

## FCC Test Report

**Product :** POWER ADAPTER

**Trade Name :**  **宏基星源<sup>®</sup>**

**Model Number :** HJ-0218A,HJ-0218AC,HJ-0218C

**Issued for**

SHENZHEN HONGJIXINGYUAN ELECTRONIC CO.,LTD  
601, Yongchang Building, New Building 4, Xicheng Industrial Zone,  
Longteng Community, Xixiang Street, Bao'an District, Shenzhen

**Issued by**


Shenzhen ATL Testing Technology Co., Ltd.  
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### TEST RESULT CERTIFICATION

Product ..... : POWER ADAPTER

Brand Mark ..... : 

Applicant..... : SHENZHEN HONGJIXINGYUAN ELECTRONIC CO.,LTD

Address ..... : 601, Yongchang Building, New Building 4, Xicheng Industrial Zone, Longteng Community, Xixiang Street, Bao'an District, Shenzhen

Manufacturer..... : SHENZHEN HONGJIXINGYUAN ELECTRONIC CO.,LTD

Address ..... : 601, Yongchang Building, New Building 4, Xicheng Industrial Zone, Longteng Community, Xixiang Street, Bao'an District, Shenzhen

Model No. .... : HJ-0218A

Standards ..... : CFR, Title 47 FCC Part 15: 2023 Subpart B  
ANSI C63.4:2014

This device described above has been tested by ATL, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report.

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**Date of Test** .....

Date (s) of performance of tests ..... : 2024-09-14 to 2024-09-25

Date of Issue..... : 2024-09-25

Test Result..... : **Pass**

Testing by : Rose fang Date : 2024-09-25  
(Rose fang)

Check by : Jane He Date : 2024-09-25  
(Jane He)

Approved by : July Yan Date : 2024-09-25  
(July Yan)



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## 1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
CFR, Title 47 FCC Part 15: 2023 Subpart B ANSI C63.4:2014	Conducted Emission	Class B	PASS	
	Radiated Emission	Class B	PASS	

**NOTE:**

- (1) 'N/A' denotes test is not applicable in this Test Report
- (2) For client's request and manual description, the test will not be executed.

## 1.1 TEST FACILITY

Shenzhen ATL Testing Technology Co., Ltd.

Add. : Room 201, Building 1, Anxu Business Park, No. 35-1, Xiangyin Road, Nanlian Community, Longgang Street, Longgang District, Shenzhen

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

FCC Registration Number: 802773; IC Registration Number: 010276817-001

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$  · where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$  · providing a level of confidence of approximately **95** %.

### A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U · (dB)	NOTE
C	ANSI	150 KHz ~ 30MHz	3.2	

### B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U · (dB)	NOTE
A	ANSI	30MHz ~ 1000MHz	4.7	
		1GHz ~6GHz	5.0	

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	POWER ADAPTER	
Model Name	HJ-0218A	
Additional Model Number(s)	HJ-0218AC,HJ-0218C	
Model Difference	Different appearance.	
Product Description	The EUT is a POWER ADAPTER	
	Operating frequency:	N/A
	Connecting I/O port:	N/A
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.	
Power Source	AC Voltage	
Power Rating	Input: AC100-240V~ 50/60Hz 0.5A MAX Output: DC5V2A 9V2A 12V1.5A 18W MAX	

## 2.2 DESCRIPTION OF TEST MODES

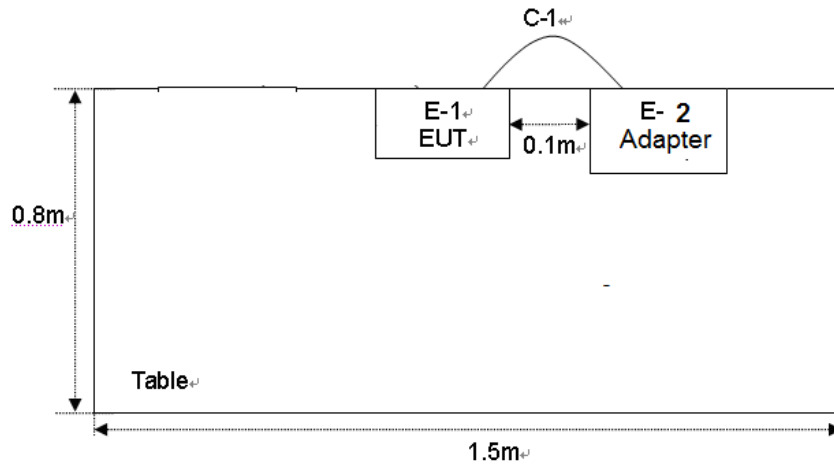
To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Charging

For Conducted Test	
Final Test Mode	Description
Mode 1	Charging

For Radiated Test	
Final Test Mode	Description
Mode 1	Charging


### 2.3 DESCRIPTION OF TEST SETUP





## 2.4 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

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.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	POWER ADAPTER		HJ-0218A	HJ-0218AC, HJ-0218C	EUT

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	NO	

**Note:**

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” means “shielded” “with core”; “NO” means “unshielded” “without core”.

