



# FCC EMI TEST REPORT

**FCC ID** : 2A7DJ-2346766867652  
**Equipment** : Smart Radio LTE with Walkie-Talkie  
**Brand Name** : weavix  
**Model Name** : walt  
**Applicant** : PK Solutions LLC  
10811 E Harry St. Wichita, KS 67207, USA  
**Manufacturer** : Arima Communications (Jiangsu) Co., Ltd  
No.168, Jiaotong North Road, Economic and Technological Development Zone, Wujiang District Suzhou City, Jiangsu Province, P.R.China  
**Standard** : FCC 47 CFR FCC Part 15 Subpart B Class B

The product was received on Jul. 15, 2022 and testing was performed from Jul. 22, 2022 to Sep. 29, 2022. 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.

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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### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.107	AC Conducted Emission	Pass	7.43 dB under the limit at 0.596 MHz
3.2	15.109	Radiated Emission	Pass	1.19 dB under the limit at 68.070 MHz for Quasi-Peak

**Declaration of Conformity:**

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.  
It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".

**Comments and Explanations:**

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Avis Chuang**

**Report Producer: Doris**



# 1. General Description

## 1.1. Product Specification of Equipment Under Test

LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac, Wi-Fi 5GHz 802.11a/n/ac, NFC, and GNSS.

Product Feature	
Antenna Type	WWAN: PIFA Antenna WLAN: Loop Antenna Bluetooth: Loop Antenna GPS / Glonass / BDS / Galileo: PIFA Antenna NFC: Loop Antenna
HW Version	0910MB-003
SW Version	2.A.0025

**Remark:** The EUT's information above is declared by manufacturer. Please refer to Comments and Explanations 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.	<b>Sporton Site No.</b> 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

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

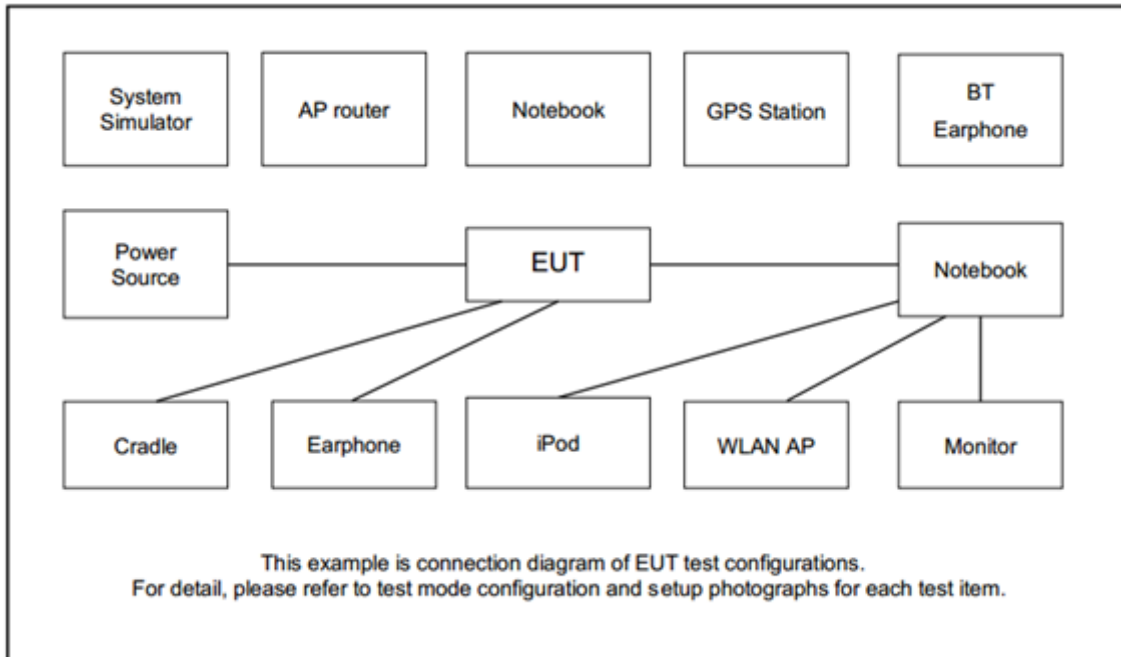
## 2. Test Configuration of Equipment Under Test

### 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 5<sup>th</sup> harmonics of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Functions Enabled
<b>AC Conducted Emission</b>	Mode 1 : LTE Band 5 Idle + Bluetooth Link + WLAN (2.4GHz) Link + camera + Battery + NFC on + USB Cable (Charging from AC Adapter) + SIM 1 Mode 2 : LTE Band 12 Idle + Bluetooth Link + WLAN (2.4GHz) Link + GPS Rx + Battery + NFC on + USB Cable (Charging from AC Adapter) + SIM 1 Mode 3 : LTE Band 13 Idle + Bluetooth Idle + WLAN (5GHz) Link + MPEG4 (color bar) + Battery + NFC on + USB Cable (Charging from AC Adapter) + SIM 1 Mode 4 : LTE Band 14 Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + Battery + NFC on + USB cable (Data Link with Notebook) + SIM 1 Mode 5 : LTE Band 5 Idle + Bluetooth Idle + WLAN (2.4GHz) Link + H-pattern + Battery + NFC on + Earphone + USB Cable (Charging from AC Adapter) + SIM 2 Mode 6 : LTE Band 26 Idle + Bluetooth Idle + WLAN (5GHz) Idle + Walkie talkie + NFC on + USB Cable (Charging from AC Adapter) + SIM 1
<b>Radiated Emissions</b>	Mode 1 : LTE Band 5 Idle + Bluetooth Link + WLAN (2.4GHz) Link + camera + Battery + NFC on + USB Cable (Charging from AC Adapter) + SIM 1 Mode 2 : LTE Band 12 Idle + Bluetooth Link + WLAN (2.4GHz) Link + GPS Rx + Battery + NFC on + USB Cable (Charging from AC Adapter) + SIM 1 Mode 3 : LTE Band 13 Idle + Bluetooth Idle + WLAN (5GHz) Link + MPEG4 (color bar) + Battery + NFC on + USB Cable (Charging from AC Adapter) + SIM 1 Mode 4 : LTE Band 14 Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + USB Data Link + Battery + NFC on + USB cable (Data Link with Notebook) + SIM 1 Mode 5 : LTE Band 13 Idle + Bluetooth Idle + WLAN (2.4GHz) Link + H-pattern + Battery + NFC on + Earphone + USB Cable (Charging from AC Adapter) + SIM 2 Mode 6 : LTE Band 26 Idle + Bluetooth Idle + WLAN (5GHz) Idle + Walkie talkie + NFC on + SIM 1
<b>Remark:</b> 1. The worst case of AC is mode 5; only the test data of this mode was reported. 2. The worst case of RE is mode 4; only the test data of this mode was reported. 3. For Radiation Emission after pre-scanned the cellular band between 30MHz ~ 960MHz (LTE Band 5/12/13/14/26); only the worst case for cellular band test data of this mode was reported. 4. Data Link with Notebook means data application transferred mode between EUT and Notebook.	

