



FCC TEST REPORT


Report Reference No..... : ZKT-220314L1672E
Date of issue..... : Mar. 11, 2022
Total number of pages..... : 17
Testing Laboratory..... : **Shenzhen ZKT Technology Co., Ltd.**
Address..... : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen,China

Applicant's name..... : **GuangZhou Ostec Electronic Technology Co.,Limited**
Address..... : 2of No.8, West Lane, Jiangcheng Road, Bangjiang East Village, Dalong Street, Panyu District, Guangzhou City, Guangdong, P.R.China

Test specification:
Standards..... : FCC Part 15 B
 ANSI C63.4:2014+A1:2017
Test procedure..... : N/A
Non-standard test method..... : N/A

Test Report Form No..... : --
Test Report Form(s) Originator..... : ZKT Testing
Master TRF..... : Dated: 2017-06

This test report is specially limited to the above client company and product model only. It may not be duplicated without prior written consent of ZKT Test.

Test item description..... : **Display Camera**
Trade Mark..... : 
Manufacturer..... : GuangZhou Ostec Electronic Technology Co.,Limited
 2of No.8, West Lane, Jiangcheng Road, Bangjiang East Village, Dalong Street, Panyu District, Guangzhou City, Guangdong, P.R.China
Model/Type reference..... : ME02T0B
 ME02T0A, ME02T0C, ME02T0D, ME02T0E, ME08T0A, ME08T0B, ME08T0C, ME08T0D, ME08T0E, ME20T0A, ME20T0B, ME20T0C, ME20T0D, ME20T0E, MN02T0A, MN02T0B, MN02T0C, MN02T0D, MN02T0E, MN08T0A, MN08T0B, MN08T0C, MN08T0D, MN08T0E, MN20T0A, MN20T0B, MN20T0C, MN20T0D, MN20T0E
Ratings..... : Input voltage: DC 12V 3A, 36W (Powered by adapter)
 Adapter: 100-240V~ 50/60Hz



Testing procedure and testing location:

Testing Laboratory.....: Shenzhen ZKT Technology Co., Ltd.

Address.....: 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen,China

Date of Test.....: Mar. 03, 2022 - Mar. 11, 2022

Tested by (name + signature).....: Alen He

Reviewer (name + signature).....: Joe Liu

Approved (name + signature).....: Lake Xie





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1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT : Display Camera

Trademark :

KoPa[®]

Model Number : ME02T0B
ME02T0A, ME02T0C, ME02T0D, ME02T0E, ME08T0A,
ME08T0B, ME08T0C, ME08T0D, ME08T0E, ME20T0A,
MN02T0A, MN02T0B, MN02T0C, MN02T0D, MN02T0E, MN08T0A,
MN08T0B, MN08T0C, MN08T0D, MN08T0E, MN20T0A,
MN20T0B, MN20T0C, MN20T0D, MN20T0E

Model Difference : Model name

Power Supply : Input voltage: DC 12V 3A, 36W (Powered by adapter)
Adapter: 100-240V~ 50/60Hz

1.2. Tested System Details

None.