## 2.5 MEASUREMENT INSTRUMENTS LIST

### 2.5.1 CONDUCTED TEST SITE

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	LISN	R&S	ENV216	101313	Jul. 06, 2024	Jul. 05, 2025	1 year
2	LISN	SCHWARZBECK	NNLK 8129	8129245	Dec. 16, 2023	Dec. 15, 2024	1 year
3	Pulse Limiter	SCHWARZBECK	VTSD 9561F	9716	Dec. 16, 2023	Dec. 15, 2024	1 year
4	50Ω Switch	ANRITSU CORP	MP59B	6200983704	Jul. 06, 2024	Jul. 05, 2025	1 year
5	Test Cable	N/A	C01	N/A	Jul. 06, 2024	Jul. 05, 2025	1 year
6	Test Cable	N/A	C02	N/A	Jul. 06, 2024	Jul. 05, 2025	1 year
7	Test Cable	N/A	C03	N/A	Jul. 06, 2024	Jul. 05, 2025	1 year
8	EMI Test Receiver	R&S	ESCI	101160	Jul. 06, 2024	Jul. 05, 2025	1 year
9	Passive Voltage Probe	ESH2-Z3	R&S	100196	Jul. 06, 2024	Jul. 05, 2025	1 year
10	Triple-Loop Antenna	EVERFINE	LIA-2	11020003	Jul. 06, 2024	Jul. 05, 2025	1 year
11	Absorbing Clamp	R&S	MDS-21	100423	Jul. 06, 2024	Jul. 05, 2025	1 year

### 2.5.2 RADIATED TEST SITE

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Bilog Antenna	TESEQ	CBL6111D	31216	Jul. 06, 2024	Jul. 05, 2025	1 year
2	Test Cable	N/A	R-01	N/A	Dec. 16, 2023	Dec. 15, 2024	1 year
3	Test Cable	N/A	R-02	N/A	Dec. 16, 2023	Dec. 15, 2024	1 year
4	EMI Test Receiver	R&S	ESCI-7	101318	Jul. 06, 2024	Jul. 05, 2025	1 year
5	Antenna Mast	EM	SC100_1	N/A	N/A	N/A	N/A
6	Turn Table	EM	SC100	060531	N/A	N/A	N/A
7	50Ω Switch	Anritsu Corp	MP59B	6200983705	Jul. 06, 2024	Jul. 05, 2025	1 year
8	Spectrum Analyzer	Aglient	E4407B	MY45108040	Jul. 06, 2024	Jul. 05, 2025	1 year
9	Horn Antenna	EM	EM-AH-10180	2011071402	Jul. 06, 2024	Jul. 05, 2025	1 year
10	Amplifier	EM	EM-30180	060538	Jul. 06, 2024	Jul. 05, 2025	1 year

### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

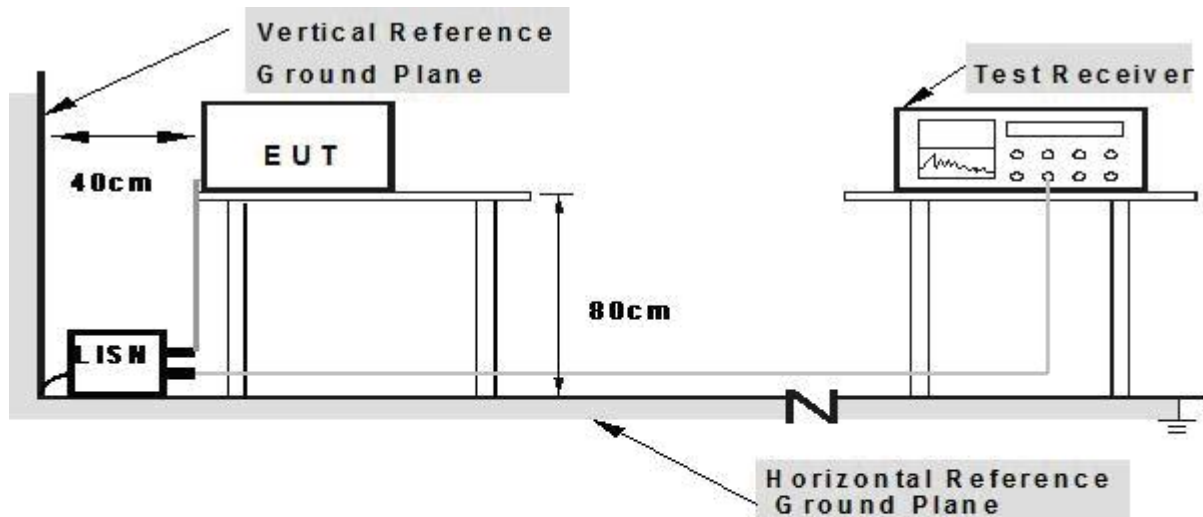
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