## 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	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
4.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
5.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
6.	SD Card	SAMSUNG	MicroSD HC	FCC DoC	N/A	N/A
7.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
8.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A
9.	iPod	Apple	A1285	FCC DoC	Unshielded, 1.0 m	N/A



## **2.4. EUT Operation Test Setup**

For associated equipment, the programs, "EMCTest.exe" installed in notebook, which generated a complete line of repeating "H" pattern, were used as the test software. The programs were executed as follows:

- a. Turn on the power of all equipment.
- b. The notebook reads the test program from the hard disk drive and runs it.
- c. The notebook sends "H" messages to the panel, and "H" patterns are displayed on the screen.
- d. The notebook sends "H" messages to the internal hard disk, and the messages are read by the hard disk and written in it.
- e. Repeat the steps from b to d.

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

1. Data application is transferred between Notebook and EUT via USB cable.
2. Turn on camera to capture images.
3. Execute "H Pattern" to show H Patterns via HDMI Cable on the Monitor.
4. EUT links with Notebook and executes ping via WiFi function.
5. Execute "GPS Test" to make the EUT receive continuous signals from GPS station.
6. Execute "Color Bar" to play MPEG4 files.
7. Execute "H Pattern" to show H Patterns via HDMI Cable on the Monitor.

### 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.

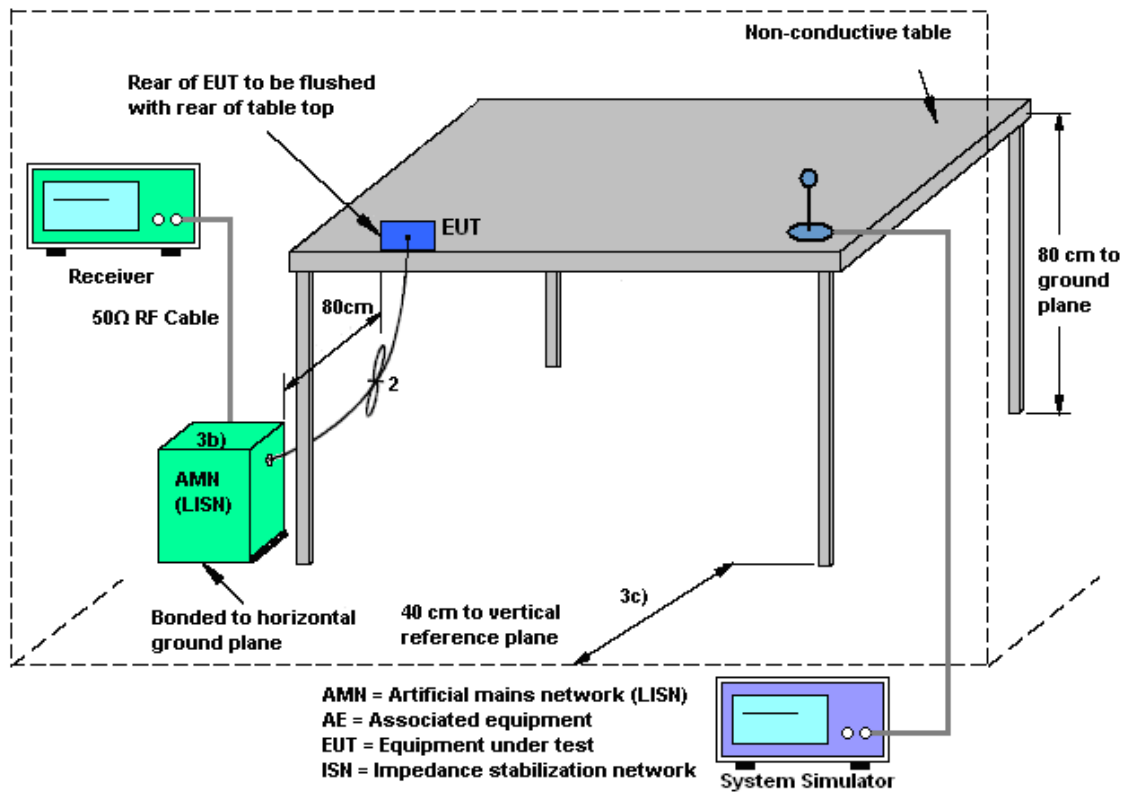
##### 3.1.2. Measuring Instruments

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

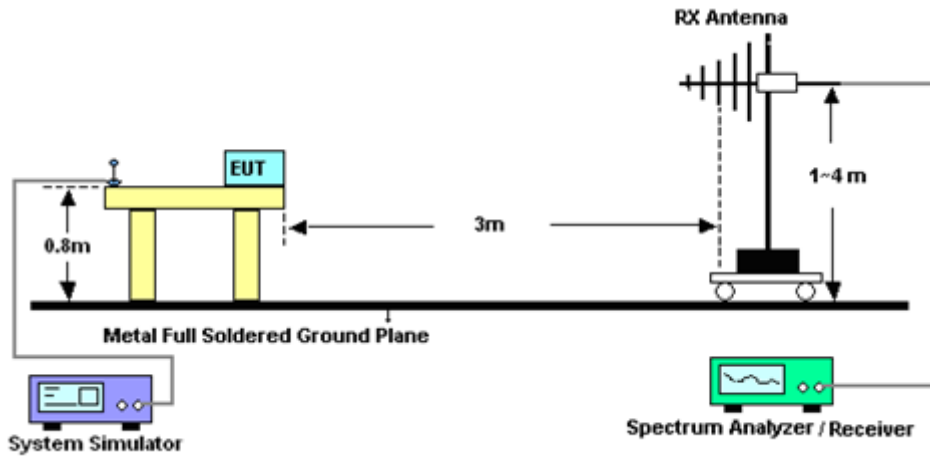
Please refer to the measuring equipment list in this test report.

#### 3.2.3. Test Procedures

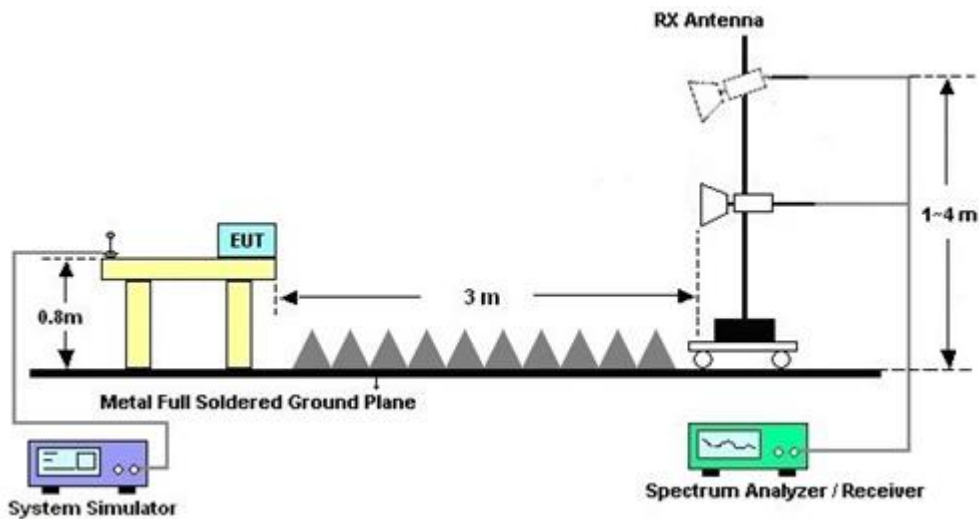
1. The EUT is placed on a turntable with 0.8 meter above ground.
2. The EUT is set 3 meters from the interference receiving antenna, which is mounted on the top of a variable height antenna tower.
3. The table is rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is 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.
8. Emission level (dBµV/m) = 20 log Emission level (µV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

