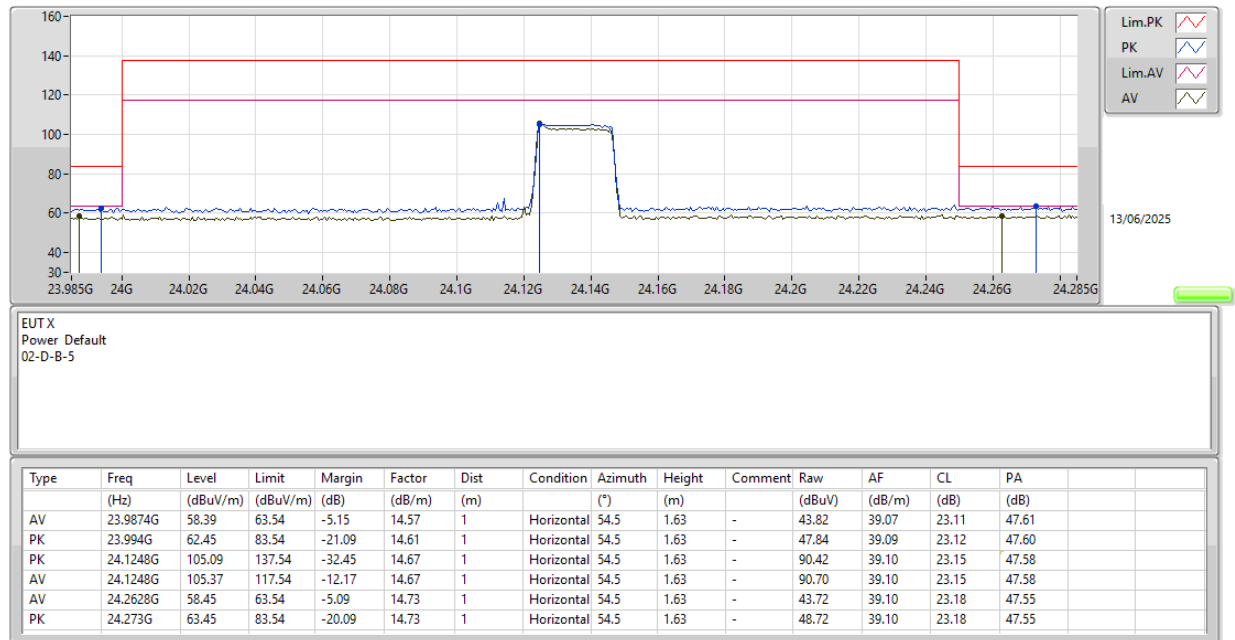
The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamplifier factor (PA)(if applicable) = Level.

2.1.8 Test Result of Field Strength of Fundamental Emissions

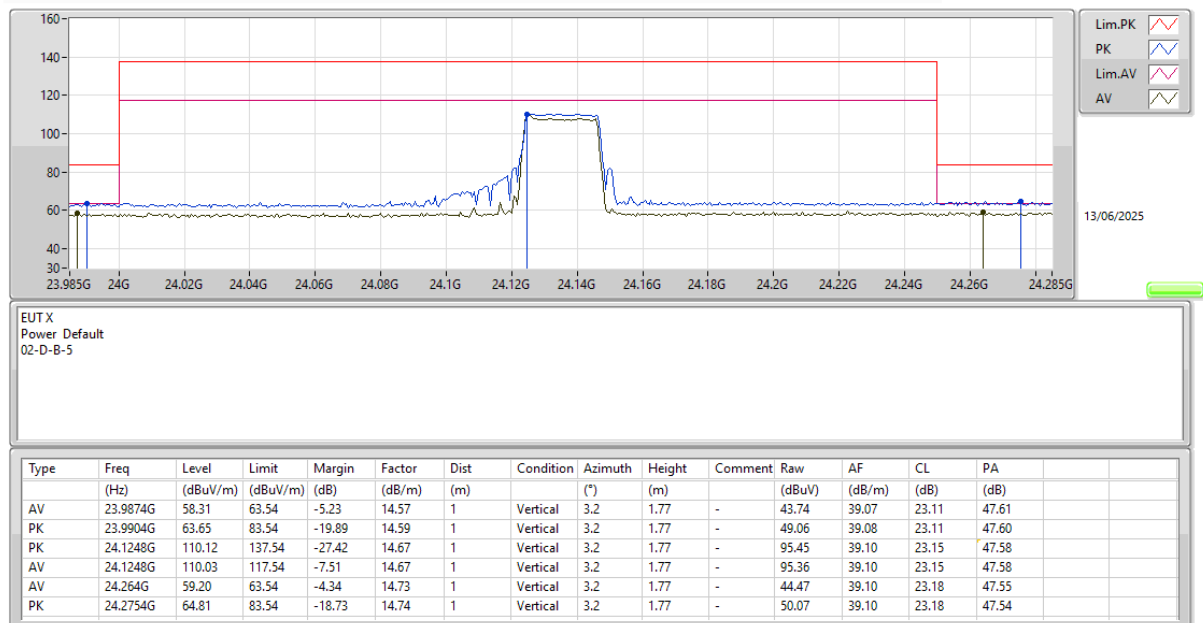
Horizontal

Mode 1



Vertical

Mode 1



2.2 20dB Spectrum Bandwidth Measurement

2.2.1 Limit

Intentional radiators must be designed to ensure that the 20 dB bandwidth of the emissions in the specific band (24000 ~ 24250 MHz).