### 3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.1.3 TEST SETUP



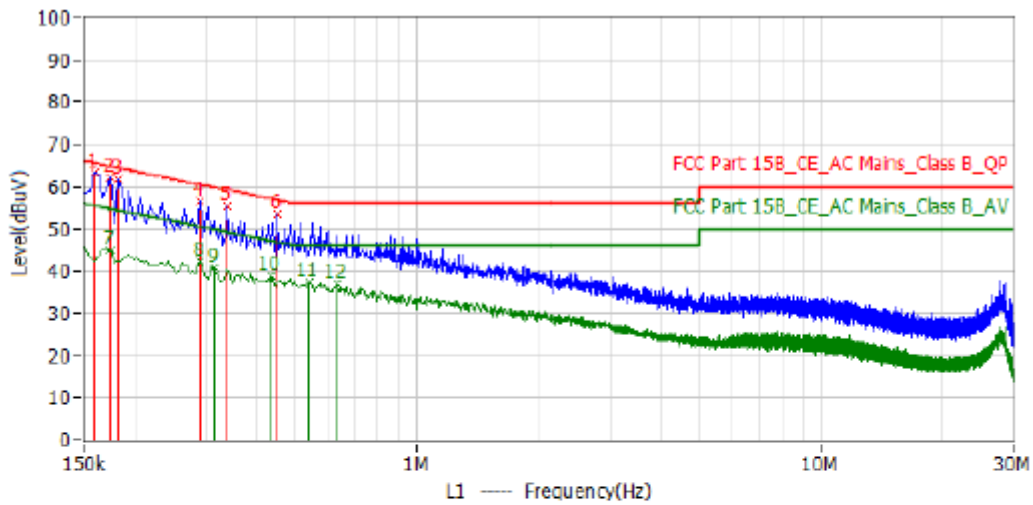
- Note: 1. Support units were connected to second LISN.**
- 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

### 3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

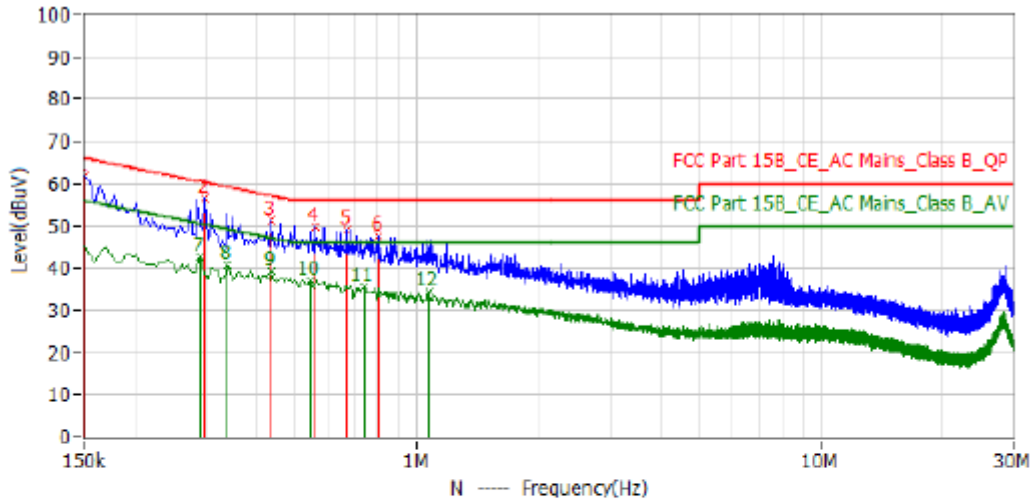
### 3.1.5 TEST RESULTS

EUT :	POWER ADAPTER	Model Name. :	HJ-0218A
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2024-09-23
Test Mode :	Charging	Polarization :	L
Test Voltage :	AC 120V/50Hz		



