



FCC EMI TEST REPORT

FCC ID : 2BHFNHESTIAA3
Equipment : Dongle
Brand Name : APAL
Model Name : Hestia A3
Applicant : Creative5 Inc.
7F, No. 300, Sec. 1, Neihu Rd., Neihu Dist.
Taipei City, 11493, Taiwan
Manufacturer : Creative5 Inc.
7F, No. 300, Sec. 1, Neihu Rd., Neihu Dist.
Taipei City, 11493, Taiwan
Standard : FCC 47 CFR FCC Part 15 Subpart B Class B

The product was received on Oct. 30, 2025 and testing was performed from Dec. 08, 2025 to Dec. 09, 2025. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

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

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issue Date
FC480227-06	01	Initial issue of report	Mar. 18, 2026

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.107	AC Conducted Emission	Pass	-
3.2	15.109	Radiated Emission	Pass	-

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 section "Measurement Uncertainty".

Disclaimer:

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.

Reviewed by: Keven Cheng

Report Producer: Lili Lu



1. General Description

1.1. Product Feature of Equipment Under Test

Product Feature
General Specs Bluetooth, NTN and GNSS.
Antenna Type WWAN: Monopole Antenna GNSS.: Internal Monopole Antenna BLE: Dipole Antenna

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.2. Modification of EUT

No modifications made to the EUT during the testing.

1.3. Test Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. CO05-HY, 03CH06-HY

FCC designation No.: TW1093

1.4. Applicable Standards

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

- ♦ FCC 47 CFR FCC Part 15 Subpart B Class B
- ♦ ANSI C63.4-2014
- ♦ ANSI C63.4a-2017
- ♦ ANSI C63.4a-2017

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

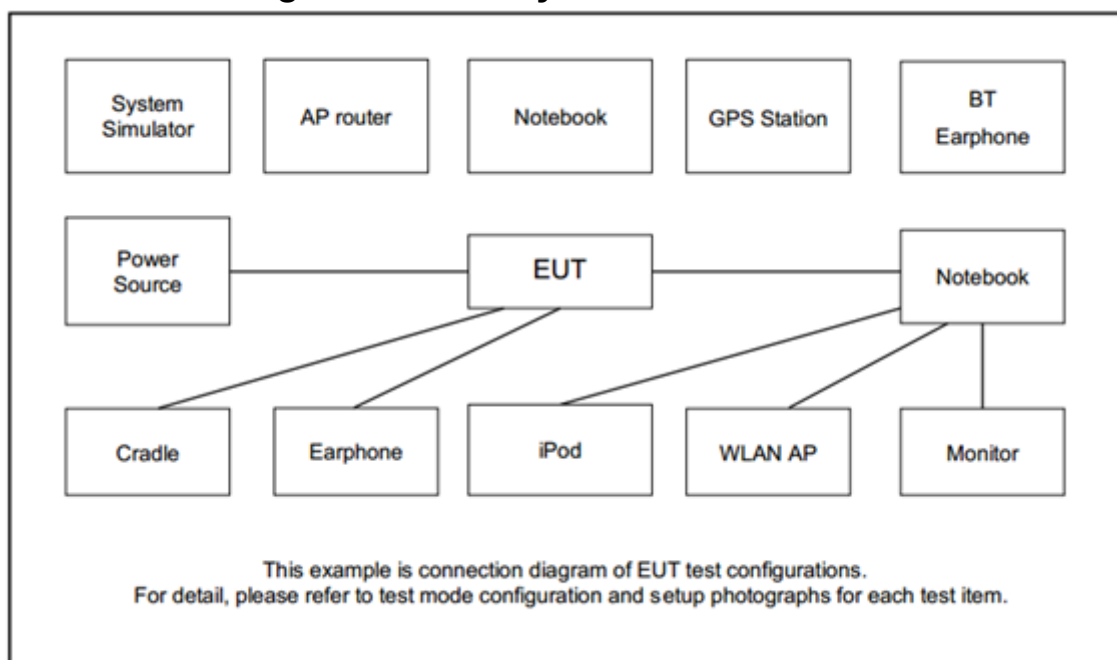
2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT is tested along with the peripherals, operating under possible configurations in compliant with normal operation. The maximum emissions can be identified by a pre-scan carried out in different orientations of placement pursuant to ANSI C63.4-2014. Frequency range covered: Conduction Emission (150 kHz to 30 MHz), Radiation Emission (30 MHz to the 5th harmonics of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Functions Enabled
AC Conducted Emission	Mode 1: Band 255 idle + BLE idle + GPS Rx + Cable with NB
Radiated Emissions	Mode 1: Band 255 idle + BLE idle + GPS Rx + Cable with NB

2.2. Connection Diagram of Test System



2.3. Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8m
2.	Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8m
3.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8m
4.	iPod Earphone	Apple	A1285	DoC	Shielded, 1.0m	N/A
5.	iPod	Apple	A1285	DoC	Shielded, 1.0m	N/A
6.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P : Unshielded, 1.2m DC O/P : Shielded, 1.8m
7.	Notebook	Lenovo	TP00116A	FCC DoC	N/A	AC I/P : Unshielded, 1.2m DC O/P : Shielded, 1.8m
8.	Router	N/A	N/A	N/A	N/A	N/A
9.	Adapter	DVE	DSA-5PFM-05	N/A	N/A	N/A

2.4. EUT Operation Test Setup

At the same time, the EUT is attached to the Bluetooth earphone, and the following programs installed in the EUT are programmed during the test:

1. Execute "VisualGPSce" to make the EUT receive continuous signals from GPS station.
2. NTN Band 255 Idle, maintaining registration with System simulator.