2.2.2 Measuring Instruments and Setting

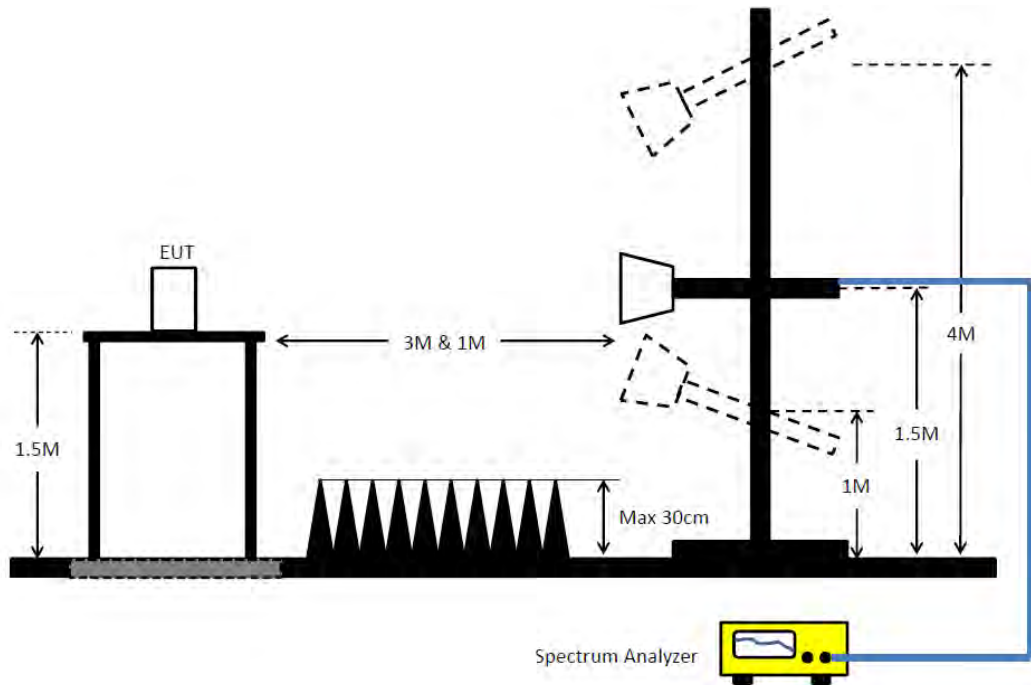
Refer a test equipment and calibration data table in this test report. The following table is the setting of the spectrum analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 20dB Bandwidth
RBW	20 dB Bandwidth 1%~5%
VBW	3 time RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

2.2.3 Test Procedures

1. The test procedure is the same as section 2.3.3.
2. The resolution bandwidth (20 dB Bandwidth 1%~5%) and the video bandwidth (3 time RBW) were used.
3. Measured the spectrum width with power higher than 20dB below carrier.

2.2.4 Test Setup Layout



2.2.5 Test Deviation

There is no deviation with the original standard.

2.2.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

**2.2.7 Test Result of 20dB Spectrum Bandwidth**

Frequency	20dB BW (MHz)	99% OBW (MHz)	Frequency range (MHz) $f_L > 24000\text{MHz}$	Frequency range (MHz) $f_H < 24835\text{MHz}$	Test Result
24135 MHz	22.290	21.860	24123.490	24145.780	PASS

20 dB Bandwidth Plot on 24135 MHz

2.3 Radiated Emissions Measurement

2.3.1 Limit

For 9kHz~40GHz

Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions 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 comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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
Above 960	500	3

For 40GHz~100GHz

Emissions 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 47 CFR Part 15.249, whichever is the lesser attenuation.

Operating Frequencies	Harmonics Strength (micorvolts/meter)	Harmonics Strength (dBuV/m) at 3m
24000 ~ 24250 MHz	2500 at 3m	68 (Average)
24000 ~ 24250 MHz	2500 at 3m	88 (Peak)

2.3.2 Measuring Instruments and Setting

Refer a test equipment and calibration data table in this test report. The following table is the setting of the spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW	1MHz / 3MHz for Peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

