



Test Report No.:  
**FCCSZ2025-0035-EMC**

## EMC Test Report

**FCC ID** : 2AJFX-B15  
**EUT** : 4G-Cloud Box-NA  
**APPLICANT** : DDPAI Technology Co., Ltd.  
**Classification of Test** : N/A

**CVC Testing Technology (Shenzhen) Co., Ltd.**



<b>Applicant</b>		<b>Name: DDPAI Technology Co., Ltd.</b> <b>Address:28F, Building 8A, International Innovation Valley, Nanshan District, Shenzhen, Guangdong Province</b>	
<b>Manufacturer</b>		<b>Name: DDPAI Technology Co., Ltd.</b> <b>Address:28F, Building 8A, International Innovation Valley, Nanshan District, Shenzhen, Guangdong Province</b>	
<b>Equipment Under Test</b>		<b>Name: 4G-Cloud Box</b> <b>Model/Type:DDPAI B15</b> <b>Additional Model: N/A</b> <b>Brand: DDPAI</b> <b>Serial NO.: N/A</b> <b>Sample NO.:3-1</b>	
Date of Receipt.	<b>Apr 24, 2025</b>	Date of Testing	<b>Apr 24, 2025~Apr 28, 2025</b>
<b>Test Specification</b>		<b>Test Result</b>	
<b>FCC Part 15, Subpart B, Class B</b>		<b>PASS</b>	
<b>Evaluation of Test Result</b>		The equipment under test was found to comply with the requirements of the standards applied.	
		<b>Seal of CVC</b> <b>Issue Date:Apr. 29, 2025</b>	
Compiled by:   <u>Liang Jiatong</u> Name      Signature	Reviewed by:   <u>Mo Xianbiao</u> Name      Signature	Approved by:   <u>Dong Sanbi</u> Name      Signature	
<b>Other Aspects: NONE.</b>			
Abbreviations:OK, Pass= passed		Fail = failed	N/A= not applicable
EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCCSZ2025-0035-EMC	Original release	Apr. 29, 2025



## 1. SUMMARY OF TEST RESULTS

EMISSION			
Standard	Test Item	Result	Remarks
FCC Part 15, Subpart B, Class B	Conducted Test (150KHz~ 30MHz)	PASS	Minimum passing margin is 3.6 dB at 0.5560MHz
	Radiated Test (30MHz~ 1GHz)	PASS	Minimum passing margin is 14.90 dB at 718.284MHz
	Radiated Test (Above 1GHz)	PASS	Minimum passing margin is 12.20 dB at 11046.205MHz



## 1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

RE Test - 3M Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. interval	Cal. Due
EMI Test Receiver	Rohde&Schwarz	ESR 26	101718	1 year	2025/5/24
Loop antenna (8.3k~30MHz)	Rohde&Schwarz	HFH2-Z2E	100951	1 year	2025/6/3
Antenna(30MHz~1000MHz)	SCHWARZBECK	VULB 9168	1132	1 year	2026/1/09
Horn antenna(1GHz-18GHz)	ETS	3117	227634	1 year	2026/2/4
Horn antenna(18GHz-40GHz)	SCHWARZBECK	BBHA 9170	1003	1 year	2026/3/24
3m anechoic chamber	MORI	966	N/A	1 year	2026/5/18
Preamplifier(10kHz-1GHz)	Rohde&Schwarz	SCU-01F	100298	1 year	2025/4/28
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100799	1 year	2025/4/28
Attenuator	/	/	/	/	/
#1 control room	MORI	433	/	1 year	2026/5/16
Temperature and humidity meter	/	C193561473	C193561473	1 year	2025/4/27
CE Test - 3M Chamber					
Equipment	Manufacturer	Model No.	Serial Number	Cal. interval	Cal. Due
EMI Test Receiver	Rohde&Schwarz	ESR3	102693	1 year	2025/5/24
limiter (10 dB)	Rohde&Schwarz	ESH3-Z2	102824	1 year	2025/5/15
Voltage probe	Rohde&Schwarz	CVP9222C	28	1 year	2025/4/27
Current probe	Rohde&Schwarz	EZ-17	101442	1 year	2025/4/28
ISN network	Rohde&Schwarz	ENV 81	100401	1 year	2025/4/28
ISN network	Rohde&Schwarz	ENV 81 Cat6	101896	1 year	2025/4/28
#1Shielding room	MORI	854	N/A	3 year	2026/5/16
LISN	SCHWARZBECK	NSLK 8129	5021	1 year	2025/4/27
Temperature and humidity meter	/	C193561430	C193561430	1 year	2025/4/27
RSE Test - 3M Chamber					
Signal&Spectrum Analyzer	Rohde&Schwarz	FSV 40	101898	1 year	2025/4/28
EMI Test Receiver	Rohde&Schwarz	ESR3	102693	1 year	2025/4/28
Antenna(30MHz~1001MHz)	SCHWARZBECK	VULB 9168	1133	1 year	2026/1/09
Horn antenna(1GHz-18GHz)	ETS	3117	227611	1 year	2026/2/4
Horn antenna(18GHz-40GHz)	QMS	QMS-00880	22051	1 year	2026/3/24
3m anechoic chamber	MORI	966	CS0300011	3 year	2026/5/18
Filter group(RSE-BT/WiFi)	Rohde&Schwarz	WiFi /BT Variant 1	100820	1 year	2025/4/28
Filter group(RSE-Cellular)	Rohde&Schwarz	Cellular Variant 1	100768	1 year	2025/4/28
Preamplifier(10kHz-1GHz)	Rohde&Schwarz	SCU-01F	100299	1 year	2025/4/28
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100799	1 year	2025/4/28
Preamplifier(1GHz-18GHz)	Rohde&Schwarz	SCU-18F	100801	1 year	2025/4/28
Preamplifier(18Gz-40GHz)	Rohde&Schwarz	SCU-40A	101209	1 year	2025/4/28
Temperature and humidity meter	/	C193561517	C193561517	1 year	2026/1/27