3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1. Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

<Class B>

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

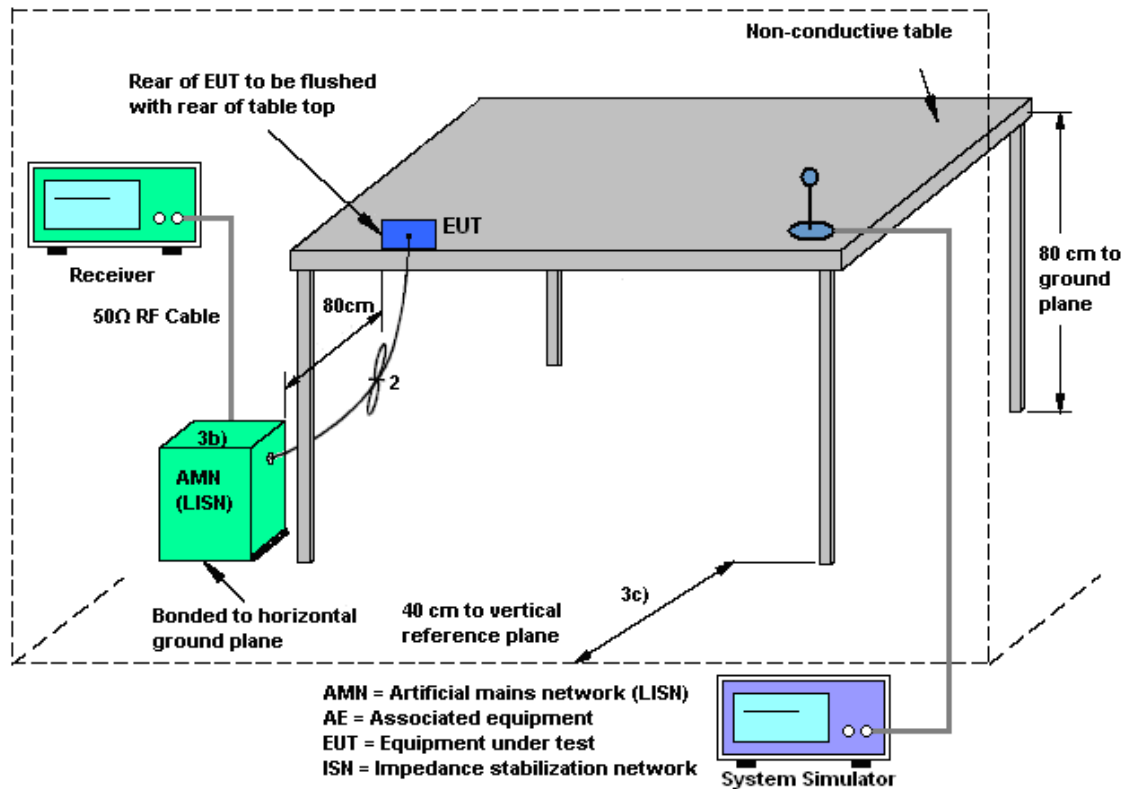
3.1.2. Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3. Test Procedure

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (If Bandwidth = 9 kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

3.1.4. Test Setup



3.1.5. Test Result of AC Conducted Emission

Please refer to Appendix A.

3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

<Class B>

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

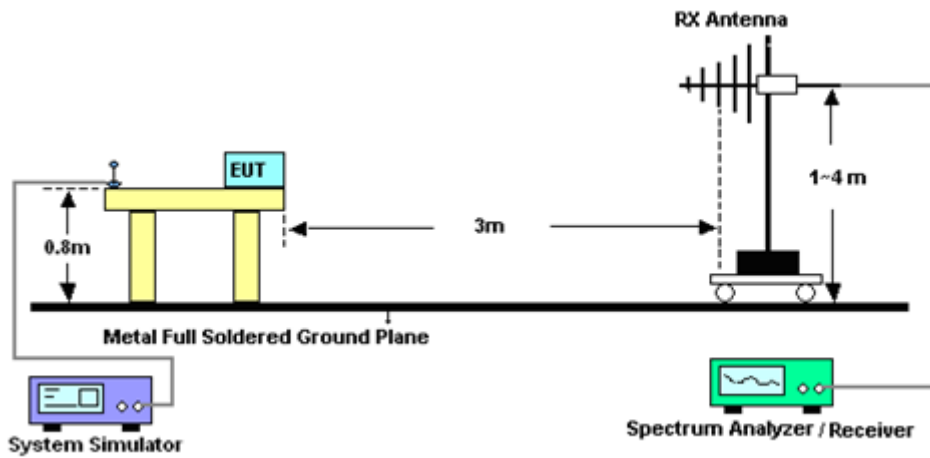
Please refer to the measuring equipment list in this test report.