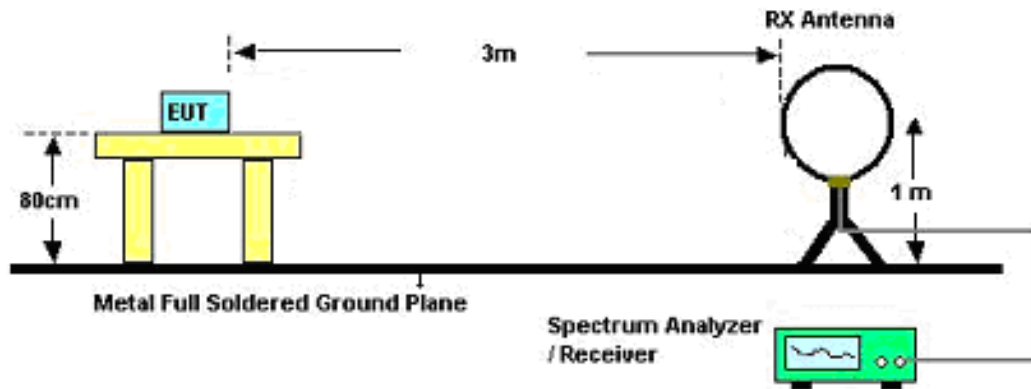


2.3.3 Test Procedures

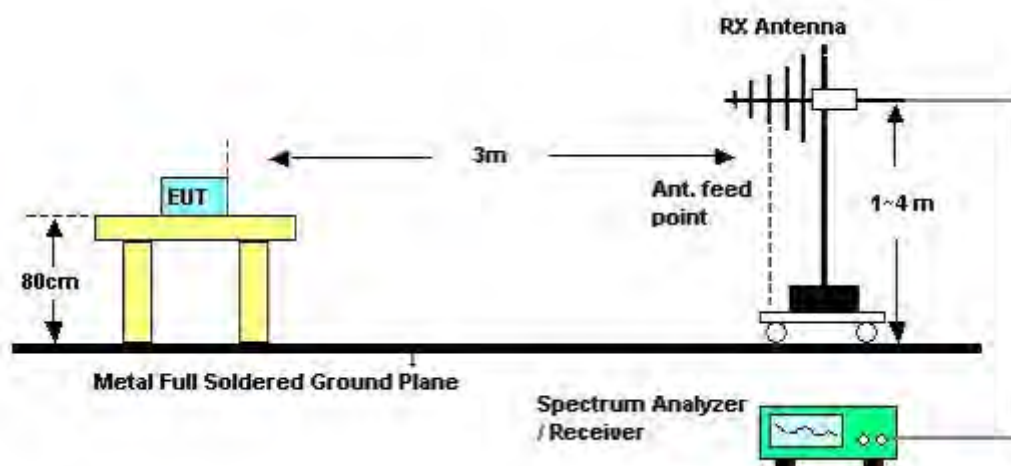
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. The average is used peak level + correction factor.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