## 1.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

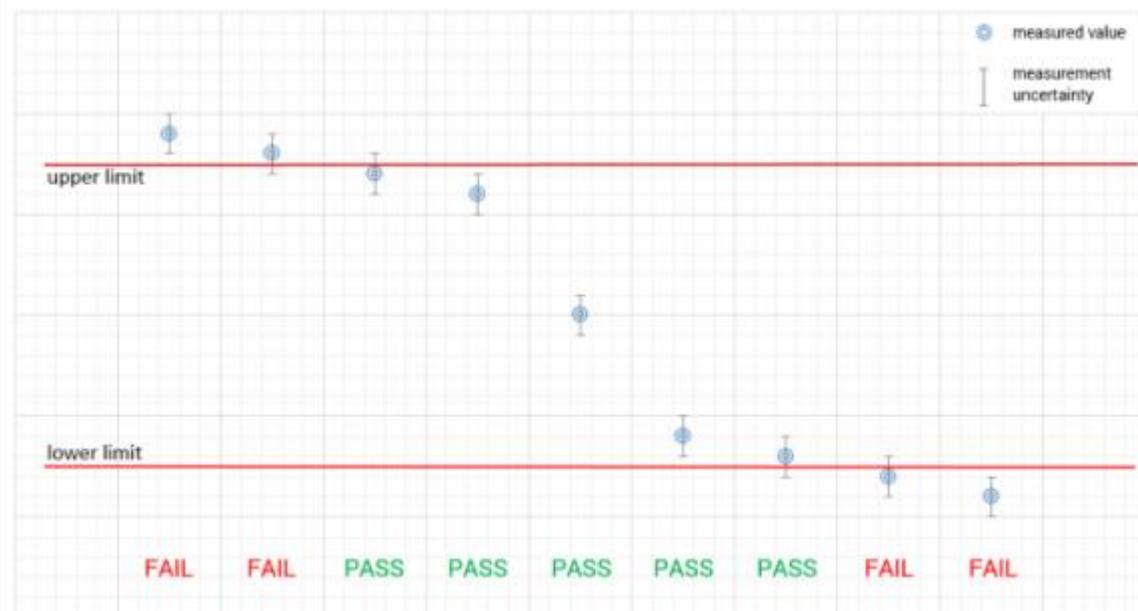
No.	Item	Measurement Uncertainty
1	Conducted emission test	+/-2.70 dB
2	Radiated emission 30MHz-1GHz	+/-4.6 dB
3	Radiated emission 1GHz-18GHz	+/-4.4 dB
4	Radiated emission 18GHz-40GHz	+/-5.1 dB

**Remark: 95% Confidence Levels, k=2.**

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed.