### 3.2.4. Test Setup of Radiated Emission

For Radiated Emissions from 30 MHz to 1 GHz



For Radiated Emissions above 1 GHz



### 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
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jul. 22, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2021	Jul. 22, 2022	Nov. 30, 2022	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2021	Jul. 22, 2022	Nov. 16, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 03, 2021	Jul. 22, 2022	Dec. 02, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 16, 2021	Jul. 22, 2022	Nov. 15, 2022	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Jul. 22, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	00691	N/A	Jul. 28, 2021	Jul. 22, 2022	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	Jul. 22, 2022	Dec. 29, 2022	Conduction (CO05-HY)
Amplifier	SONOMA	310N	186713	9kHz~1GHz	Apr. 28, 2022	Jul. 27, 2022~ Sep. 29, 2022	Apr. 27, 2023	Radiation (03CH06-HY)
Bilog Antenna	Schaffner	CBL 6111C & N-6-06	2725 & AT-N0601	30MHz~1GHz	Nov. 11, 2021	Jul. 27, 2022~ Sep. 29, 2022	Nov. 10, 2022	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Feb. 09, 2022	Jul. 27, 2022~ Sep. 29, 2022	Feb. 08, 2023	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1156	1GHz~18GHz	Sep. 27, 2021	Jul. 27, 2022~ Aug. 01, 2022	Sep. 26, 2022	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02037	1GHz~18GHz	Dec. 20, 2021	Aug. 02, 2022~ Sep. 29, 2022	Dec. 19, 2022	Radiation (03CH06-HY)
Preamplifier	Jet-Power	JPA00101800-30-10P	1601180001	1GHz~18GHz	Jul. 18, 2022	Jul. 27, 2022~ Sep. 29, 2022	Jul. 17, 2023	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SF102_7000m	532299/2	30MHz to 40GHz	Jul. 04, 2022	Jul. 27, 2022~ Sep. 29, 2022	Jul. 03, 2023	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SF102_3000m	532422/2	30MHz to 40GHz	Jul. 04, 2022	Jul. 27, 2022~ Sep. 29, 2022	Jul. 03, 2023	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SF102_2000m	532421/2	30MHz to 40GHz	Jul. 04, 2022	Jul. 27, 2022~ Sep. 29, 2022	Jul. 03, 2023	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SF104	802433/4	30Mhz to 18Ghz	Aug. 19, 2021	Jul. 27, 2022~ Aug. 17, 2022	Aug. 18, 2022	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SF104	802433/4	30Mhz to 18Ghz	Aug. 18, 2022	Aug. 18, 2022~ Sep. 29, 2022	Aug. 17, 2023	Radiation (03CH06-HY)
Controller	INN-CO	EM1000	060782	Control Turn table & Ant Mast	N/A	Jul. 27, 2022~ Sep. 29, 2022	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1m~4m	N/A	Jul. 27, 2022~ Sep. 29, 2022	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0-360 degree	N/A	Jul. 27, 2022~ Sep. 29, 2022	N/A	Radiation (03CH06-HY)
Software	Audix	E3 6.2009-8-24(k5)	N/A	N/A	N/A	Jul. 27, 2022~ Sep. 29, 2022	N/A	Radiation (03CH06-HY)
Signal Analyzer	R&S	FSV3044	101103	N/A	Jan. 25, 2022	Jul. 27, 2022~ Sep. 29, 2022	Jan. 24, 2023	Radiation (03CH06-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170251	18~40GHz	Nov. 30, 2021	Jul. 27, 2022~ Sep. 29, 2022	Nov. 29, 2022	Radiation (03CH06-HY)
Preamplifier	EMEC	EM18G40G	0600789	18~40GHz	Jul. 21, 2022	Jul. 27, 2022~ Sep. 29, 2022	Jul. 20, 2023	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 14, 2022	Jul. 27, 2022~ Sep. 29, 2022	Apr. 13, 2023	Radiation (03CH06-HY)



## 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.1 dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.2 dB
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.4 dB
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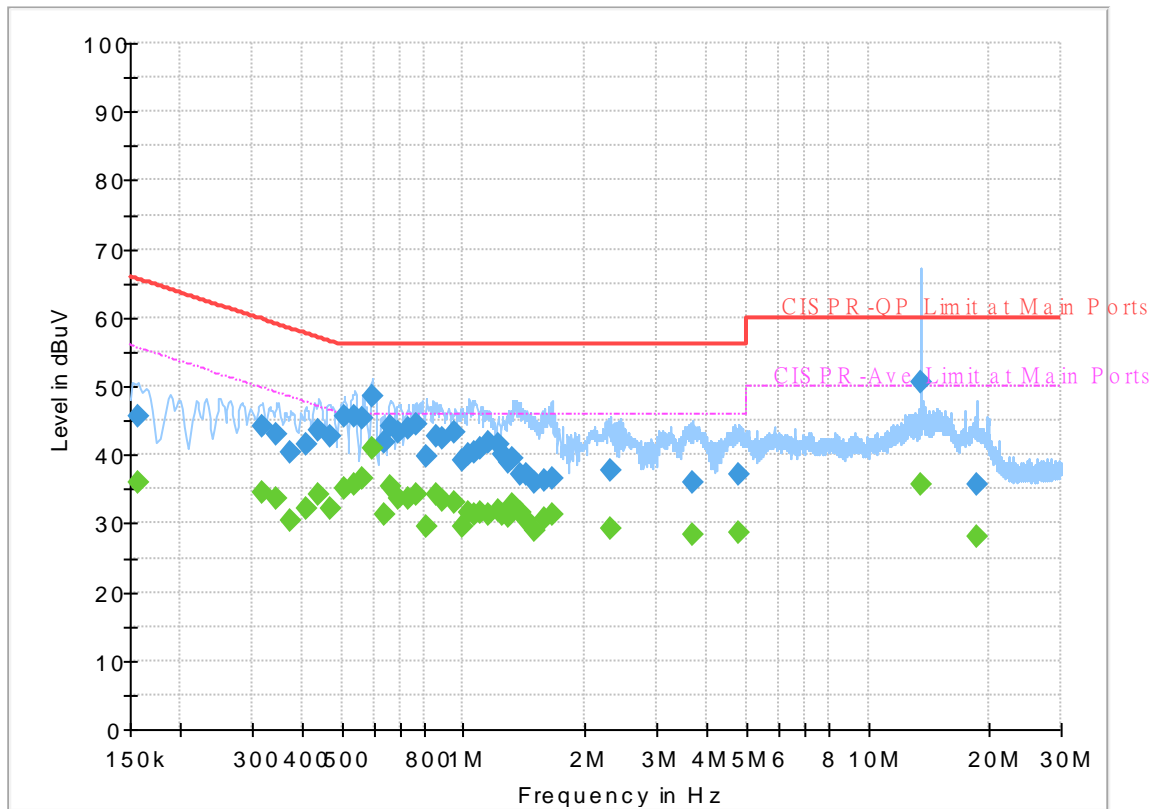
## Appendix A. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	Temperature :	23~26°C
		Relative Humidity :	45~55%