2.3.4 Test Setup Layout

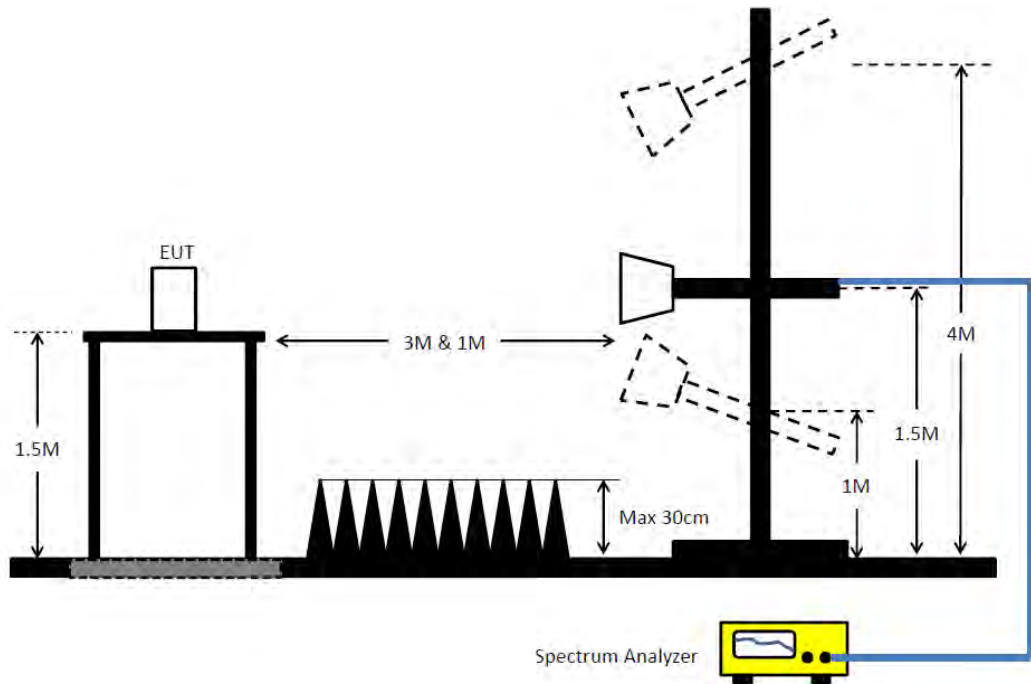
For Radiated Emissions: 9kHz ~30MHz



For Radiated Emissions: 30MHz~1GHz



For radiated emissions: 1GHz~40GHz

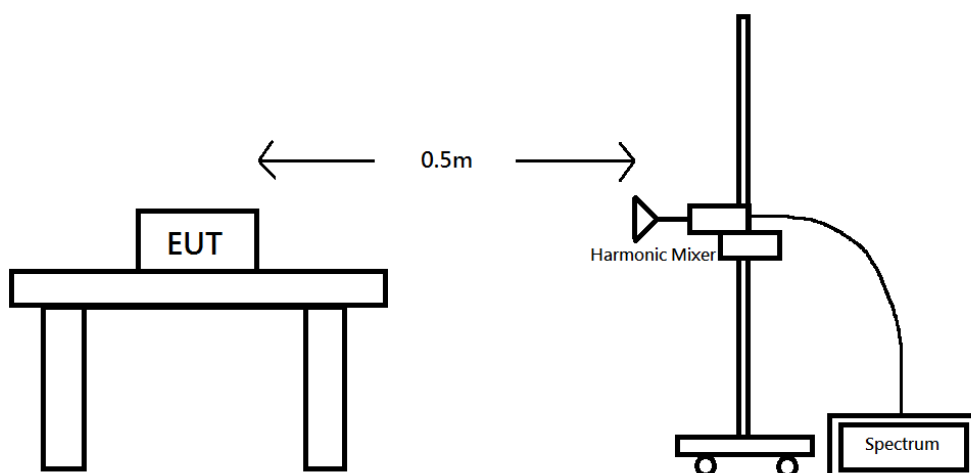


Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.

Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1m]})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

For radiated emissions: 40GHz~100GHz



**2.3.5 Test Deviation**

There is no deviation with the original standard.

2.3.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.3.7 Measurement Results Calculation

The measured Level is calculated using:

For below 40GHz

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

For above 40GHz

$$\text{EIRP} = \text{Meas. Level} - \text{RX Antenna Gain} + 20 \cdot \log(4 \cdot \pi (3.14159)^2 \cdot D^2 / (300 / (\text{Frequency} \cdot 1000)))$$

**2.3.8 Results of Radiated Emissions (9kHz~30MHz)**

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

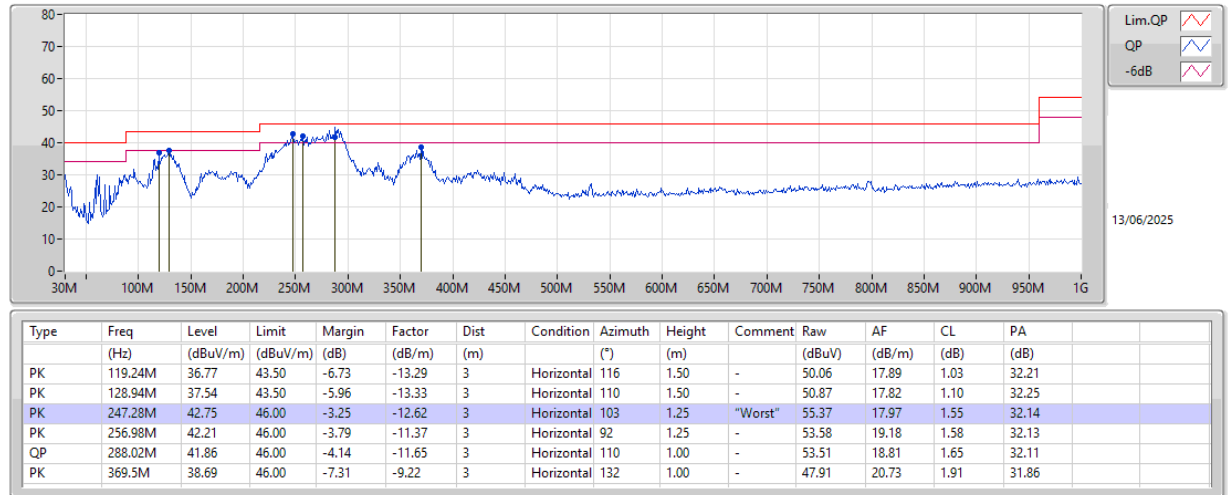
Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