The measurement uncertainty is mentioned in this test report, but is not taken into account - neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong.

measured value, measurement uncertainty, verdict





## 1.3 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab of CVC Testing Technology (Shenzhen) Co., Ltd.

Lab Address: No. 1301-14&16, Guanguang Road, Xinlan Community, Guanlan Subdistrict, Longhua District, Shenzhen, Guangdong, China

Post Code: 518110 Tel: 0755-23763060-8805

Fax: 0755-23763060 E-mail: sz-kf@cvc.org.cn

FCC(Test firm designation number: CN1363)

IC(Test firm CAB identifier number: CN0137)

CNAS(Test firm designation number: L16091)



## 2. GENERAL INFORMATION

### 2.1 GENERAL PRODUCT INFORMATION

PRODUCT	4G-Cloud Box-NA
BRAND	DDPAI
TEST MODEL	DDPAI B15
ADDITIONAL MODEL	N/A
POWER SUPPLY	DC 12V from adapter
OPERATING FREQUENCY	Above 108MHz
I/O PORTS	refer to the User's Manual
CABLE SUPPLIED	N/A

Remark:

1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



## 2.2 INDEPENDENT OPERATION MODES

The EUT were tested under the following modes, the final worst mode was marked in boldface and recorded in this report.

EMISSION Test Modes		
For Radiated Emission Test		
	Test Mode	Test Voltage
1	Normal Working	DC 12V

## 2.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

**FCC PART 15, SUBPART B, CLASS B(SDOC)  
ANSI C63.4:2014**

All test items have been performed and recorded as per the above standards.

## 2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support Equipment					
NO	Description	Brand	Model No.	Serial Number	Supplied by
1	N/A	N/A	N/A	N/A	N/A

Support Cable							
NO	Description	Quantity (Number)	Length (m)	Detachable (Yes/ No)	Shielded (Yes/ No)	Cores (Number)	Supplied by
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

### 3. EMISSION

#### 3.1 CONDUCTED EMISSION

##### 3.1.1 Limits Of Conducted Emission

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107) and ICES-003 (Class A: section 6.1)

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.

NOTE: 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

NOTE: 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

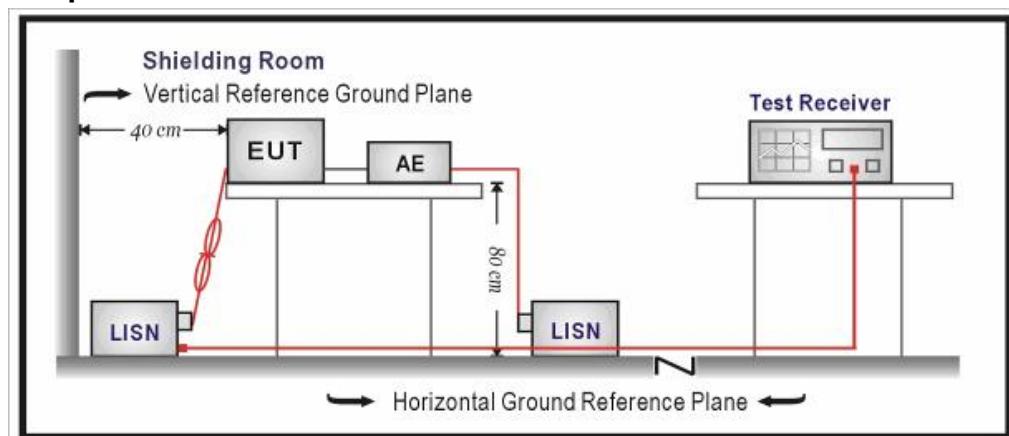
##### 3.1.2 Test Procedures

The basic test procedure was in accordance with ANSI C63.4:2014 (section 7).

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The test results of conducted emissions at mains ports are recorded of six worst margins for quasi-peak (mandatory) [and average (if necessary)] values against the limits at frequencies of interest unless the margin is 20 dB or greater.