No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1*	158.000kHz	65.57	63.39	-2.18	53.43	9.96	PK	L1
2*	174.000kHz	64.77	62.18	-2.59	52.03	10.15	PK	L1
3*	182.000kHz	64.39	61.69	-2.70	51.53	10.16	PK	L1
4*	290.000kHz	60.52	56.64	-3.88	46.75	9.89	PK	L1
5*	338.000kHz	59.25	55.31	-3.94	45.37	9.94	PK	L1
6*	450.000kHz	56.88	53.48	-3.40	43.45	10.03	PK	L1
7*	174.000kHz	54.77	45.10	-9.67	34.95	10.15	AV	L1
8*	290.000kHz	50.52	42.36	-8.16	32.47	9.89	AV	L1
9*	314.000kHz	49.86	40.66	-9.20	30.74	9.92	AV	L1
10*	434.000kHz	47.18	38.93	-8.25	28.91	10.02	AV	L1
11*	542.000kHz	46.00	37.47	-8.53	27.42	10.05	AV	L1
12*	634.000kHz	46.00	36.93	-9.07	26.92	10.01	AV	L1

EUT :	POWER ADAPTER	Model Name. :	HJ-0218A
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2024-09-23
Test Mode :	Charging	Polarization :	N
Test Voltage :	AC 120V/50Hz		



No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1*	150.000kHz	66.00	61.70	-4.30	52.10	9.60	PK	N
2*	298.000kHz	60.30	56.39	-3.91	46.40	9.99	PK	N
3*	434.000kHz	57.18	51.23	-5.95	41.23	10.00	PK	N
4*	558.000kHz	56.00	49.92	-6.08	39.93	9.99	PK	N
5*	670.000kHz	56.00	49.24	-6.76	39.29	9.95	PK	N
6*	802.000kHz	56.00	47.44	-8.56	37.53	9.91	PK	N
7*	290.000kHz	50.52	42.51	-8.01	32.52	9.99	AV	N
8*	338.000kHz	49.25	40.89	-8.36	30.90	9.99	AV	N
9*	434.000kHz	47.18	39.48	-7.70	29.48	10.00	AV	N
10*	546.000kHz	46.00	37.01	-8.99	27.02	9.99	AV	N
11*	738.000kHz	46.00	35.47	-10.53	25.54	9.93	AV	N
12*	1.070MHz	46.00	34.31	-11.69	24.47	9.84	AV	N

### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 3 )
	dBuV/m	dBuV/m
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

Notes:

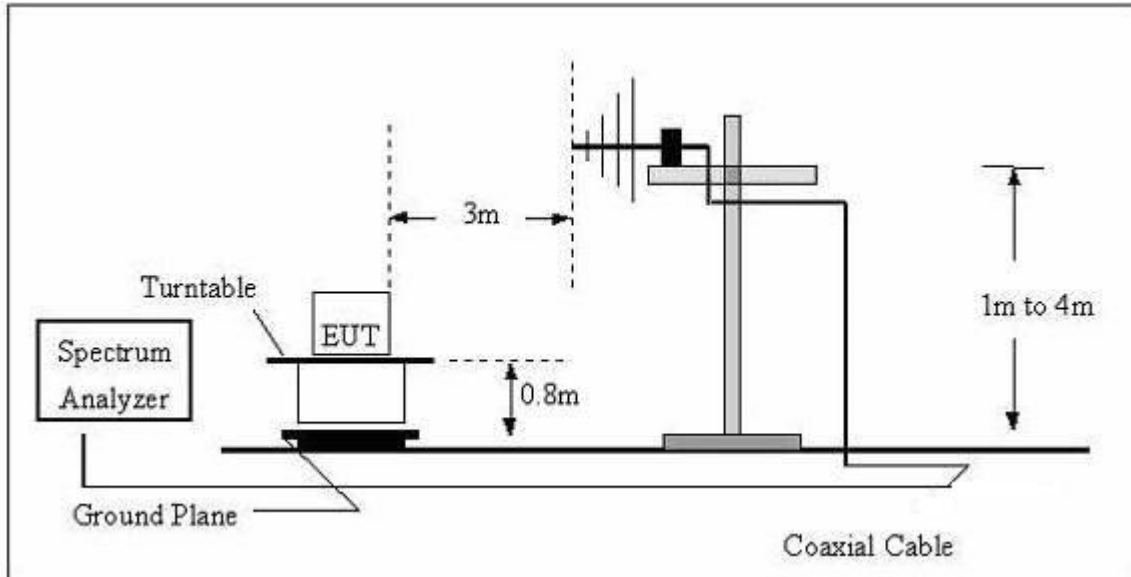
- (1) The limit for radiated test was performed according to as following:  
FCC PART 15B /ICES-003.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