2.3.9 Results of Radiated Emissions (30MHz~1GHz)

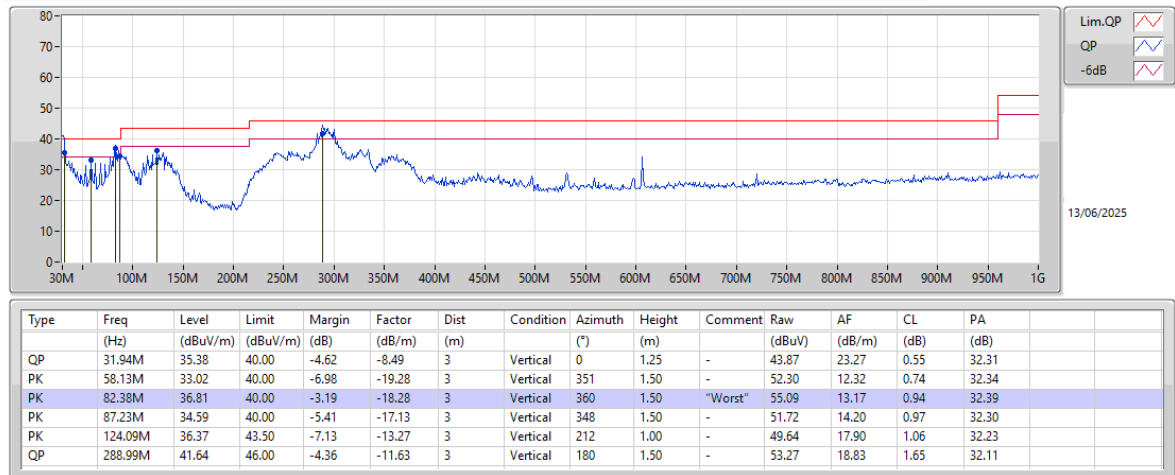
Horizontal

Mode 1



Vertical

Mode 1



Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

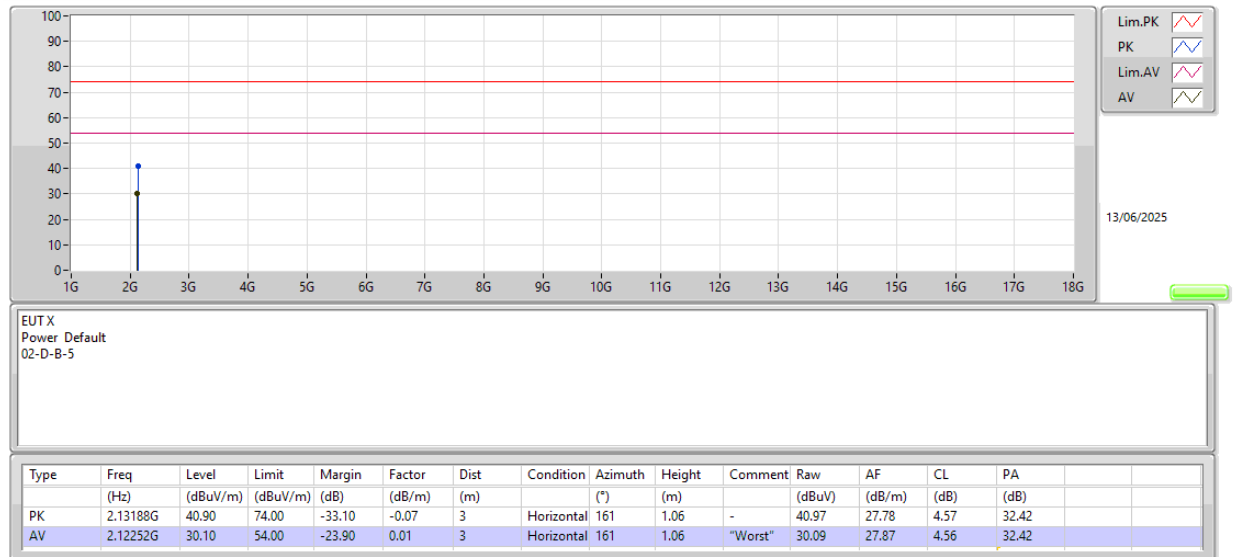
Emission level (dBuV/m) = 20 log Emission level (uV/m).