3.2.3. Test Procedures

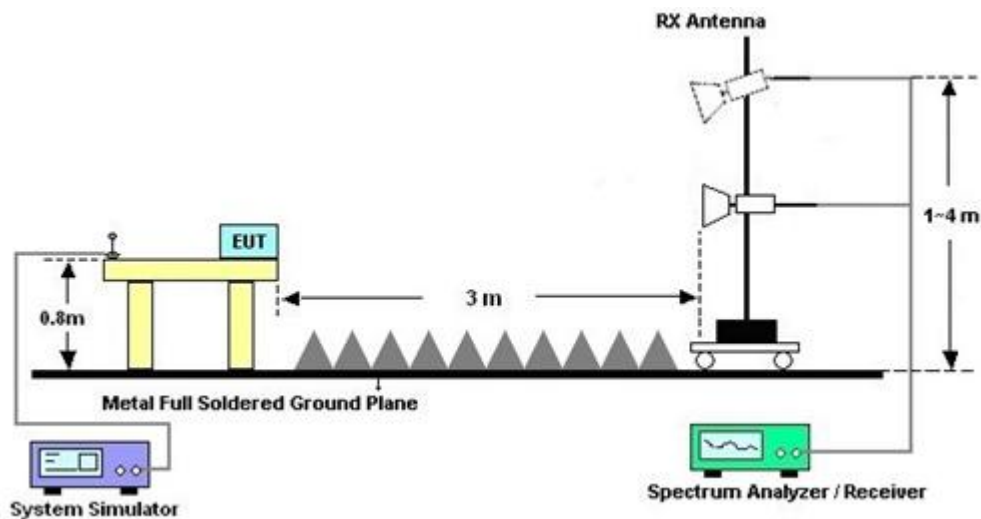
1. The EUT is placed on a turntable with 0.8 meter above ground.
2. The EUT is set 3 meters(30 M~18 G) and 1 meters (18 G~40 G) from the interference receiving antenna, which is mounted on the top of a variable height antenna tower.
3. The table is rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120 kHz/VBW=300 kHz for frequency below 1 GHz; RBW=1 MHz VBW=3 MHz (Peak), RBW=1 MHz/VBW=10 Hz (Average) for frequency above 1 GHz).
7. If the emission level of the EUT in peak mode is 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.

3.2.4. Test Setup of Radiated Emission

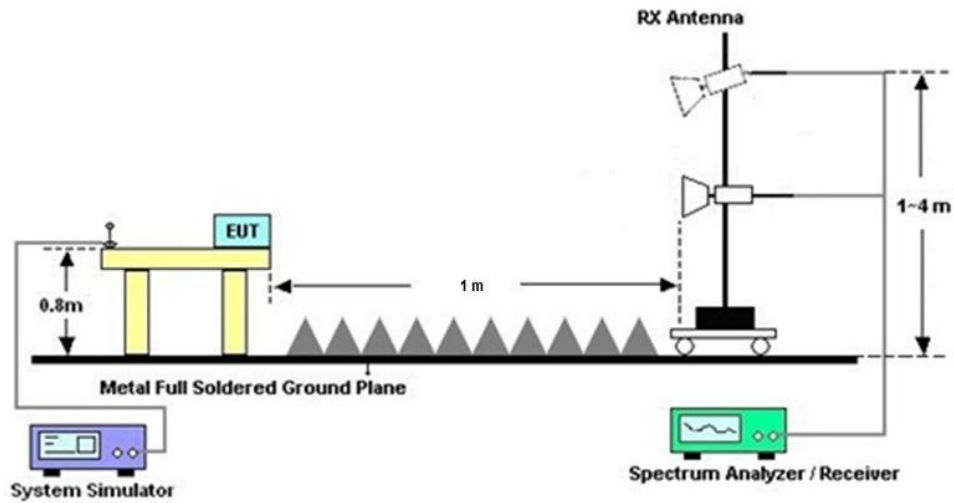
For Radiated Emissions from 30 MHz to 1 GHz



For Radiated Emissions from 1GHz to 18GHz



For Radiated Emissions above 18GHz



3.2.5. Test Result of Radiated Emission

Please refer to Appendix B.