#### 3.2.2 TEST PROCEDURE

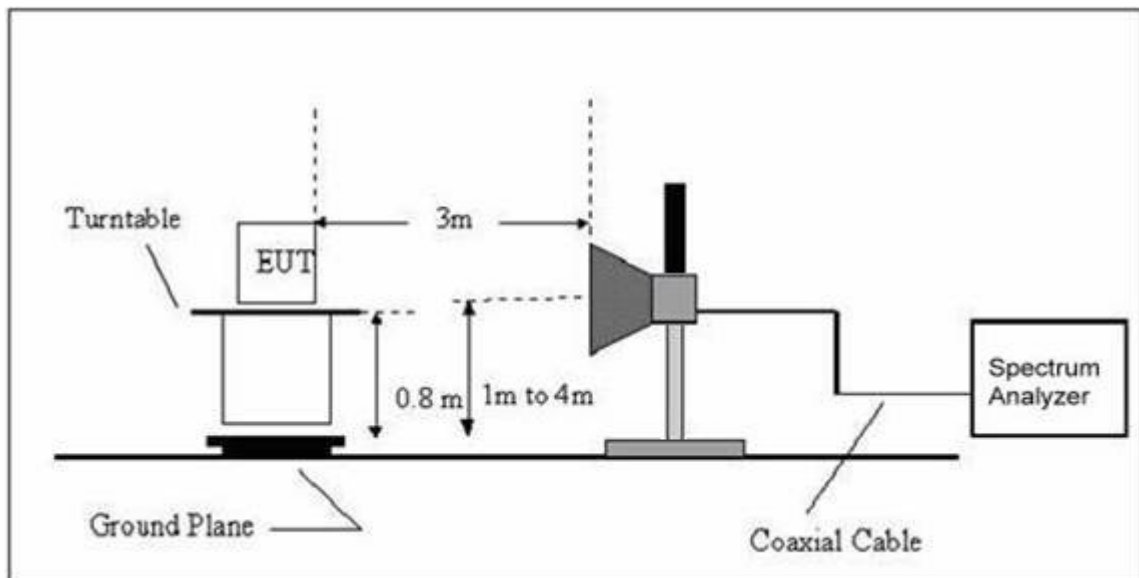
- a. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP(AV) Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.2.3 TEST SETUP

#### (A) Radiated Emission Test Set-Up Frequency Below 1 GHz



#### (B) Radiated Emission Test Set-Up Frequency Above 1GHz



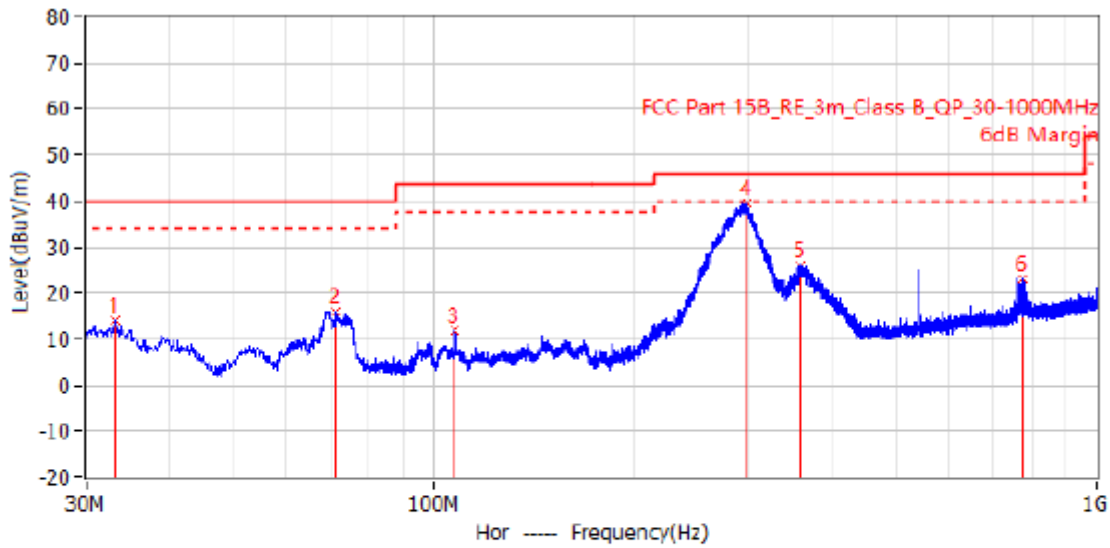
### 3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