2.3.10 Results for Radiated Emissions (1GHz~40GHz)

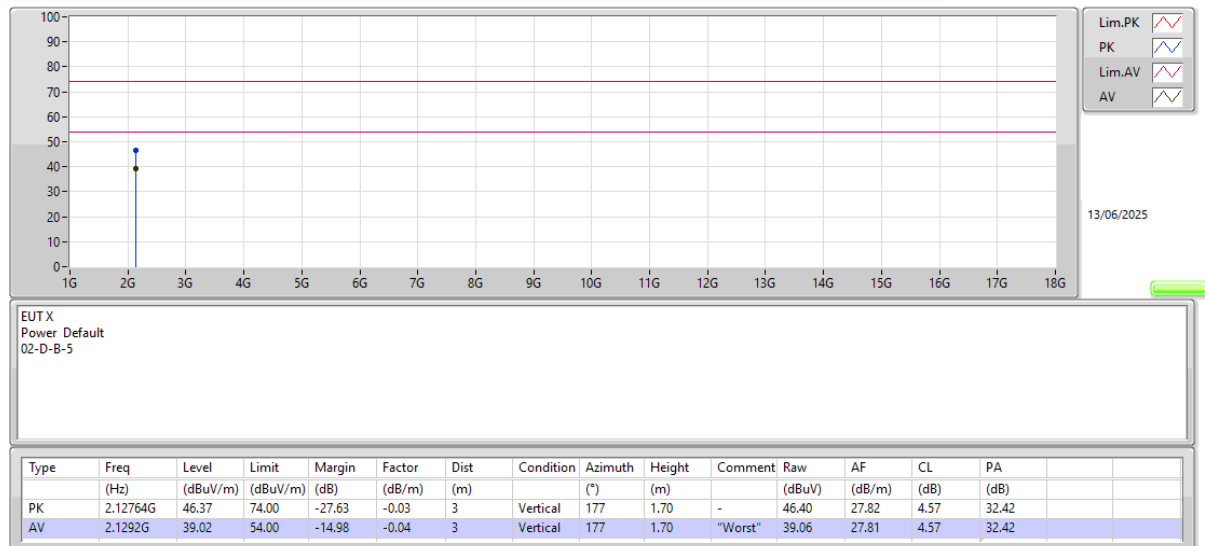
Horizontal

Mode 1



Vertical

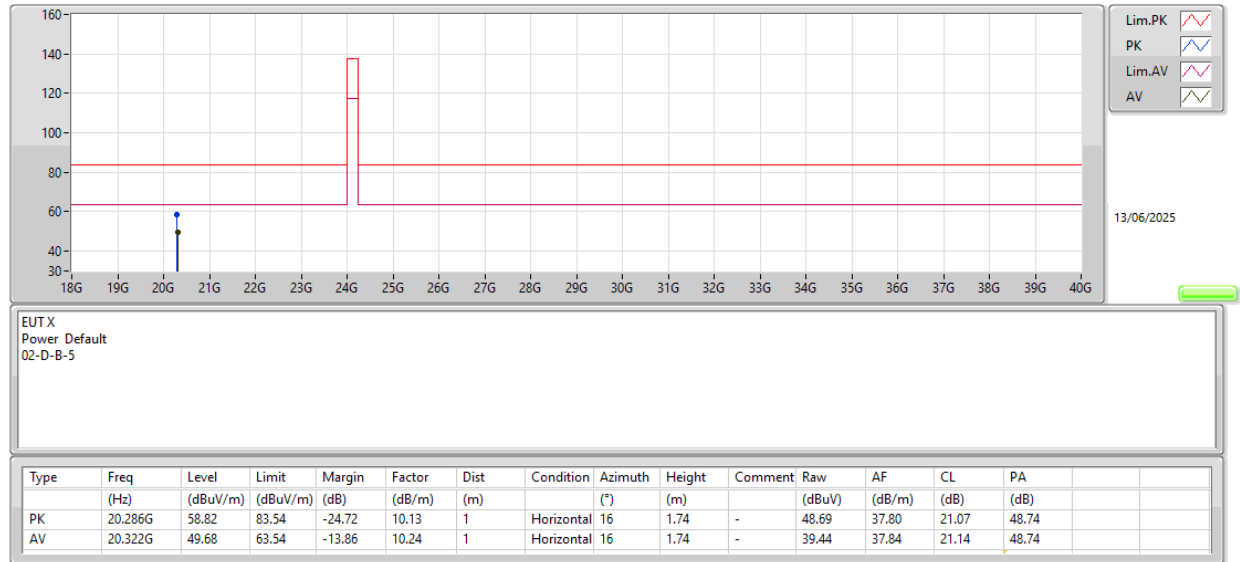
Mode 1





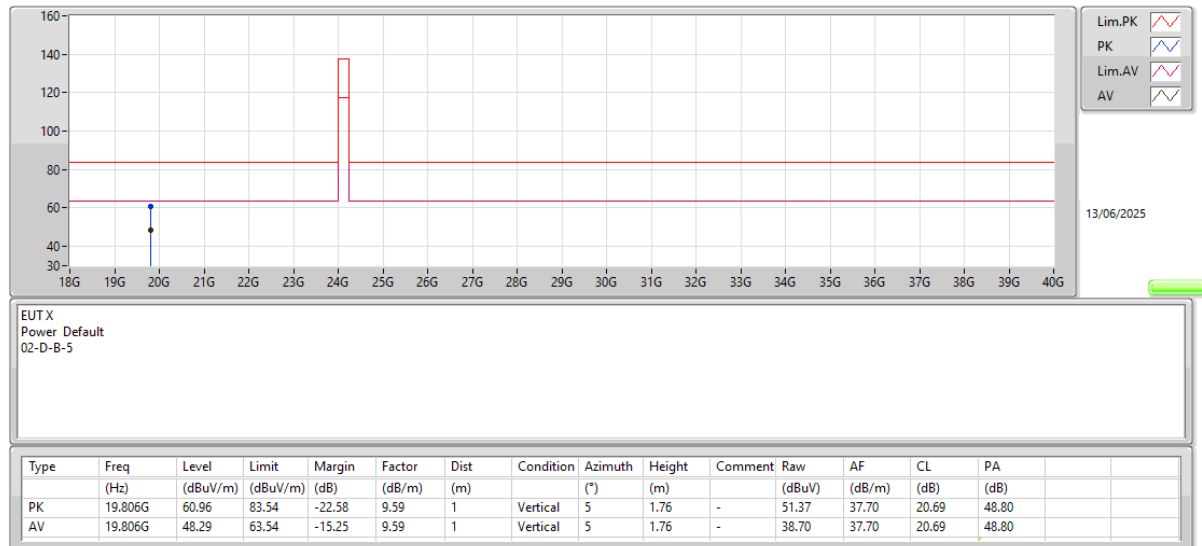
Horizontal

Mode 1



Vertical

Mode 1



Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

2.3.11 Results for Radiated Emissions (40GHz~100GHz)

Test Range	40~60G
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Frequency (MHz)	Emission Freq. (GHz)	Measurement Distance (m)	Read Level (dBm)	Rx Antenna Gain (dBi)	Measurement Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Result
24135	48.250	1	-70.80	23.9	76.23	97.54	-21.31	Peak	Pass
	48.249	1	-71.15	23.9	75.88	77.54	-1.67	Average	Pass