4. List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Amplifier	SONOMA	310N	186713	9kHz~1GHz	Apr. 15, 2025	Dec. 08, 2025	Apr. 14, 2026	Radiation (03CH06-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 04, 2025	Dec. 08, 2025	Oct. 03, 2026	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Jan. 23, 2025	Dec. 08, 2025	Jan. 22, 2026	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02037	1GHz~18GHz	Dec. 20, 2024	Dec. 08, 2025	Dec. 19, 2025	Radiation (03CH06-HY)
Preamplifier	E-INSTRUMENT TECH LTD.	ERA-100M-18G-56-01-A70	EC1900270	1GHz-18GHz	Dec. 04, 2025	Dec. 08, 2025	Dec. 03, 2026	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SF104 SF102_2000mm SF102_3000mm SF102_7000mm	802433/4 532421/2 532422/2 532299/2	30MHz to 18GHz	Jul. 01, 2025	Dec. 08, 2025	Jun. 30, 2026	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SF102_2000mm SF102_3000mm SF102_7000mm	532421/2 532422/2 532299/2	30MHz to 40GHz	Jul. 01, 2025	Dec. 08, 2025	Jun. 30, 2026	Radiation (03CH06-HY)
Hygrometer	TECPEL	DTM-303B	TP210018	N/A	Oct. 15, 2025	Dec. 08, 2025	Oct. 14, 2026	Radiation (03CH06-HY)
Controller	INN-CO	EM1000	060782	Control Turn table & Ant Mast	N/A	Dec. 08, 2025	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1m~4m	N/A	Dec. 08, 2025	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0-360 degree	N/A	Dec. 08, 2025	N/A	Radiation (03CH06-HY)
Software	Audix	E3	N/A	N/A	N/A	Dec. 08, 2025	N/A	Radiation (03CH06-HY)
Signal Analyzer	R&S	FSV3044	101103	N/A	Jan. 22, 2025	Dec. 08, 2025	Jan. 21, 2026	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00991	18~40GHz	May. 29, 2025	Dec. 08, 2025	May. 28, 2026	Radiation (03CH06-HY)
Preamplifier	EMEC	EM18G40G	0600789	18~40GHz	Aug. 08, 2025	Dec. 08, 2025	Aug. 07, 2026	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 23, 2025	Dec. 08, 2025	Apr. 22, 2026	Radiation (03CH06-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Dec. 09, 2025	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	N/A	Oct. 21, 2025	Dec. 09, 2025	Oct. 20, 2026	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP210031	N/A	Jun. 26, 2025	Dec. 09, 2025	Jun. 25, 2026	Conduction (CO05-HY)
Two-Line V-Network	Rohde & Schwarz	ENV216	100080	N/A	Sep. 09, 2025	Dec. 09, 2025	Sep. 08, 2026	Conduction (CO05-HY)
Two-Line V-Network	Rohde & Schwarz	ENV216	100081	N/A	Jul. 25, 2025	Dec. 09, 2025	Jul. 24, 2026	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Dec. 09, 2025	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Jul. 29, 2025	Dec. 09, 2025	Jul. 28, 2026	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	MQT24082501	N/A	Oct. 14, 2025	Dec. 09, 2025	Oct. 13, 2026	Conduction (CO05-HY)

5. Measurement Uncertainty

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.9 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.3 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.5 dB
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Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.4 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0 dB
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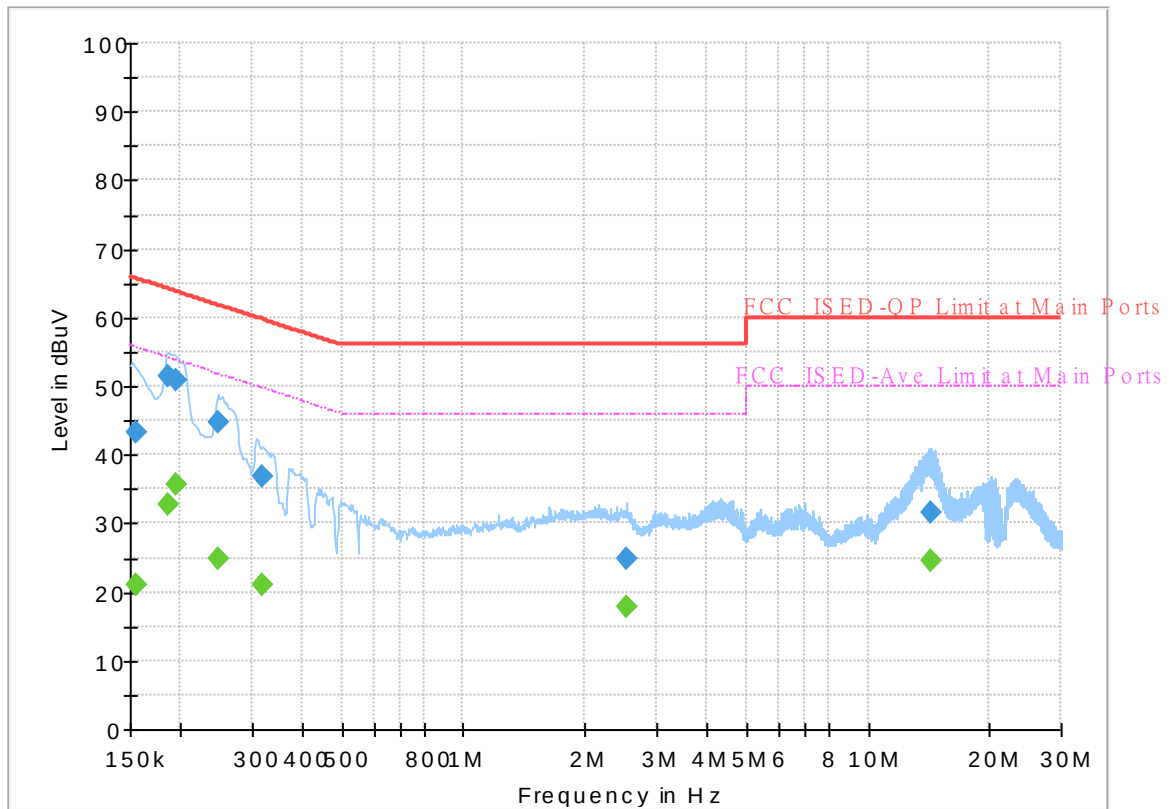
Appendix A. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	Temperature :	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO : 480227-06
 Test Mode : Mode 1
 Test Voltage : Power From System
 Phase : Line