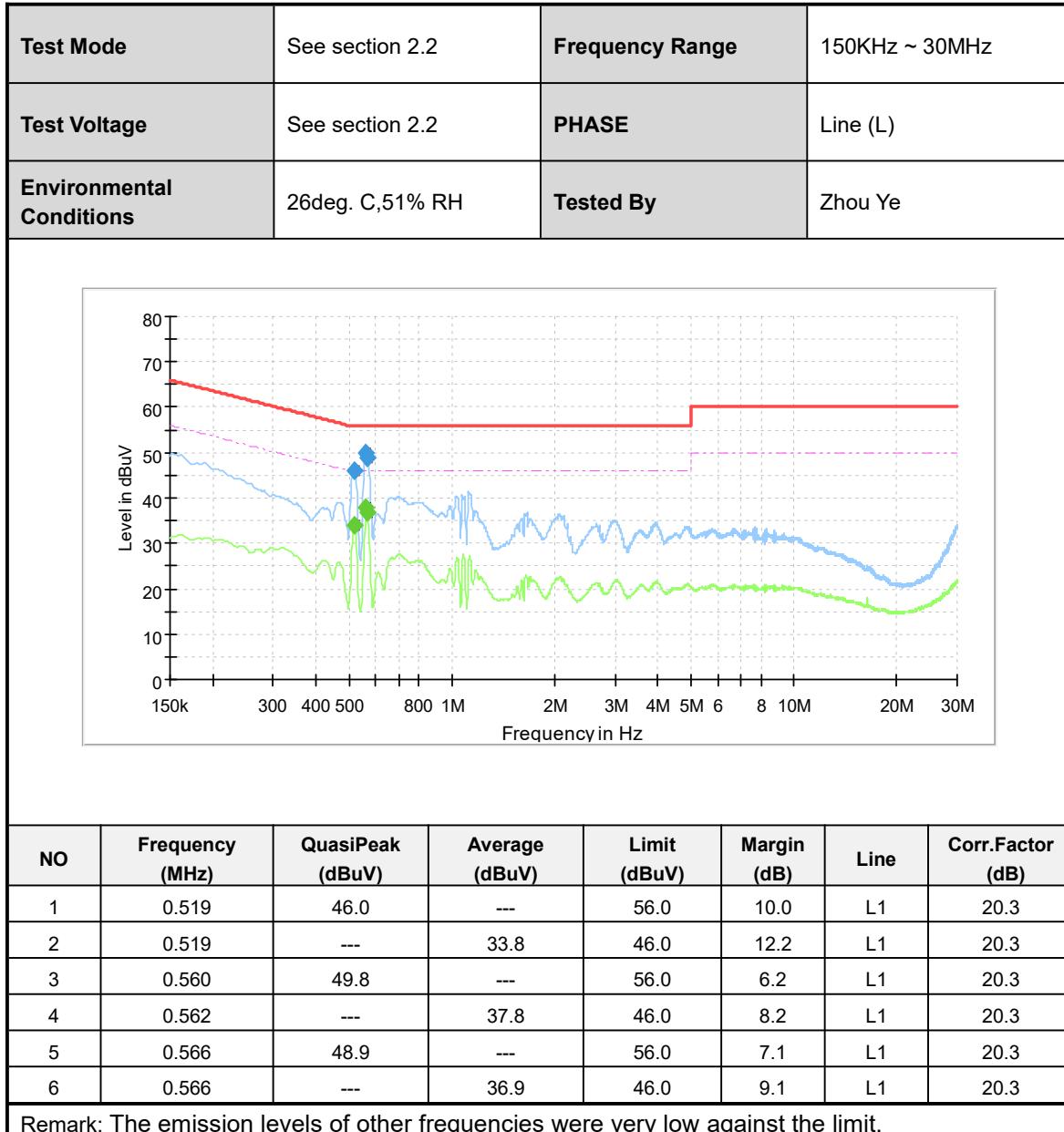
Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

##### 3.1.3 Test setup



### 3.1.4 Test Results

CONDUCTED WORST-CASE DATA:





<b>Test Mode</b>	See section 2.2	<b>Frequency Range</b>	150KHz ~ 30MHz																																																								
<b>Test Voltage</b>	See section 2.2	<b>PHASE</b>	Line (N)																																																								
<b>Environmental Conditions</b>	26deg. C, 51% RH	<b>Tested By</b>	Zhou Ye																																																								
<table border="1"><thead><tr><th>NO</th><th>Frequency (MHz)</th><th>QuasiPeak (dBuV)</th><th>Average (dBuV)</th><th>Limit (dBuV)</th><th>Margin (dB)</th><th>Line</th><th>Corr.Factor (dB)</th></tr></thead><tbody><tr><td>1</td><td>0.517</td><td>---</td><td>35.6</td><td>46.0</td><td>10.4</td><td>N</td><td>20.2</td></tr><tr><td>2</td><td>0.557</td><td>48.8</td><td>---</td><td>56.0</td><td>7.2</td><td>N</td><td>20.2</td></tr><tr><td>3</td><td><b>0.560</b></td><td>---</td><td><b>42.4</b></td><td><b>46.0</b></td><td><b>3.6</b></td><td><b>N</b></td><td><b>20.2</b></td></tr><tr><td>4</td><td>0.566</td><td>---</td><td>39.7</td><td>46.0</td><td>6.3</td><td>N</td><td>20.2</td></tr><tr><td>5</td><td>0.566</td><td>47.5</td><td>---</td><td>56.0</td><td>8.5</td><td>N</td><td>20.2</td></tr><tr><td>6</td><td>1.068</td><td>42.9</td><td>---</td><td>56.0</td><td>13.1</td><td>N</td><td>20.4</td></tr></tbody></table>				NO	Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr.Factor (dB)	1	0.517	---	35.6	46.0	10.4	N	20.2	2	0.557	48.8	---	56.0	7.2	N	20.2	3	<b>0.560</b>	---	<b>42.4</b>	<b>46.0</b>	<b>3.6</b>	<b>N</b>	<b>20.2</b>	4	0.566	---	39.7	46.0	6.3	N	20.2	5	0.566	47.5	---	56.0	8.5	N	20.2	6	1.068	42.9	---	56.0	13.1	N	20.4
NO	Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr.Factor (dB)																																																				
1	0.517	---	35.6	46.0	10.4	N	20.2																																																				
2	0.557	48.8	---	56.0	7.2	N	20.2																																																				
3	<b>0.560</b>	---	<b>42.4</b>	<b>46.0</b>	<b>3.6</b>	<b>N</b>	<b>20.2</b>																																																				
4	0.566	---	39.7	46.0	6.3	N	20.2																																																				
5	0.566	47.5	---	56.0	8.5	N	20.2																																																				
6	1.068	42.9	---	56.0	13.1	N	20.4																																																				