# EUT Information

Report NO : 261611  
 Test Mode : Mode 5  
 Test Voltage : 120Vac/60Hz  
 Phase : Line

Full Spectrum



## Final\_Result

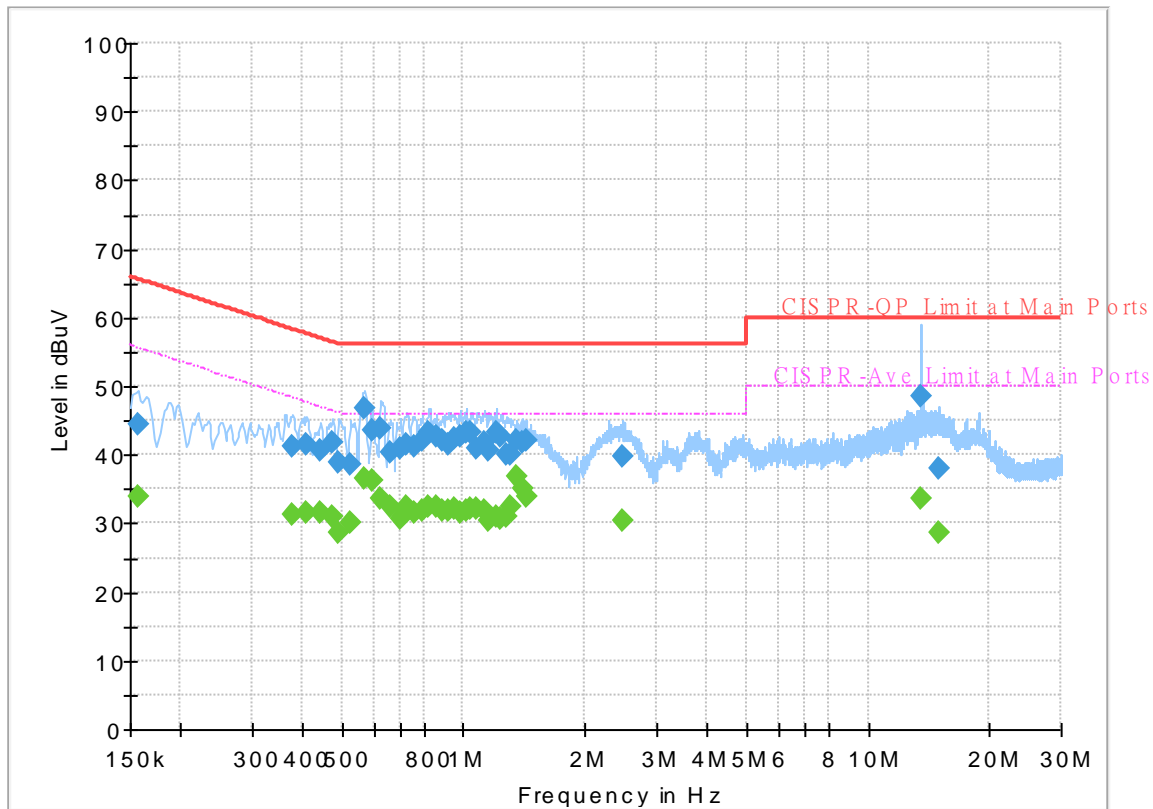
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.156750	45.76	---	65.63	19.87	L1	OFF	19.6
0.156750	---	35.82	55.63	19.81	L1	OFF	19.6
0.318750	44.06	---	59.74	15.68	L1	OFF	19.6
0.318750	---	34.61	49.74	15.13	L1	OFF	19.6
0.345750	42.98	---	59.06	16.08	L1	OFF	19.6
0.345750	---	33.75	49.06	15.31	L1	OFF	19.6
0.375000	40.44	---	58.39	17.95	L1	OFF	19.6
0.375000	---	30.50	48.39	17.89	L1	OFF	19.6
0.408750	41.62	---	57.67	16.05	L1	OFF	19.6
0.408750	---	32.24	47.67	15.43	L1	OFF	19.6
0.440250	43.45	---	57.06	13.61	L1	OFF	19.6
0.440250	---	34.17	47.06	12.89	L1	OFF	19.6
0.467250	42.67	---	56.56	13.89	L1	OFF	19.6
0.467250	---	32.23	46.56	14.33	L1	OFF	19.6
0.507750	45.67	---	56.00	10.33	L1	OFF	19.6
0.507750	---	34.99	46.00	11.01	L1	OFF	19.6
0.537000	45.65	---	56.00	10.35	L1	OFF	19.6
0.537000	---	35.77	46.00	10.23	L1	OFF	19.6
0.564000	45.23	---	56.00	10.77	L1	OFF	19.6
0.564000	---	36.62	46.00	9.38	L1	OFF	19.6
0.595500	48.57	---	56.00	7.43	L1	OFF	19.6

0.595500	---	41.02	46.00	4.98	L1	OFF	19.6
0.636000	41.89	---	56.00	14.11	L1	OFF	19.6
0.636000	---	31.34	46.00	14.66	L1	OFF	19.6
0.656250	44.08	---	56.00	11.92	L1	OFF	19.6
0.656250	---	35.46	46.00	10.54	L1	OFF	19.6
0.690000	43.31	---	56.00	12.69	L1	OFF	19.6
0.690000	---	33.64	46.00	12.36	L1	OFF	19.6
0.730500	43.98	---	56.00	12.02	L1	OFF	19.6
0.730500	---	33.50	46.00	12.50	L1	OFF	19.6
0.762000	44.53	---	56.00	11.47	L1	OFF	19.6
0.762000	---	34.13	46.00	11.87	L1	OFF	19.6
0.809250	39.90	---	56.00	16.10	L1	OFF	19.6
0.809250	---	29.50	46.00	16.50	L1	OFF	19.6
0.854250	42.69	---	56.00	13.31	L1	OFF	19.6
0.854250	---	34.08	46.00	11.92	L1	OFF	19.6
0.890250	42.51	---	56.00	13.49	L1	OFF	19.6
0.890250	---	33.27	46.00	12.73	L1	OFF	19.6
0.953250	43.26	---	56.00	12.74	L1	OFF	19.6
0.953250	---	33.07	46.00	12.93	L1	OFF	19.6
0.996000	39.20	---	56.00	16.80	L1	OFF	19.6
0.996000	---	29.66	46.00	16.34	L1	OFF	19.6
1.032000	40.11	---	56.00	15.89	L1	OFF	19.7
1.032000	---	31.54	46.00	14.46	L1	OFF	19.7
1.068000	40.44	---	56.00	15.56	L1	OFF	19.7
1.068000	---	31.37	46.00	14.63	L1	OFF	19.7
1.106250	40.88	---	56.00	15.12	L1	OFF	19.7
1.106250	---	31.61	46.00	14.39	L1	OFF	19.7
1.158000	41.84	---	56.00	14.16	L1	OFF	19.7
1.158000	---	31.39	46.00	14.61	L1	OFF	19.7
1.216500	41.41	---	56.00	14.59	L1	OFF	19.7
1.216500	---	31.92	46.00	14.08	L1	OFF	19.7
1.245750	40.13	---	56.00	15.87	L1	OFF	19.7
1.245750	---	31.31	46.00	14.69	L1	OFF	19.7
1.288500	38.94	---	56.00	17.06	L1	OFF	19.7
1.288500	---	31.13	46.00	14.87	L1	OFF	19.7
1.320000	39.36	---	56.00	16.64	L1	OFF	19.7
1.320000	---	32.63	46.00	13.37	L1	OFF	19.7
1.378500	37.05	---	56.00	18.95	L1	OFF	19.7
1.378500	---	31.56	46.00	14.44	L1	OFF	19.7
1.439250	37.12	---	56.00	18.88	L1	OFF	19.7
1.439250	---	30.29	46.00	15.71	L1	OFF	19.7
1.497750	36.03	---	56.00	19.97	L1	OFF	19.7
1.497750	---	29.03	46.00	16.97	L1	OFF	19.7
1.590000	36.24	---	56.00	19.76	L1	OFF	19.7
1.590000	---	30.84	46.00	15.16	L1	OFF	19.7
1.653000	36.62	---	56.00	19.38	L1	OFF	19.7
1.653000	---	31.39	46.00	14.61	L1	OFF	19.7
2.319000	37.81	---	56.00	18.19	L1	OFF	19.7
2.319000	---	29.18	46.00	16.82	L1	OFF	19.7
3.669000	36.01	---	56.00	19.99	L1	OFF	19.8
3.669000	---	28.47	46.00	17.53	L1	OFF	19.8
4.814250	37.18	---	56.00	18.82	L1	OFF	19.8
4.814250	---	28.71	46.00	17.29	L1	OFF	19.8
13.560000	50.46	---	60.00	9.54	L1	OFF	20.2
13.560000	---	35.68	50.00	14.32	L1	OFF	20.2
18.564000	35.73	---	60.00	24.27	L1	OFF	20.4
18.564000	---	28.18	50.00	21.82	L1	OFF	20.4