Full Spectrum

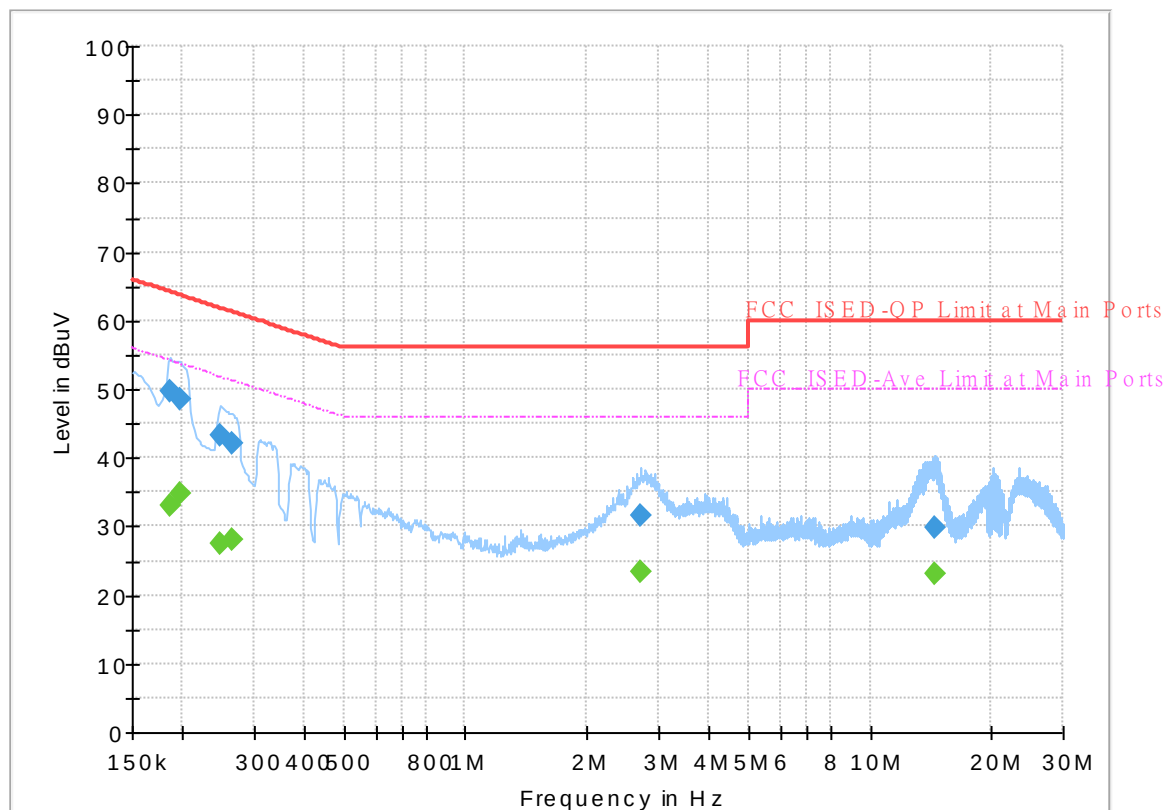
**Final Result**

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154500	---	21.15	55.75	34.60	L1	OFF	19.8
0.154500	43.15	---	65.75	22.60	L1	OFF	19.8
0.186000	---	32.81	54.21	21.40	L1	OFF	19.8
0.186000	51.50	---	64.21	12.71	L1	OFF	19.8
0.195000	---	35.59	53.82	18.23	L1	OFF	19.8
0.195000	50.90	---	63.82	12.92	L1	OFF	19.8
0.246750	---	24.95	51.87	26.92	L1	OFF	19.8
0.246750	44.65	---	61.87	17.22	L1	OFF	19.8
0.318750	---	21.17	49.74	28.57	L1	OFF	19.8
0.318750	36.77	---	59.74	22.97	L1	OFF	19.8
2.530500	---	17.96	46.00	28.04	L1	OFF	19.8
2.530500	24.77	---	56.00	31.23	L1	OFF	19.8
14.275500	---	24.68	50.00	25.32	L1	OFF	20.2
14.275500	31.56	---	60.00	28.44	L1	OFF	20.2

EUT Information

Report NO : 480227-06
Test Mode : Mode 1
Test Voltage : Power From System
Phase : Neutral