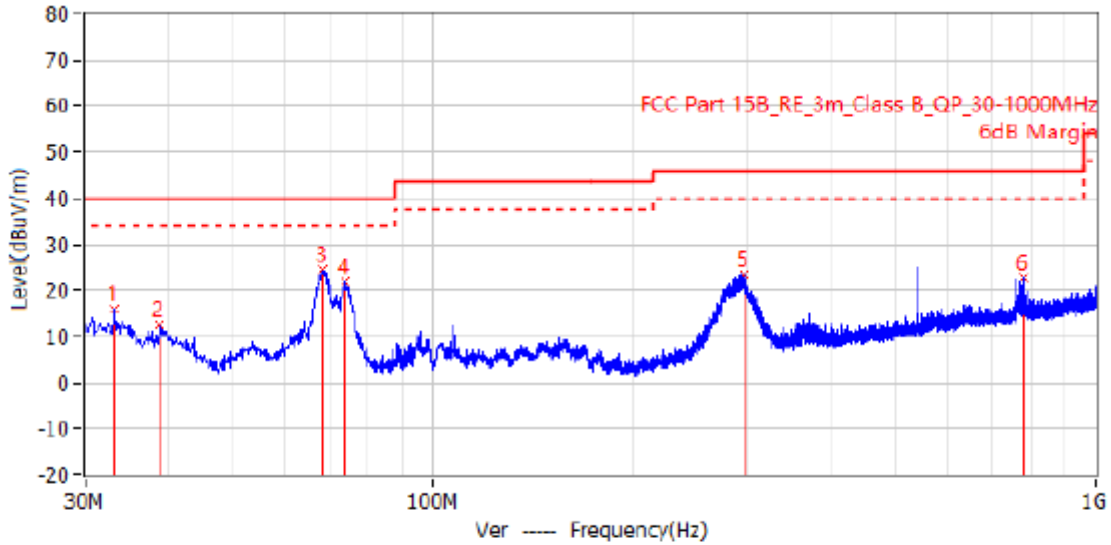
### 3.2.5 TEST RESULTS

EUT :	POWER ADAPTER	Model Name. :	HJ-0218A
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2024-09-23
Charging	Charging	Polarization :	Horizontal
Test Power :	AC 120V/50Hz		



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1*	33.153MHz	40.0	14.0	-26.0	27.6	-13.6	PK	Hor	100.0	69.0
2*	71.468MHz	40.0	16.1	-23.9	34.1	-18.0	PK	Hor	100.0	0.0
3*	107.964MHz	43.5	11.7	-31.8	32.8	-21.1	PK	Hor	100.0	0.0
4*	297.114MHz	46.0	39.7	-6.3	57.4	-17.7	PK	Hor	100.0	0.0
5*	357.618MHz	46.0	26.1	-19.9	42.2	-16.1	PK	Hor	100.0	0.0
6*	774.960MHz	46.0	23.2	-22.8	31.4	-8.2	PK	Hor	100.0	0.0

EUT :	POWER ADAPTER	Model Name. :	HJ-0218A
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2024-09-23
Test Mode :	Charging	Polarization :	Vertical
Test Power :	AC 120V/50Hz		



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1*	33.274MHz	40.0	16.0	-24.0	29.7	-13.7	PK	Ver	100.0	184.0
2*	38.851MHz	40.0	12.4	-27.6	28.1	-15.7	PK	Ver	100.0	50.0
3*	68.315MHz	40.0	24.4	-15.6	41.8	-17.4	PK	Ver	100.0	100.0
4*	74.014MHz	40.0	22.0	-18.0	41.2	-19.2	PK	Ver	100.0	0.0
5*	294.931MHz	46.0	23.4	-22.6	41.2	-17.8	PK	Ver	100.0	318.0
6*	777.991MHz	46.0	22.7	-23.3	30.9	-8.2	PK	Ver	100.0	250.0

3.2.6 TEST RESULTS(Above 1GHz)

EUT :	POWER ADAPTER	Model Name. :	HJ-0218A
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	N/A
Test Mode :	N/A	Polarization :	N/A
Test Power :	N/A		