Remark: The emission levels of other frequencies were very low against the limit.



## 3.2 RADIATED EMISSION

### 3.2.1 Limits of Radiated

#### TEST STANDARD:

FCC Part 15, Subpart B (Section: 15.109),

For above 1GHz (section 3.2.2 Table 4)

FCC Part 15, Subpart B

Frequency (MHz)	Distance (m)	Class A (dBuV)	Class B (dBuV)
30 - 88	3	QP: 49.5	QP: 40
88 - 216	3	QP: 54	QP: 43.5
216 - 960	3	QP: 56.9	QP: 46
960-1000	3	QP: 60	QP: 54
Above 1000	3	Avg: 60 Peak: 80	Avg: 54 Peak: 74

NOTE: 1. The lower limit shall apply at the transition frequencies.

NOTE: 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

NOTE: 3. All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

### 3.2.2 Test Procedures

The basic test procedure was in accordance with ANSI C63.4:2014 (section 12).

#### 1. From 30 MHz to 1GHz test procedure as below:

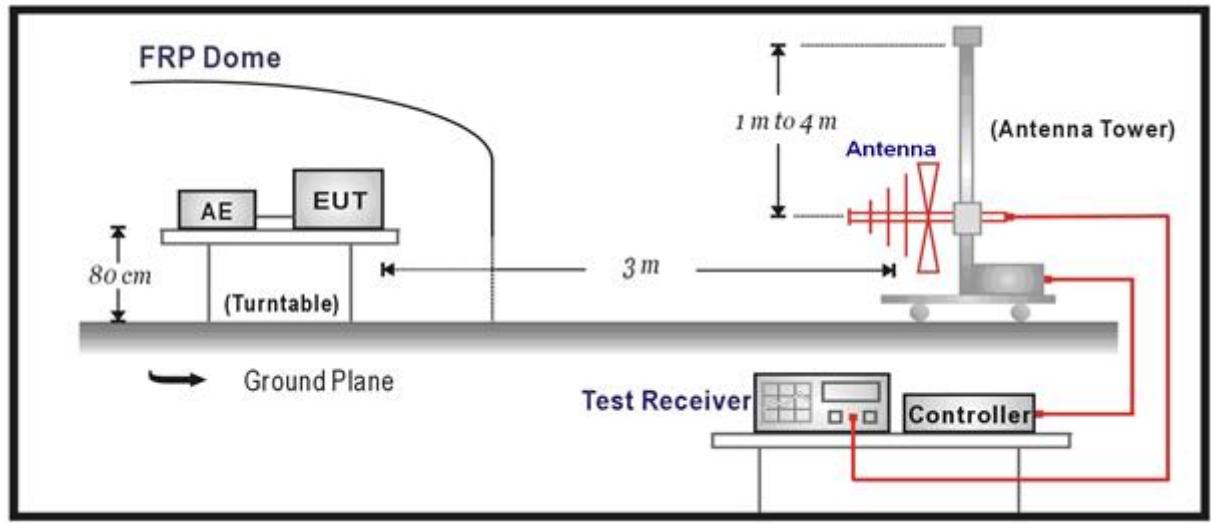
- 1) The radiated emissions were tested in a semi-anechoic chamber.
- 2) The Product was placed on the non-conductive turntable 0.1 m above the ground at a chamber.
- 3) Set the spectrum analyzer/receiver in Peak detector, Max Hold mode, and 120 kHz RBW. Record the maximum field strength of all the pre-scan process in the full band when the antenna is varied between 1~4 m in both horizontal and vertical, and the turntable is rotated from 0 to 360 degrees.
- 4) For each frequency whose maximum record was higher or close to limit, measure its QP value: vary the antenna's height and rotate the turntable from 0 to 360 degrees to find the height and degree where Product radiated the maximum emission, then set the test frequency analyzer/receiver to QP Detector and specified bandwidth with Maximum Hold Mode, and record the maximum value.