Full Spectrum

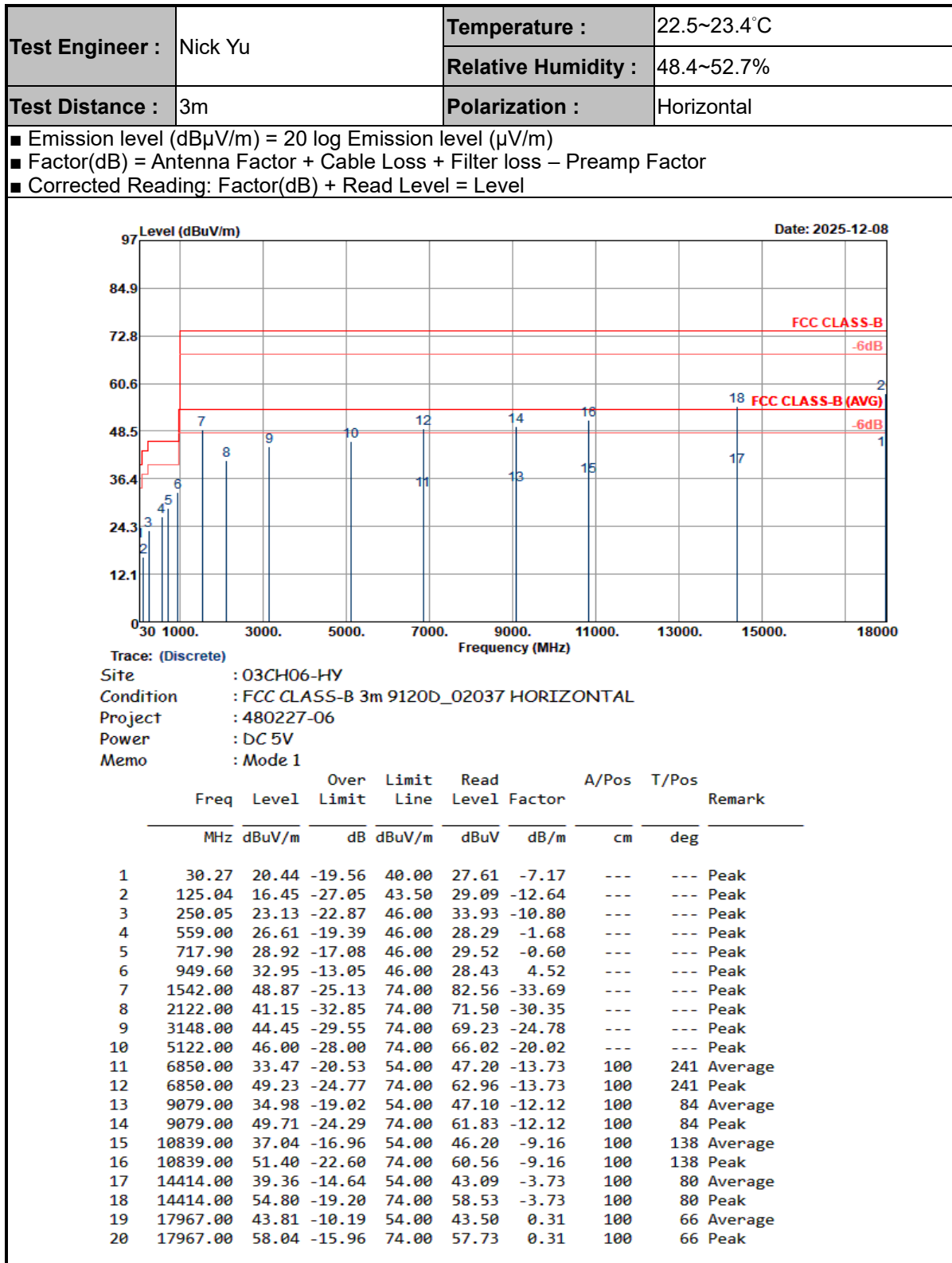


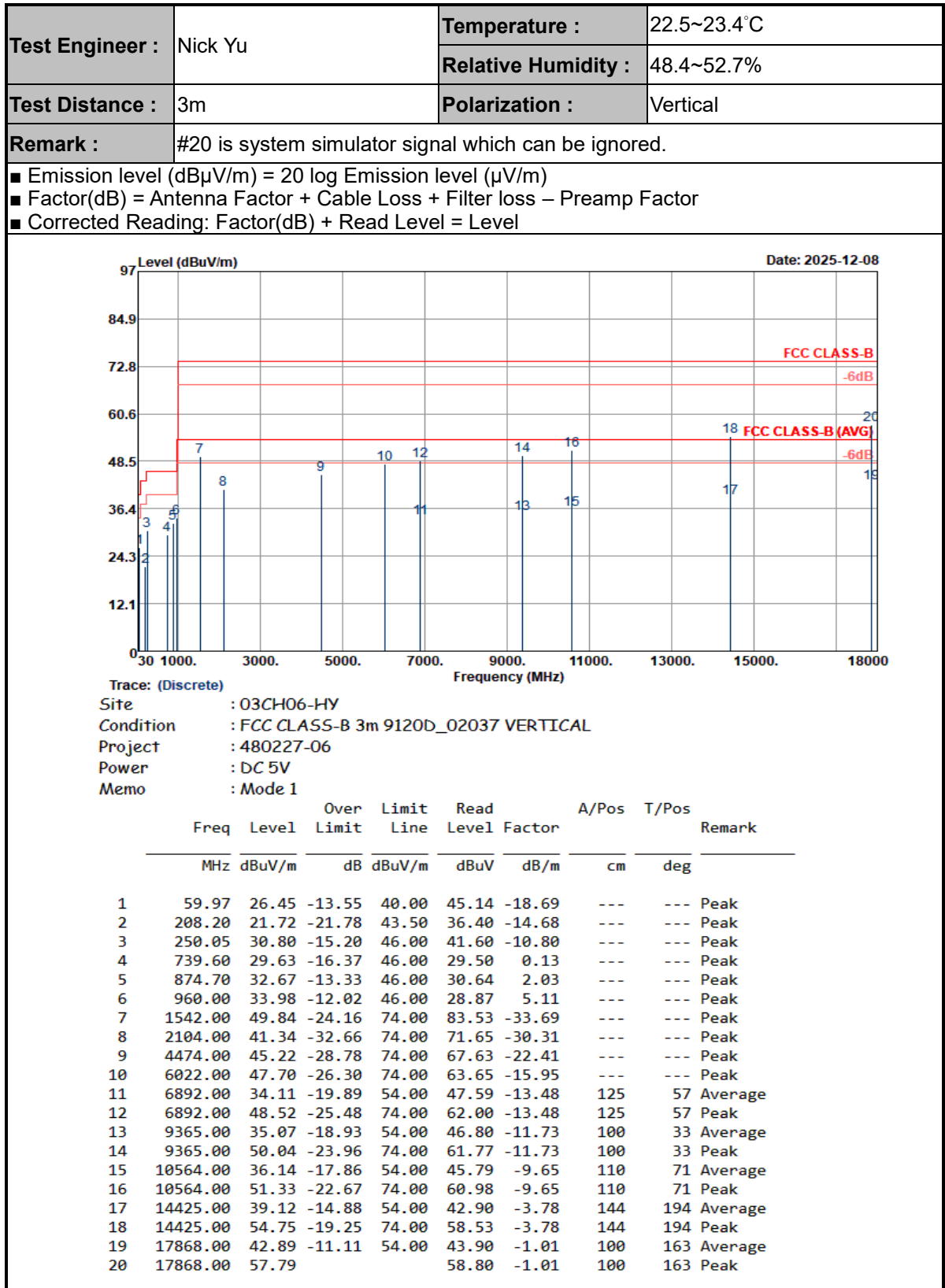
Final Result

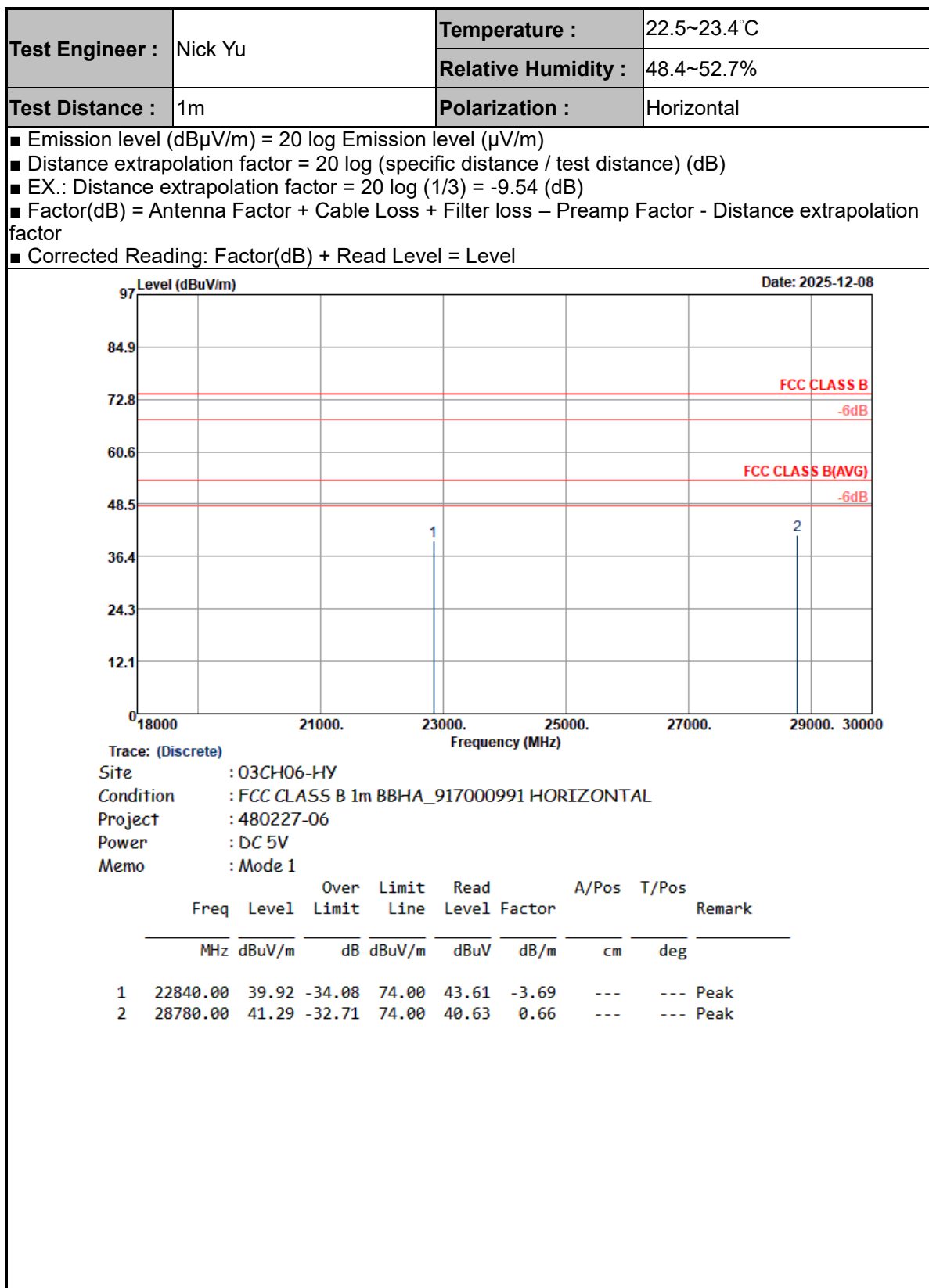
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.186000	---	32.94	54.21	21.27	N	OFF	19.8
0.186000	49.81	---	64.21	14.40	N	OFF	19.8
0.197250	---	34.91	53.73	18.82	N	OFF	19.8
0.197250	48.61	---	63.73	15.12	N	OFF	19.8
0.249000	---	27.53	51.79	24.26	N	OFF	19.8
0.249000	43.26	---	61.79	18.53	N	OFF	19.8
0.264750	---	28.01	51.28	23.27	N	OFF	19.8
0.264750	42.01	---	61.28	19.27	N	OFF	19.8
2.717250	---	23.33	46.00	22.67	N	OFF	19.8
2.717250	31.60	---	56.00	24.40	N	OFF	19.8
14.498250	---	23.19	50.00	26.81	N	OFF	20.2
14.498250	29.69	---	60.00	30.31	N	OFF	20.2