**4.EUT OF PHOTO**

Photo of Radiated Measurement

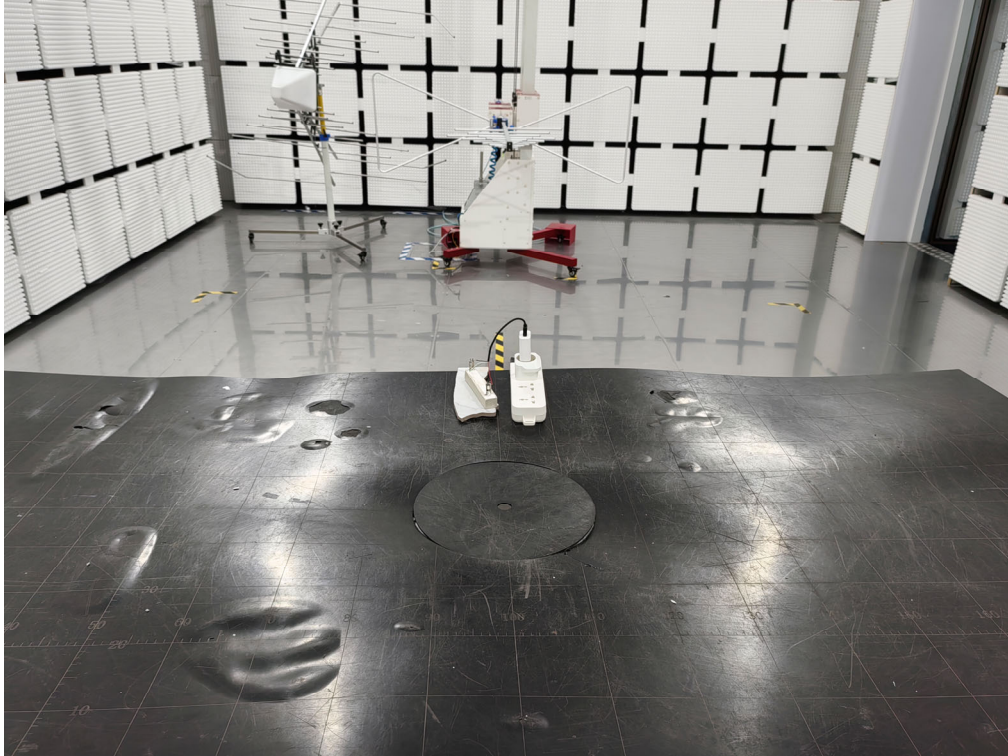
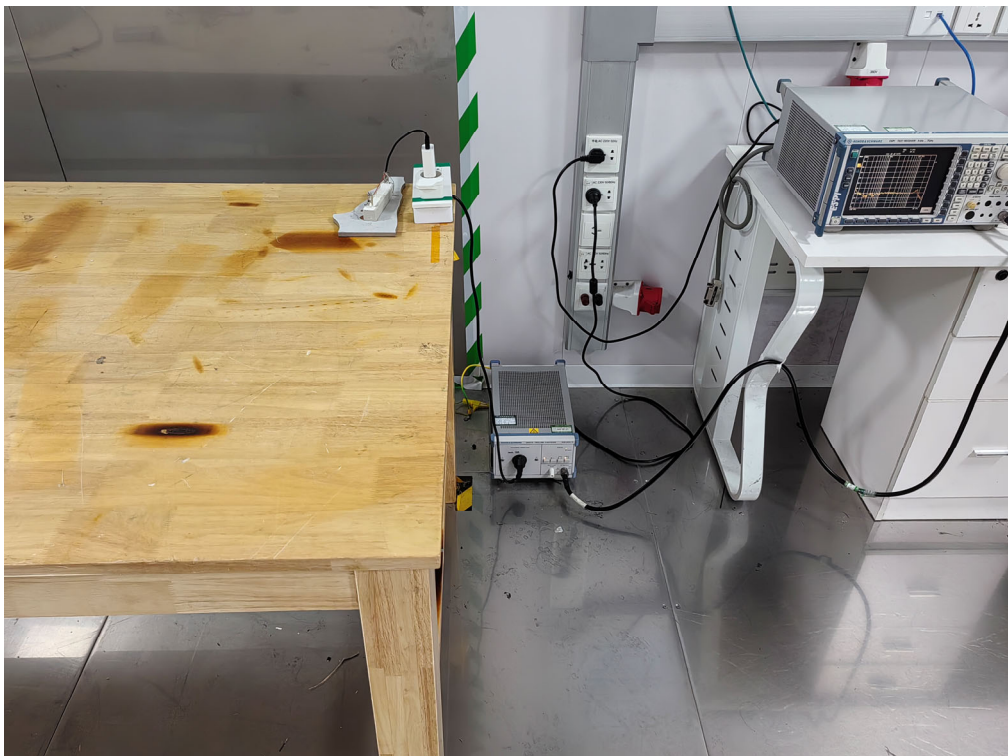