# EUT Information

Report NO : 261611  
 Test Mode : Mode 5  
 Test Voltage : 120Vac/60Hz  
 Phase : Neutral

Full Spectrum



## Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.156750	---	34.05	55.63	21.58	N	OFF	19.6
0.156750	44.48	---	65.63	21.15	N	OFF	19.6
0.377250	---	31.33	48.34	17.01	N	OFF	19.6
0.377250	41.26	---	58.34	17.08	N	OFF	19.6
0.411000	---	31.55	47.63	16.08	N	OFF	19.6
0.411000	41.41	---	57.63	16.22	N	OFF	19.6
0.442500	---	31.54	47.02	15.48	N	OFF	19.6
0.442500	40.77	---	57.02	16.25	N	OFF	19.6
0.476250	---	30.89	46.40	15.51	N	OFF	19.6
0.476250	41.67	---	56.40	14.73	N	OFF	19.6
0.492000	---	28.75	46.13	17.38	N	OFF	19.6
0.492000	39.01	---	56.13	17.12	N	OFF	19.6
0.525750	---	30.10	46.00	15.90	N	OFF	19.6
0.525750	38.55	---	56.00	17.45	N	OFF	19.6
0.570750	---	36.46	46.00	9.54	N	OFF	19.6
0.570750	46.78	---	56.00	9.22	N	OFF	19.6
0.593250	---	36.33	46.00	9.67	N	OFF	19.6
0.593250	43.49	---	56.00	12.51	N	OFF	19.6
0.624750	---	33.50	46.00	12.50	N	OFF	19.6
0.624750	43.80	---	56.00	12.20	N	OFF	19.6
0.660750	---	32.45	46.00	13.55	N	OFF	19.6

0.660750	40.22	---	56.00	15.78	N	OFF	19.6
0.696750	---	30.77	46.00	15.23	N	OFF	19.6
0.696750	41.00	---	56.00	15.00	N	OFF	19.6
0.726000	---	32.58	46.00	13.42	N	OFF	19.6
0.726000	41.67	---	56.00	14.33	N	OFF	19.6
0.753000	---	31.52	46.00	14.48	N	OFF	19.6
0.753000	41.11	---	56.00	14.89	N	OFF	19.6
0.791250	---	31.90	46.00	14.10	N	OFF	19.6
0.791250	42.25	---	56.00	13.75	N	OFF	19.6
0.822750	---	32.55	46.00	13.45	N	OFF	19.6
0.822750	43.31	---	56.00	12.69	N	OFF	19.6
0.856500	---	32.41	46.00	13.59	N	OFF	19.6
0.856500	42.78	---	56.00	13.22	N	OFF	19.6
0.888000	---	31.82	46.00	14.18	N	OFF	19.6
0.888000	42.20	---	56.00	13.80	N	OFF	19.6
0.921750	---	31.74	46.00	14.26	N	OFF	19.6
0.921750	41.45	---	56.00	14.55	N	OFF	19.6
0.951000	---	32.02	46.00	13.98	N	OFF	19.6
0.951000	42.30	---	56.00	13.70	N	OFF	19.6
0.982500	---	31.68	46.00	14.32	N	OFF	19.6
0.982500	42.81	---	56.00	13.19	N	OFF	19.6
1.016250	---	31.99	46.00	14.01	N	OFF	19.6
1.016250	43.21	---	56.00	12.79	N	OFF	19.6
1.045500	---	32.29	46.00	13.71	N	OFF	19.6
1.045500	43.16	---	56.00	12.84	N	OFF	19.6
1.081500	---	32.14	46.00	13.86	N	OFF	19.6
1.081500	40.86	---	56.00	15.14	N	OFF	19.6
1.128750	---	31.93	46.00	14.07	N	OFF	19.6
1.128750	41.92	---	56.00	14.08	N	OFF	19.6
1.153500	---	30.52	46.00	15.48	N	OFF	19.6
1.153500	40.55	---	56.00	15.45	N	OFF	19.6
1.205250	---	31.02	46.00	14.98	N	OFF	19.6
1.205250	43.26	---	56.00	12.74	N	OFF	19.6
1.236750	---	30.82	46.00	15.18	N	OFF	19.6
1.236750	42.81	---	56.00	13.19	N	OFF	19.6
1.284000	---	30.96	46.00	15.04	N	OFF	19.7
1.284000	40.07	---	56.00	15.93	N	OFF	19.7
1.313250	---	32.36	46.00	13.64	N	OFF	19.7
1.313250	40.20	---	56.00	15.80	N	OFF	19.7
1.351500	---	36.79	46.00	9.21	N	OFF	19.7
1.351500	42.17	---	56.00	13.83	N	OFF	19.7
1.392000	---	34.96	46.00	11.04	N	OFF	19.7
1.392000	41.75	---	56.00	14.25	N	OFF	19.7
1.428000	---	33.98	46.00	12.02	N	OFF	19.7
1.428000	42.02	---	56.00	13.98	N	OFF	19.7
2.472000	---	30.35	46.00	15.65	N	OFF	19.7
2.472000	39.79	---	56.00	16.21	N	OFF	19.7
13.560000	---	33.76	50.00	16.24	N	OFF	20.2
13.560000	48.57	---	60.00	11.43	N	OFF	20.2
14.970750	---	28.60	50.00	21.40	N	OFF	20.3
14.970750	38.14	---	60.00	21.86	N	OFF	20.3