Test Range	60~90G
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Frequency (MHz)	Emission Freq. (GHz)	Measurement Distance (m)	Read Level (dBm)	Rx Antenna Gain (dBi)	Measurement Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Result
24135	72.375	1	-79.03	23.8	71.62	97.54	-25.92	Peak	Pass
	72.374	1	-80.02	23.8	70.63	77.54	-6.91	Average	Pass

Test Range	90~100G
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Frequency (MHz)	Emission Freq. (GHz)	Measurement Distance (m)	Read Level (dBm)	Rx Antenna Gain (dBi)	Measurement Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Result
24135	96.501	1	-75.54	23.6	77.81	97.54	-19.73	Peak	Pass
	96.499	1	-77.47	23.6	75.88	77.54	-1.66	Average	Pass

Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1m]})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

$EIRP = PT * GT = (PR / GR) * (4 * \pi * D / \lambda)^2$

2.4 Band Edge Emissions Measurement

2.4.1 Limit

Band edge emissions radiated outside of the specified frequency bands shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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
Above 960	500	3

2.4.2 Measuring Instruments and Setting

Refer a test equipment and calibration data table in this test report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RBW / VBW	1MHz / 3MHz for Peak, The average is used peak level + correction factor

2.4.3 Test Procedures

The test procedure is the same as section 2.3.3.

2.4.4 Test Setup Layout

This test setup layout is the same as that shown in section 2.3.4

2.4.5 Test Deviation

There is no deviation with the original standard.

2.4.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.



2.4.7 Measurement Results Calculation

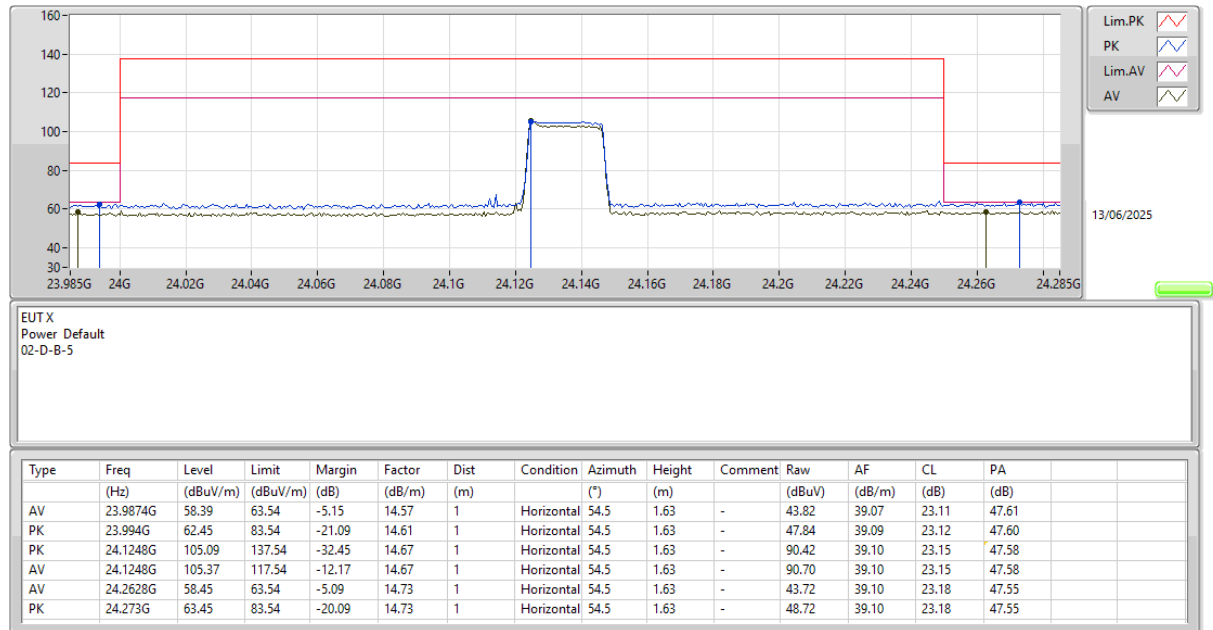
The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