Appendix B. Radiated Emission Test Result



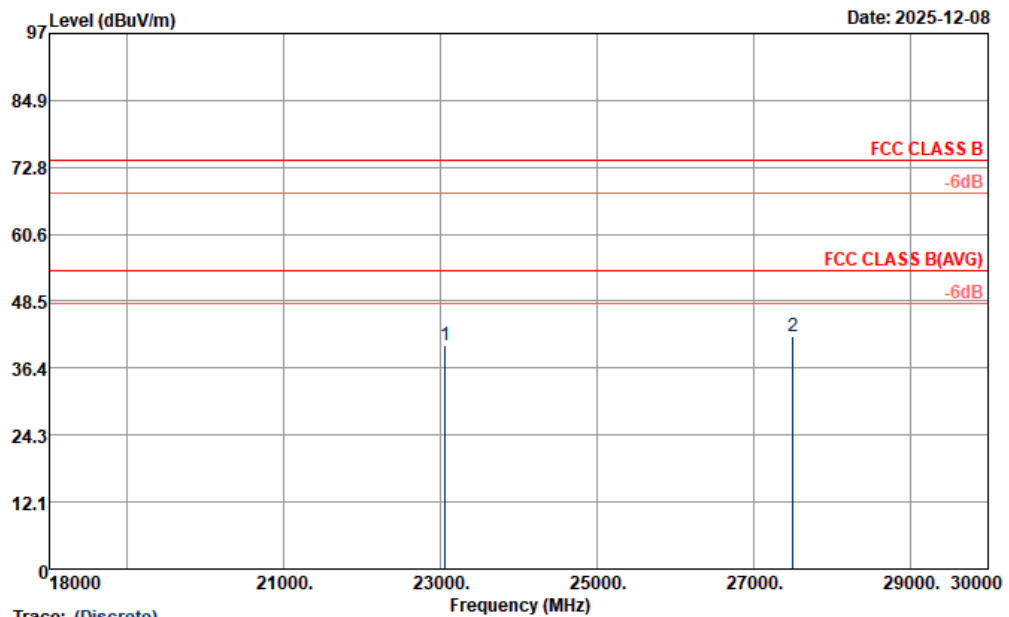






Test Engineer :	Nick Yu	Temperature :	22.5~23.4°C
		Relative Humidity :	48.4~52.7%
Test Distance :	1m	Polarization :	Vertical

- Emission level (dBμV/m) = 20 log Emission level (μV/m)
- Distance extrapolation factor = 20 log (specific distance / test distance) (dB)
- EX.: Distance extrapolation factor = 20 log (1/3) = -9.54 (dB)
- Factor(dB) = Antenna Factor + Cable Loss + Filter loss – Preamp Factor - Distance extrapolation factor
- Corrected Reading: Factor(dB) + Read Level = Level



Trace: (Discrete)

Site : 03CH06-HY
Condition : FCC CLASS B 1m BBHA_917000991 VERTICAL
Project : 480227-06
Power : DC 5V
Memo : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	cm	deg	
1	23060.00	40.47	-33.53	74.00	43.41	-2.94	---	---	Peak
2	27504.00	42.23	-31.77	74.00	40.87	1.36	---	---	Peak