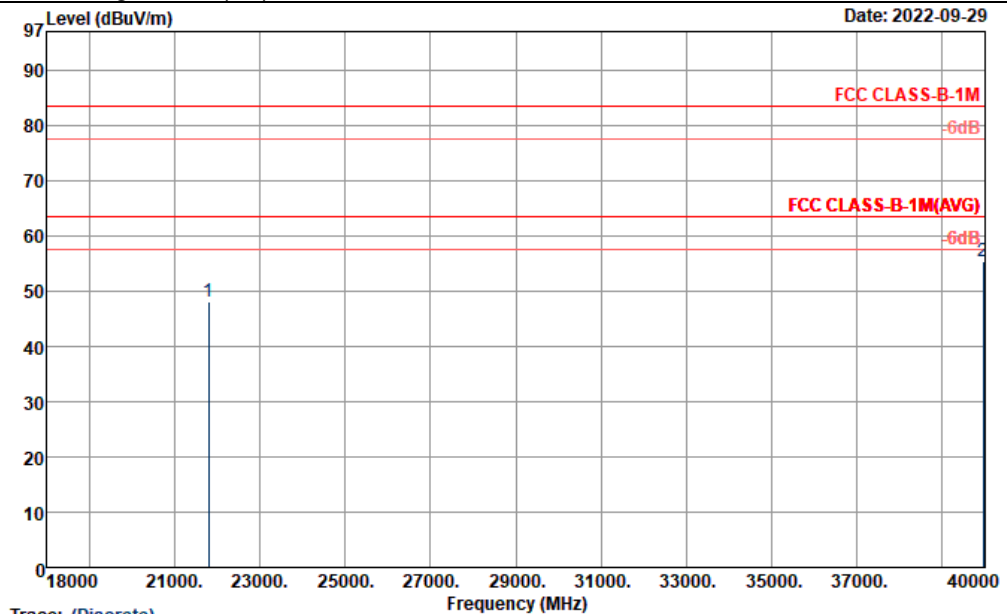
## Appendix B. Radiated Emission Test Result

Test Engineer :	YouXian Chen	Temperature :	24~26°C																																																																																																																																																																																																																												
		Relative Humidity :	40~47%																																																																																																																																																																																																																												
Test Distance :	3m	Polarization :	Horizontal																																																																																																																																																																																																																												
Remark :	#6 is system simulator signal which can be ignored.																																																																																																																																																																																																																														
<ul style="list-style-type: none"> <li>■ Emission level (dBµV/m) = 20 log Emission level (µV/m)</li> <li>■ Factor(dB) = Antenna Factor + Cable Loss + Filter loss - Preamp Factor</li> <li>■ Corrected Reading: Factor(dB) + Read Level = Level</li> </ul>																																																																																																																																																																																																																															
<div style="text-align: right;">Date: 2022-09-29</div> <p>Trace: (Discrete)</p> <p>Site : 03CH06-HY</p> <p>Condition : FCC CLASS-B 3m 9120D_02037 HORIZONTAL</p> <p>Project : 261611</p> <p>Power : From System</p> <p>Memo : Mode 4 : NB to SD</p> <table border="1"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Over</th> <th>Limit</th> <th>Read</th> <th>Factor</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>cm</th> <th>deg</th> <th></th> </tr> </thead> <tbody> <tr><td>1 !</td><td>68.07</td><td>38.81</td><td>-1.19</td><td>40.00</td><td>56.69</td><td>-17.88</td><td>296</td><td>211</td><td>QP</td></tr> <tr><td>2 !</td><td>163.92</td><td>37.77</td><td>-5.73</td><td>43.50</td><td>51.29</td><td>-13.52</td><td>165</td><td>318</td><td>QP</td></tr> <tr><td>3</td><td>247.08</td><td>38.19</td><td>-7.81</td><td>46.00</td><td>48.90</td><td>-10.71</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>4</td><td>349.00</td><td>37.30</td><td>-8.70</td><td>46.00</td><td>45.51</td><td>-8.21</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>5</td><td>498.10</td><td>32.19</td><td>-13.81</td><td>46.00</td><td>36.46</td><td>-4.27</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>6 *</td><td>763.00</td><td>47.23</td><td></td><td></td><td>46.29</td><td>0.94</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>7</td><td>1000.00</td><td>37.86</td><td>-16.14</td><td>54.00</td><td>31.83</td><td>6.03</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>8</td><td>2658.00</td><td>24.61</td><td>-29.39</td><td>54.00</td><td>50.90</td><td>-26.29</td><td>100</td><td>63</td><td>Average</td></tr> <tr><td>9</td><td>2658.00</td><td>49.22</td><td>-24.78</td><td>74.00</td><td>75.51</td><td>-26.29</td><td>100</td><td>63</td><td>Peak</td></tr> <tr><td>10</td><td>3200.00</td><td>47.31</td><td>-26.69</td><td>74.00</td><td>71.71</td><td>-24.40</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>11</td><td>6644.00</td><td>45.78</td><td>-28.22</td><td>74.00</td><td>60.82</td><td>-15.04</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>12</td><td>8744.00</td><td>47.37</td><td>-26.63</td><td>74.00</td><td>58.73</td><td>-11.36</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>13</td><td>10762.00</td><td>36.45</td><td>-17.55</td><td>54.00</td><td>42.50</td><td>-6.05</td><td>---</td><td>---</td><td>Average</td></tr> <tr><td>14</td><td>10762.00</td><td>50.85</td><td>-23.15</td><td>74.00</td><td>56.90</td><td>-6.05</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>15</td><td>11490.00</td><td>35.46</td><td>-18.54</td><td>54.00</td><td>40.60</td><td>-5.14</td><td>---</td><td>---</td><td>Average</td></tr> <tr><td>16</td><td>11490.00</td><td>50.53</td><td>-23.47</td><td>74.00</td><td>55.67</td><td>-5.14</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>17</td><td>13990.00</td><td>35.92</td><td>-18.08</td><td>54.00</td><td>38.90</td><td>-2.98</td><td>---</td><td>---</td><td>Average</td></tr> <tr><td>18</td><td>13990.00</td><td>50.77</td><td>-23.23</td><td>74.00</td><td>53.75</td><td>-2.98</td><td>---</td><td>---</td><td>Peak</td></tr> <tr><td>19</td><td>17960.00</td><td>35.99</td><td>-18.01</td><td>54.00</td><td>31.30</td><td>4.69</td><td>---</td><td>---</td><td>Average</td></tr> <tr><td>20</td><td>17960.00</td><td>51.79</td><td>-22.21</td><td>74.00</td><td>47.10</td><td>4.69</td><td>---</td><td>---</td><td>Peak</td></tr> </tbody> </table>					Freq	Level	Over	Limit	Read	Factor	A/Pos	T/Pos	Remark		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	cm	deg		1 !	68.07	38.81	-1.19	40.00	56.69	-17.88	296	211	QP	2 !	163.92	37.77	-5.73	43.50	51.29	-13.52	165	318	QP	3	247.08	38.19	-7.81	46.00	48.90	-10.71	---	---	Peak	4	349.00	37.30	-8.70	46.00	45.51	-8.21	---	---	Peak	5	498.10	32.19	-13.81	46.00	36.46	-4.27	---	---	Peak	6 *	763.00	47.23			46.29	0.94	---	---	Peak	7	1000.00	37.86	-16.14	54.00	31.83	6.03	---	---	Peak	8	2658.00	24.61	-29.39	54.00	50.90	-26.29	100	63	Average	9	2658.00	49.22	-24.78	74.00	75.51	-26.29	100	63	Peak	10	3200.00	47.31	-26.69	74.00	71.71	-24.40	---	---	Peak	11	6644.00	45.78	-28.22	74.00	60.82	-15.04	---	---	Peak	12	8744.00	47.37	-26.63	74.00	58.73	-11.36	---	---	Peak	13	10762.00	36.45	-17.55	54.00	42.50	-6.05	---	---	Average	14	10762.00	50.85	-23.15	74.00	56.90	-6.05	---	---	Peak	15	11490.00	35.46	-18.54	54.00	40.60	-5.14	---	---	Average	16	11490.00	50.53	-23.47	74.00	55.67	-5.14	---	---	Peak	17	13990.00	35.92	-18.08	54.00	38.90	-2.98	---	---	Average	18	13990.00	50.77	-23.23	74.00	53.75	-2.98	---	---	Peak	19	17960.00	35.99	-18.01	54.00	31.30	4.69	---	---	Average	20	17960.00	51.79	-22.21	74.00	47.10	4.69	---	---	Peak
	Freq	Level	Over	Limit	Read	Factor	A/Pos	T/Pos	Remark																																																																																																																																																																																																																						
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1 !	68.07	38.81	-1.19	40.00	56.69	-17.88	296	211	QP																																																																																																																																																																																																																						
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3	247.08	38.19	-7.81	46.00	48.90	-10.71	---	---	Peak																																																																																																																																																																																																																						
4	349.00	37.30	-8.70	46.00	45.51	-8.21	---	---	Peak																																																																																																																																																																																																																						
5	498.10	32.19	-13.81	46.00	36.46	-4.27	---	---	Peak																																																																																																																																																																																																																						
6 *	763.00	47.23			46.29	0.94	---	---	Peak																																																																																																																																																																																																																						
7	1000.00	37.86	-16.14	54.00	31.83	6.03	---	---	Peak																																																																																																																																																																																																																						
8	2658.00	24.61	-29.39	54.00	50.90	-26.29	100	63	Average																																																																																																																																																																																																																						
9	2658.00	49.22	-24.78	74.00	75.51	-26.29	100	63	Peak																																																																																																																																																																																																																						
10	3200.00	47.31	-26.69	74.00	71.71	-24.40	---	---	Peak																																																																																																																																																																																																																						
11	6644.00	45.78	-28.22	74.00	60.82	-15.04	---	---	Peak																																																																																																																																																																																																																						
12	8744.00	47.37	-26.63	74.00	58.73	-11.36	---	---	Peak																																																																																																																																																																																																																						
13	10762.00	36.45	-17.55	54.00	42.50	-6.05	---	---	Average																																																																																																																																																																																																																						
14	10762.00	50.85	-23.15	74.00	56.90	-6.05	---	---	Peak																																																																																																																																																																																																																						
15	11490.00	35.46	-18.54	54.00	40.60	-5.14	---	---	Average																																																																																																																																																																																																																						
16	11490.00	50.53	-23.47	74.00	55.67	-5.14	---	---	Peak																																																																																																																																																																																																																						
17	13990.00	35.92	-18.08	54.00	38.90	-2.98	---	---	Average																																																																																																																																																																																																																						
18	13990.00	50.77	-23.23	74.00	53.75	-2.98	---	---	Peak																																																																																																																																																																																																																						
19	17960.00	35.99	-18.01	54.00	31.30	4.69	---	---	Average																																																																																																																																																																																																																						
20	17960.00	51.79	-22.21	74.00	47.10	4.69	---	---	Peak																																																																																																																																																																																																																						