2.4.8 Test Result of Band Edge and Fundamental Emissions

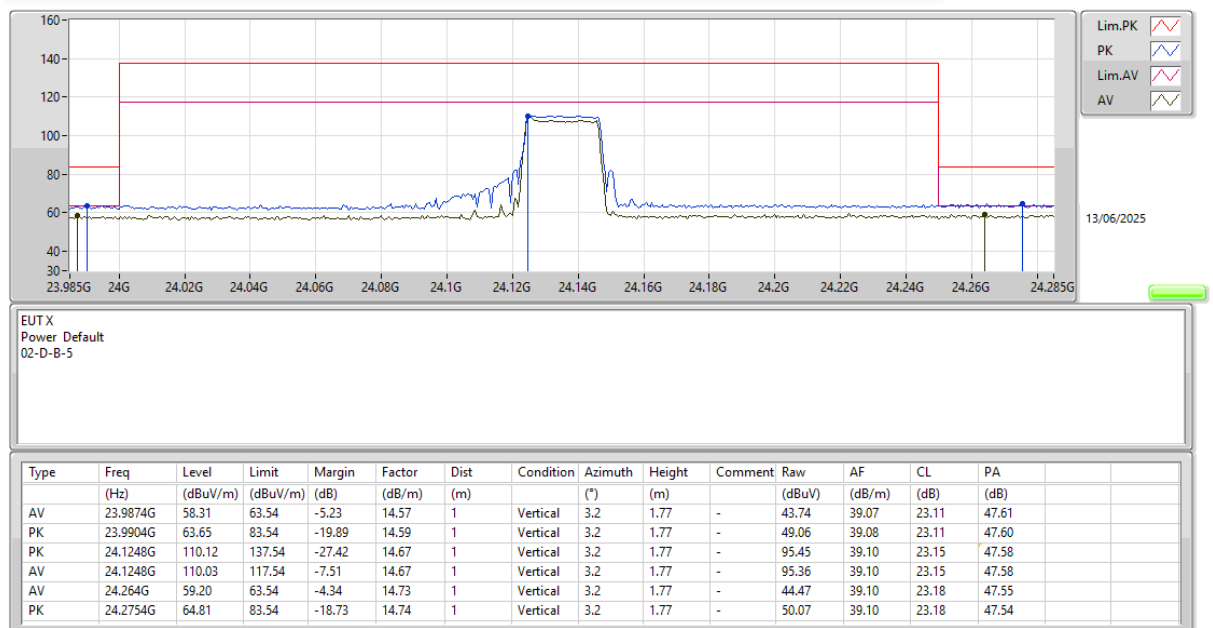
Horizontal

Mode 1



Vertical

Mode 1





2.5 Antenna Requirements

2.5.1 Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.

2.5.2 Antenna Connector Construction

The antenna connector complied with the requirements.

3 List of Measuring Equipments

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 23, 2025	Mar. 22, 2026	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 15, 2025	Apr. 14, 2026	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 23, 2024	Sep. 22, 2025	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jun. 29, 2024	Jun. 28, 2025	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 25, 2024	Nov. 24, 2025	Radiation (03CH02-CB)
Signal Analyzer	R&S	FSV3044	101536	10kHz ~ 44GHz	Aug. 14, 2024	Aug. 13, 2025	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Jun. 20, 2024	Jun. 19, 2025	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Jun. 20, 2024	Jun. 19, 2025	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Apr. 30, 2025	Apr. 29, 2026	Radiation (03CH02-CB)
Band Rejector	MTJ	6G Band Rejector	BRJ-01	1GHz ~ 7.4GHz	Oct. 02, 2024	Oct. 01, 2025	Radiation (03CH02-CB)
Band Rejector	MTJ	6G Band Rejector	BRJ-02	1GHz ~ 8GHz	Oct. 02, 2024	Oct. 01, 2025	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE-EMI	V5.11.8	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH02-CB)
*Harmonic Mixer	R&S	FS-Z60	100114	40GHz~60GHz	Nov. 22, 2024	Nov. 21, 2026	Radiation (03CH02-CB)
*Harmonic Mixer	R&S	FS-Z75	100966	50GHz~75GHz	Nov. 22, 2024	Nov. 21, 2026	Radiation (03CH02-CB)
*Harmonic Mixer	R&S	FS-Z90	102135	60GHz~90GHz	Sep. 13, 2024	Sep. 12, 2026	Radiation (03CH02-CB)
*Harmonic Mixer	R&S	FS-Z140	101160	90GHz~140GHz	Jan. 20, 2025	Jan. 19, 2027	Radiation (03CH02-CB)
Standard Horn Antenna	Custom Microwave	M19RH	U91113-A	40 ~ 60 GHz	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Standard Horn Antenna	Custom Microwave	M15RH	V91113-A	50 ~ 75 GHz	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Standard Horn Antenna	Custom Microwave	M12RH	E91113-A	60 ~ 90 GHz	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Standard Horn Antenna	Custom Microwave	M08RH	F91113-A	90 ~ 140 GHz	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30MHz	Oct. 17, 2024	Oct. 16, 2025	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 02, 2024	Aug. 01, 2025	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMC	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 29, 2024	Jul. 28, 2025	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 02, 2024	Nov. 01, 2025	Radiation (03CH06-CB)
Signal analyzer	R&S	FSV3044	101667	9kHz~44GHz	Aug. 20, 2024	Aug. 19, 2025	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 21, 2024	Oct. 20, 2025	Radiation (03CH06-CB)



RF Cable-low	Woken	RG402	Low Cable-05+68	30MHz~1GHz	Oct. 24, 2024	Oct. 23, 2025	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE-EMI	V5.11.8	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH06-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.



4 Measurement Uncertainty

Test Items	Uncertainty	Remark
Radiated Emission (9kHz ~ 30MHz)	3.8 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (40GHz ~ 60GHz)	3.0 dB	Confidence levels of 95%
Radiated Emission (60GHz ~ 90GHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (90GHz ~ 200GHz)	3.1 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%