#### 2. Above 1GHz test procedure as below:

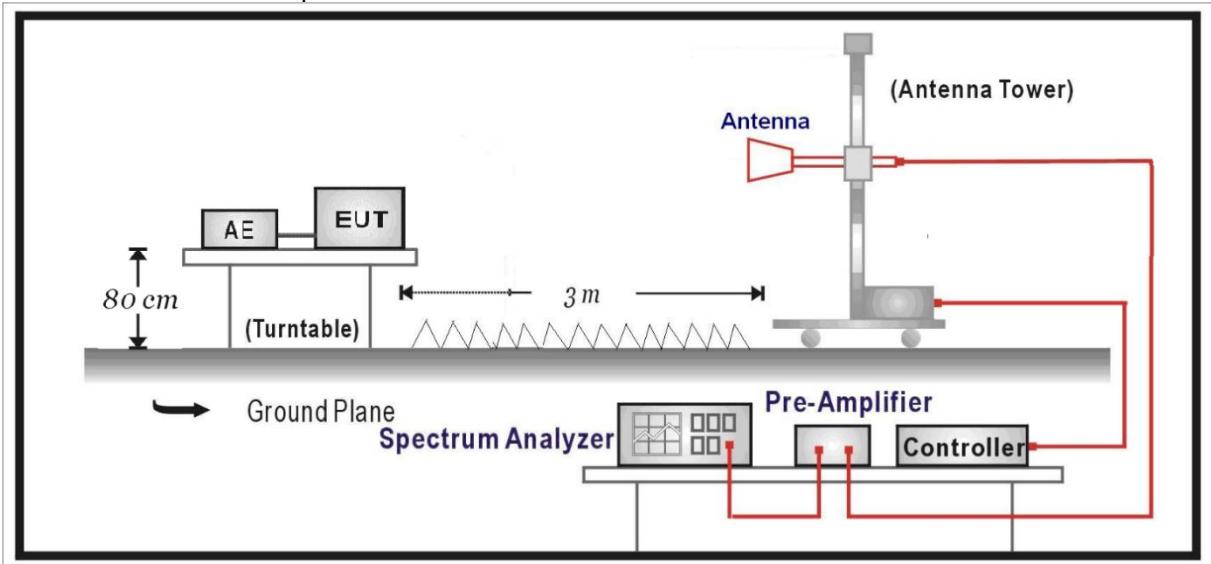
- 1) The radiated emissions were tested in a fully Anechoic Chamber.
- 2) Set the spectrum analyzer/receiver in Peak detector, Max Hold mode, and 1MHz RBW. Record the maximum field strength of all the pre-scan process in the full band when the antenna is varied in both horizontal and vertical, and the turntable is rotated from 0 to 360 degrees.
- 3) For each frequency whose maximum record was higher or close to limit, measure its AV value: rotate the turntable from 0 to 360 degrees to find the degree where Product radiated the maximum emission, then set the test frequency analyzer/receiver to AV value and specified bandwidth with Maximum Hold Mode, and record the maximum value.

### 3.2.3 Test Setup

Below 1GHz Test Setup:

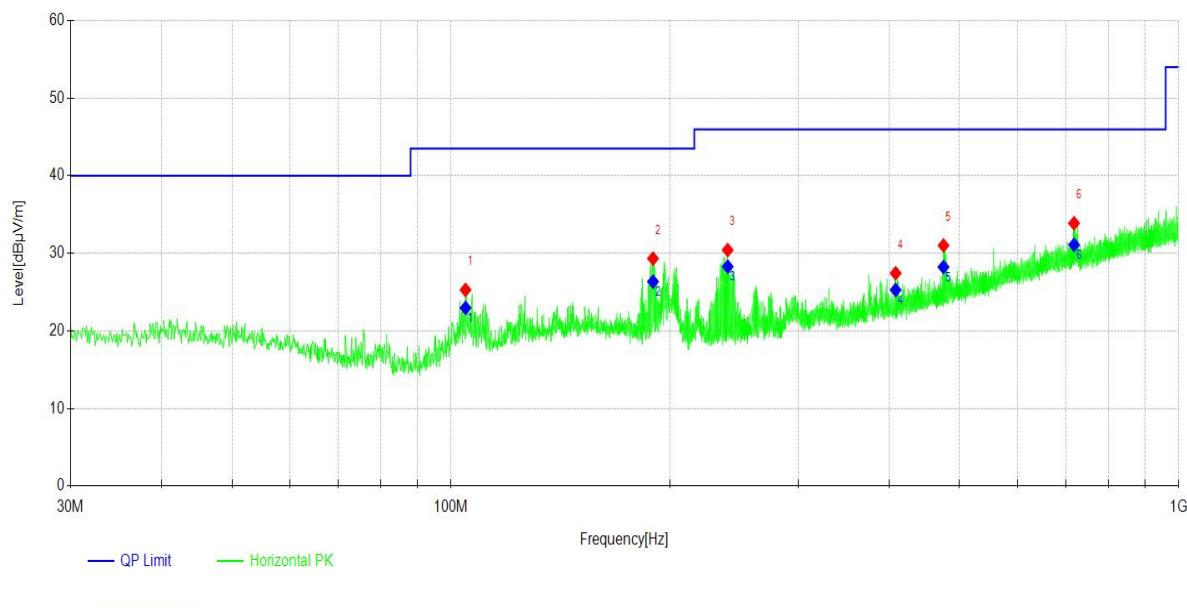


Above 1GHz Test Setup:



### 3.2.4 Test Results (Below 1GHz)

Test Mode:	See section 2.2	Frequency Range	30-1000MHz
Test Voltage	See section 2.2	Detector Function	Quasi-Peak(QP)
Environmental Conditions	25deg. C,60% RH	Tested By	Wang Zhiming



NO.	Freq. [MHz]	Factor [dB]	QP Value [dB $\mu$ V/m]	QP Limit [dB $\mu$ V/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	104.697	17.51	22.96	43.50	20.54	200	358	Horizontal
2	189.484	17.89	26.36	43.50	17.14	100	265	Horizontal
3	240.026	18.91	28.29	46.00	17.71	100	278	Horizontal
4	408.435	22.89	25.29	46.00	20.71	100	77	Horizontal
5	475.178	24.28	28.24	46.00	17.76	200	292	Horizontal
<b>6</b>	<b>718.284</b>	<b>28.43</b>	<b>31.10</b>	<b>46.00</b>	<b>14.90</b>	<b>100</b>	<b>358</b>	<b>Horizontal</b>

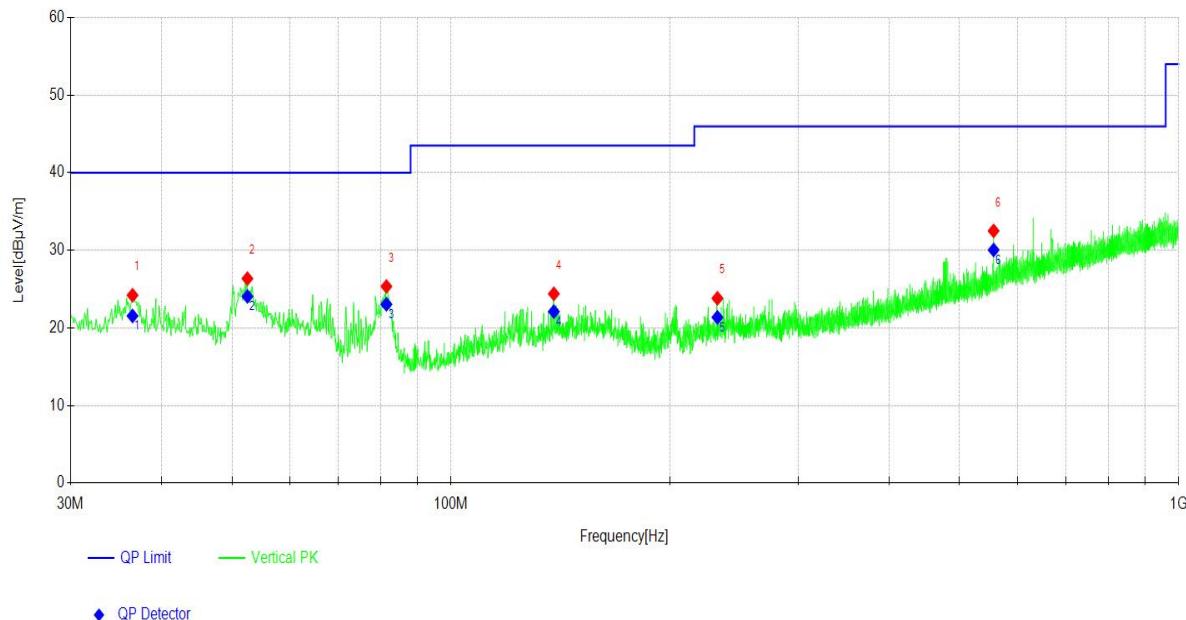
Remark:1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB $\mu$ V/m) = Reading (dB $\mu$ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB $\mu$ V/m] - Level [dB $\mu$ V/m]