<b>Test Engineer :</b>	YouXian Chen	<b>Temperature :</b>	24~26°C
		<b>Relative Humidity :</b>	40~47%
<b>Test Distance :</b>	3m	<b>Polarization :</b>	Horizontal

- Emission level (dBμV/m) = 20 log Emission level (μV/m)
- Factor(dB) = Antenna Factor + Cable Loss + Filter loss - Preamp Factor
- Corrected Reading: Factor(dB) + Read Level = Level



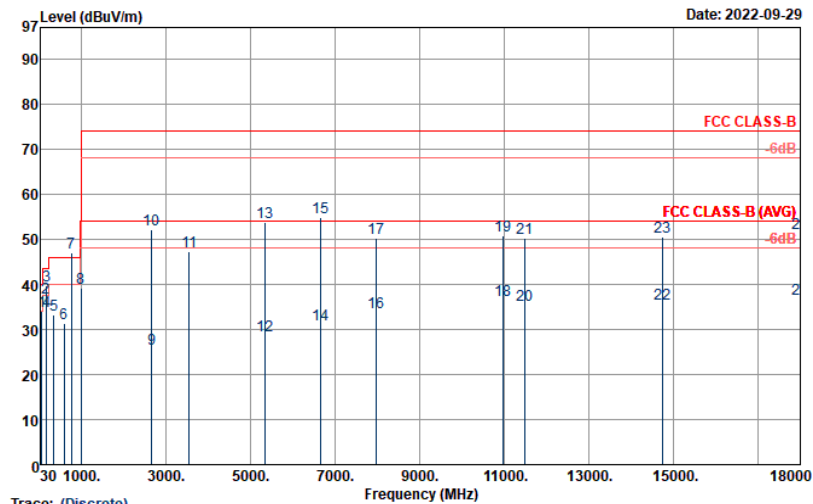
Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B-1M 1m BBHA\_9170251\_211130 HORIZONTAL  
 Project : 261611  
 Power : From System  
 Memo : Mode 4  
       : NB to SD

	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	21806.00	48.09	-35.45	83.54	45.60	2.49	---	---	Peak
2	39956.00	55.40	-28.14	83.54	35.43	19.97	---	---	Peak



Test Engineer :	YouXian Chen	Temperature :	24~26°C
		Relative Humidity :	40~47%
Test Distance :	3m	Polarization :	Vertical
Remark :	#7 is system simulator signal which can be ignored.		