Photo of Conducted Measurement



**5. ATTACHMENT PHOTOGRAPHS OF EUT**

Photo 1



Photo 2

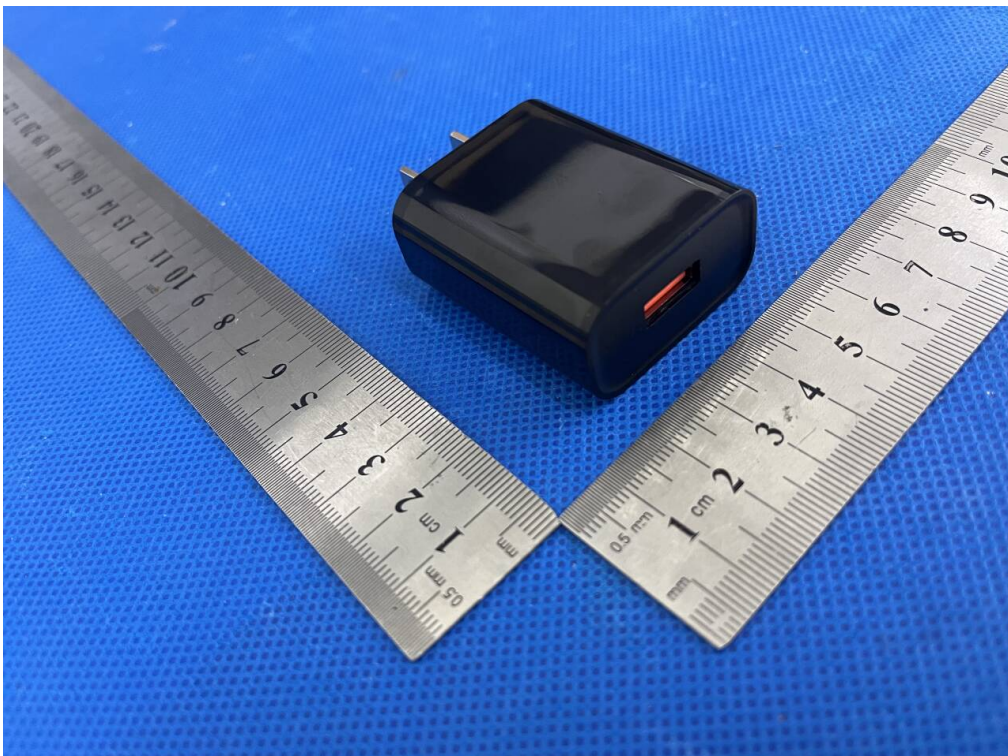


Photo 3



Photo 4

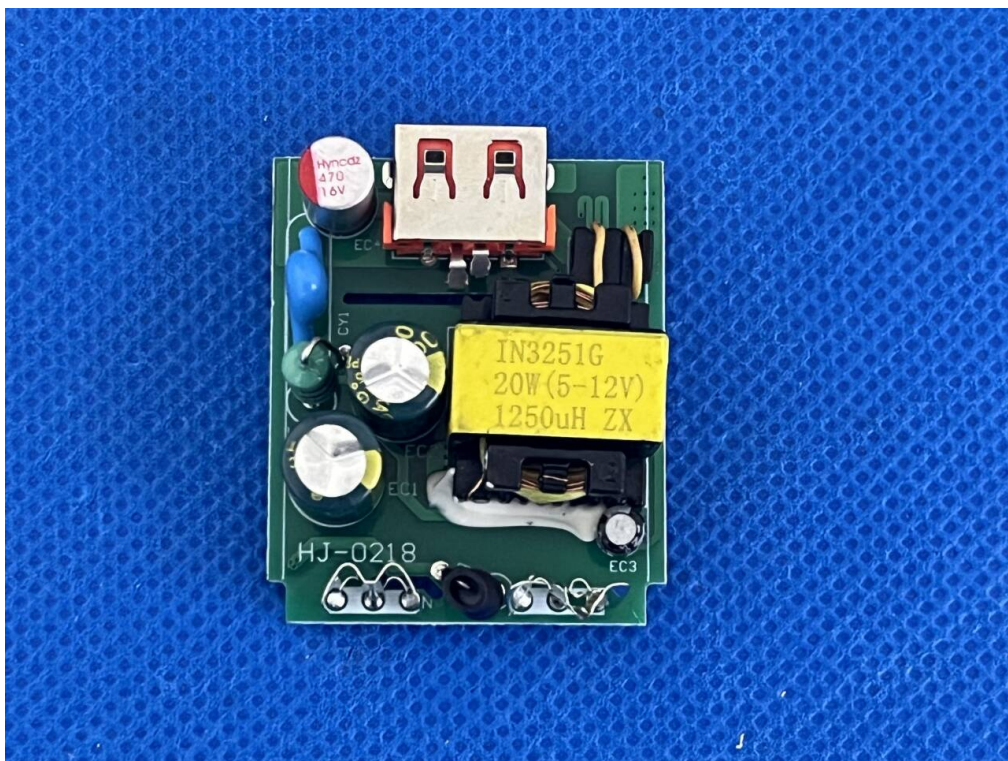


Photo 5