Test Mode:	See section 2.2	Frequency Range	30-1000MHz
Test Voltage	See section 2.2	Detector Function	Quasi-Peak(QP)
Environmental Conditions	25deg. C,60% RH	Tested By	Wang Zhiming



NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.500	20.10	21.55	40.00	18.45	100	284	Vertical
2	52.506	19.98	24.06	40.00	15.94	100	186	Vertical
3	81.512	16.08	23.05	40.00	16.95	100	297	Vertical
4	138.457	20.35	22.10	43.50	21.40	100	2	Vertical
5	232.362	18.73	21.36	46.00	24.64	100	10	Vertical
6	556.860	25.80	30.05	46.00	15.95	100	70	Vertical

Remark:1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB $\mu$ V/m) = Reading (dB $\mu$ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB $\mu$ V/m] - Level [dB $\mu$ V/m]



## 3.2.5 Test Results (Above 1GHz)

Test Mode:		See section 2.2		Frequency Range		Above 1GHz			
Test Voltage		See section 2.2		Detector Function		PK/AV			
Environmental Conditions		25deg. C, 60% RH		Tested By		Wang Zhiming			
<b>Horizontal</b>									
Frequency[ MHz]	Factor [dB]	PK Value [dB $\mu$ V/m]	PK Limit [dB $\mu$ V/ m]	PK Margin [dB]	AV Value [dB $\mu$ V/m]	AV Limit [dB $\mu$ V/m]	AV Margin [dB]	Angl e [ $^{\circ}$ ]	Polarity
1202.220	-23.48	28.59	74.00	45.41	21.02	54.00	32.98	221	Horizontal
1781.878	-21.95	34.59	74.00	39.41	28.87	54.00	25.13	191	Horizontal
3564.056	-16.87	34.03	74.00	39.97	28.41	54.00	25.59	332	Horizontal
4852.385	-12.41	39.80	74.00	34.20	35.52	54.00	18.48	357	Horizontal
10028.603	-0.71	43.35	74.00	30.65	32.50	54.00	21.50	70	Horizontal
14361.936	1.24	43.93	74.00	30.07	31.71	54.00	22.29	2	Horizontal
<b>Vertical</b>									
Frequency[ MHz]	Factor [dB]	PK Value [dB $\mu$ V/m]	PK Limit [dB $\mu$ V/ m]	PK Margin [dB]	AV Value [dB $\mu$ V/m]	AV Limit [dB $\mu$ V/m]	AV Margin [dB]	Angl e [ $^{\circ}$ ]	Polarity
2004.500	-19.92	35.36	74.00	38.64	29.92	54.00	24.08	81	Vertical
2879.388	-18.93	31.46	74.00	42.54	21.06	54.00	32.94	311	Vertical
4851.185	-12.43	44.82	74.00	29.18	34.39	54.00	19.61	353	Vertical
7551.155	-5.86	39.36	74.00	34.64	28.23	54.00	25.77	329	Vertical
<b>9918.592</b>	<b>-1.19</b>	<b>42.50</b>	<b>74.00</b>	<b>31.50</b>	<b>40.88</b>	<b>54.00</b>	<b>13.12</b>	<b>2</b>	<b>Vertical</b>
13719.472	0.89	42.72	74.00	31.28	32.09	54.00	21.91	347	Vertical

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dB $\mu$ V/m) = Reading (dB $\mu$ V/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dB $\mu$ V/m] - Level [dB $\mu$ V/m]



#### **4. PHOTOGRAPHS OF TEST SETUP**



**PHOTOGRAPHS OF THE EUT**



----- End of the Report -----



## Important

- (1) The test report is invalid without the official stamp of CVC;
- (2) Any part photocopies of the test report are forbidden without the written permission from CVC;
- (3) The test report is invalid without the signatures of Approval and Reviewer;
- (4) The test report is invalid if altered;
- (5) Objections to the test report must be submitted to CVC within 15 days.
- (6) Generally, commission test is responsible for the tested samples only.
- (7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

Address: No. 1301-14&16, Guanguang Road, Xinlan Community, Guanlan Subdistrict, Longhua District, Shenzhen, Guangdong, China

Post Code: 518110 Tel: 0755-23763060-8805

Fax: 0755-23763060 E-mail: sz-kf@cvc.org.cn

<http://www.cvc.org.cn>