- Emission level (dBµV/m) = 20 log Emission level (µV/m)
- Factor(dB) = Antenna Factor + Cable Loss + Filter loss - Preamp Factor
- Corrected Reading: Factor(dB) + Read Level = Level



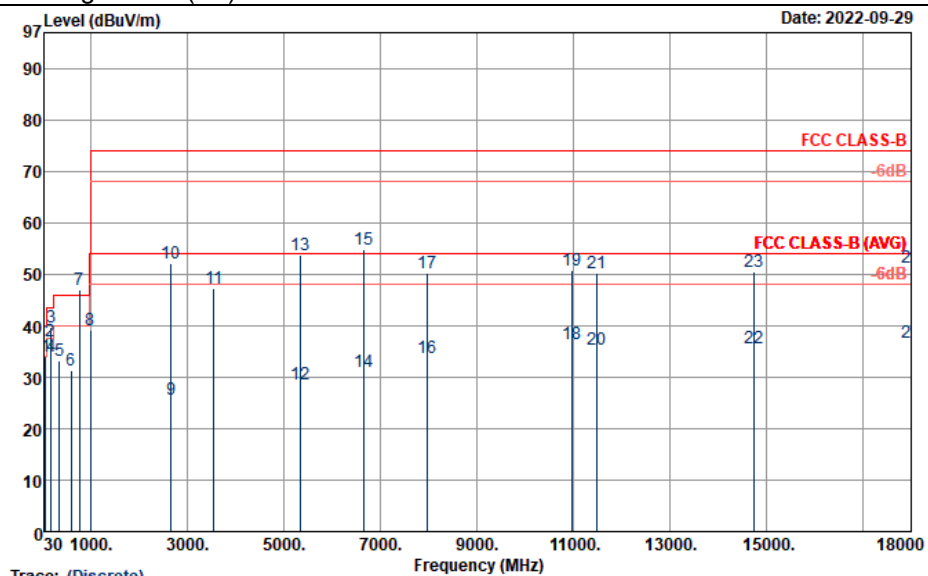
Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m 9120D\_02037 VERTICAL  
 Project : 261611  
 Power : From System  
 Memo : Mode 4  
 : NB to SD

	Freq	Level	Over	Limit	Read	Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	cm	deg	
1 !	68.34	34.16	-5.84	40.00	52.10	-17.94	100	267	QP
2	170.13	37.11	-6.39	43.50	51.20	-14.09	100	360	QP
3 !	186.87	39.85	-3.65	43.50	54.55	-14.70	100	349	Peak
4	186.87	34.11	-9.39	43.50	48.81	-14.70	100	349	QP
5	356.00	33.25	-12.75	46.00	41.22	-7.97	---	---	Peak
6	589.00	31.43	-14.57	46.00	33.40	-1.97	---	---	Peak
7 *	763.00	47.12			46.18	0.94	---	---	Peak
8	1000.00	39.08	-14.92	54.00	33.05	6.03	---	---	Peak
9	2664.00	25.67	-28.33	54.00	51.90	-26.23	100	104	Average
10	2664.00	52.17	-21.83	74.00	78.40	-26.23	100	104	Peak
11	3556.00	47.41	-26.59	74.00	71.09	-23.68	---	---	Peak
12	5334.00	28.69	-25.31	54.00	47.91	-19.22	100	161	Average
13	5334.00	53.79	-20.21	74.00	73.01	-19.22	100	161	Peak
14	6650.00	31.07	-22.93	54.00	46.10	-15.03	100	181	Average
15	6650.00	54.77	-19.23	74.00	69.80	-15.03	100	181	Peak
16	7978.00	33.89	-20.11	54.00	46.01	-12.12	143	106	Average
17	7978.00	50.19	-23.81	74.00	62.31	-12.12	143	106	Peak
18	10964.00	36.45	-17.55	54.00	41.60	-5.15	---	---	Average
19	10964.00	50.70	-23.30	74.00	55.85	-5.15	---	---	Peak
20	11486.00	35.36	-18.64	54.00	40.50	-5.14	---	---	Average



Test Engineer :	YouXian Chen	Temperature :	24~26°C
		Relative Humidity :	40~47%
Test Distance :	3m	Polarization :	Vertical

- Emission level (dBµV/m) = 20 log Emission level (µV/m)
- Factor(dB) = Antenna Factor + Cable Loss + Filter loss - Preamp Factor
- Corrected Reading: Factor(dB) + Read Level = Level



Trace: (Discrete)

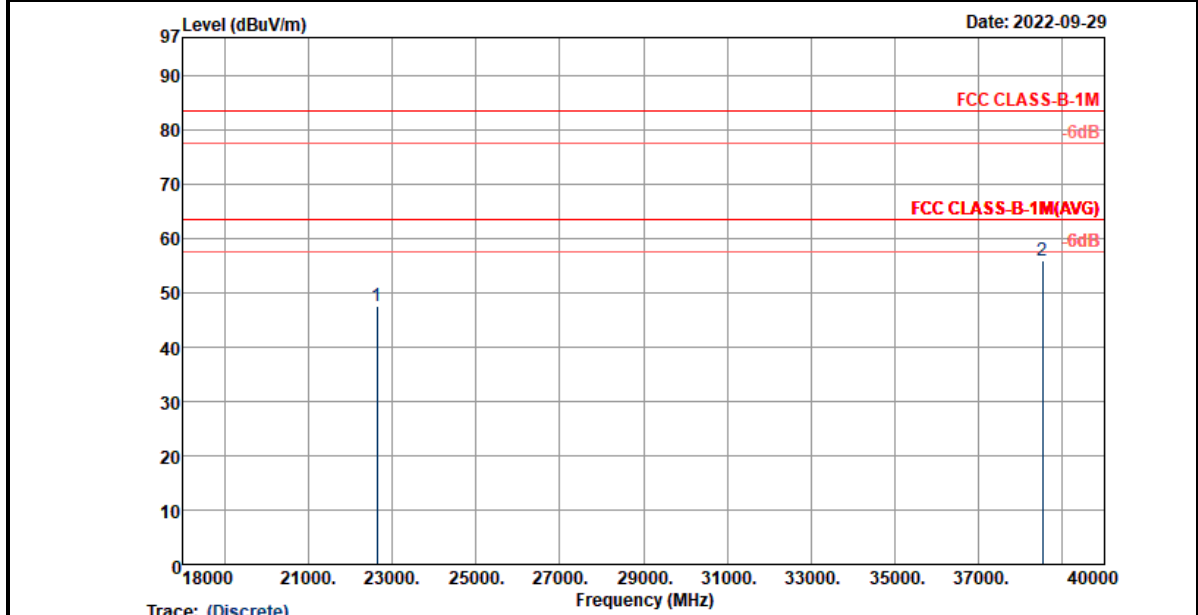
Site : 03CH06-HY  
 Condition : FCC CLASS-B 3m 9120D\_02037 VERTICAL  
 Project : 261611  
 Power : From System  
 Memo : Mode 4  
 : NB to SD

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	
21	11486.00	50.21 -23.79	74.00	55.35	-5.14	---	---	Peak
22	14730.00	35.60 -18.40	54.00	38.19	-2.59	---	---	Average
23	14730.00	50.55 -23.45	74.00	53.14	-2.59	---	---	Peak
24	17995.00	36.80 -17.20	54.00	31.80	5.00	---	---	Average
25	17995.00	51.31 -22.69	74.00	46.31	5.00	---	---	Peak



Test Engineer :	YouXian Chen	Temperature :	24~26°C
		Relative Humidity :	40~47%
Test Distance :	3m	Polarization :	Vertical

- Emission level (dBμV/m) = 20 log Emission level (μV/m)
- Factor(dB) = Antenna Factor + Cable Loss + Filter loss - Preamp Factor
- Corrected Reading: Factor(dB) + Read Level = Level



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : FCC CLASS-B-1M 1m BBHA\_9170251\_211130 VERTICAL  
 Project : 261611  
 Power : From System  
 Memo : Mode 4  
 : NB to SD

	Freq	Level	Over	Limit	Read	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	cm	deg
1	22642.00	47.61	-35.93	83.54	44.15	3.46	---	Peak
2	38526.00	55.83	-27.71	83.54	39.72	16.11	---	Peak