1.3. Test Uncertainty

Conducted Emission Uncertainty : ± 1.82 dB

Radiated Emission Uncertainty : ± 2.51 dB



2. TEST INSTRUMENT USED

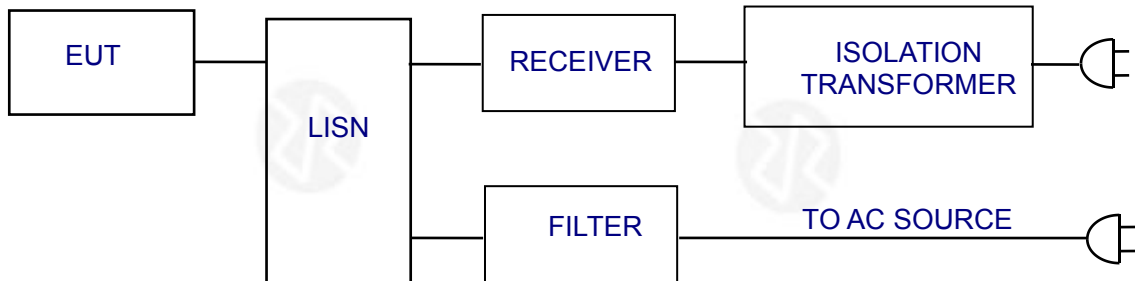
Conducted emissions Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Receiver	R&S	ESR	102075	June.26 2021	June.25 2022
LISN	R&S	ENV216	101375	June.26 2021	June.25 2022
ISN	HPX	ISN T800	S1509001	June.26 2021	June.25 2022

Radiated emissions Test (966 chamber)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	June.26 2021	June.25 2022
Receiver	R&S	ESRP	101154	June.26 2021	June.25 2022
Amplifier	Schwarzbeck	BBV9718	9718-309	June.26 2021	June.25 2022
Amplifier	Schwarzbeck	BBV9744	9744-0037	June.26 2021	June.25 2022
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	VULB9163-94 2	June.26 2021	June.25 2022
Horn Antenna	SCHWARZB ECK	BBHA9120D	1201	June.26 2021	June.25 2022



3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

3.1. Block Diagram Of Test Setup



3.2. Test Standard

FCC PART 15 B

3.3. Power Line Conducted Emission Limit

Frequency MHz	Limits dB(μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet FCC PART 15 B requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

3.5. Operating Condition of EUT

- 3.5.1 Setup the EUT and simulators as shown in Section 3.1.
- 3.5.2 Turn on the power of all equipments.
- 3.5.3 Let the EUT work in test modes and test it.



3.6. Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the **FCC PART 15 B** regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 10KHz.

The frequency range from 150 KHz to 30 MHz is investigated.

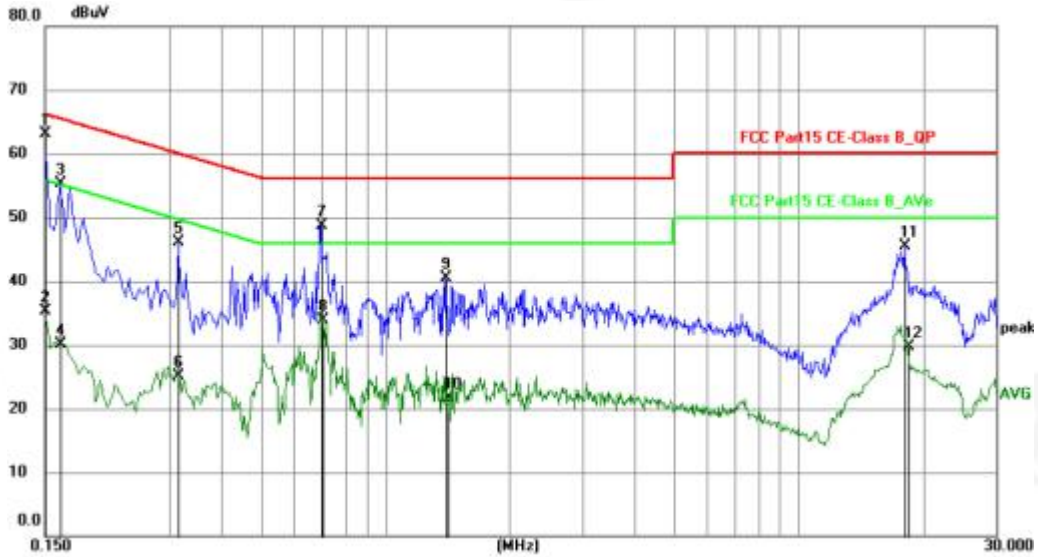
3.7. Test Result

PASS

Please refer to the following page.



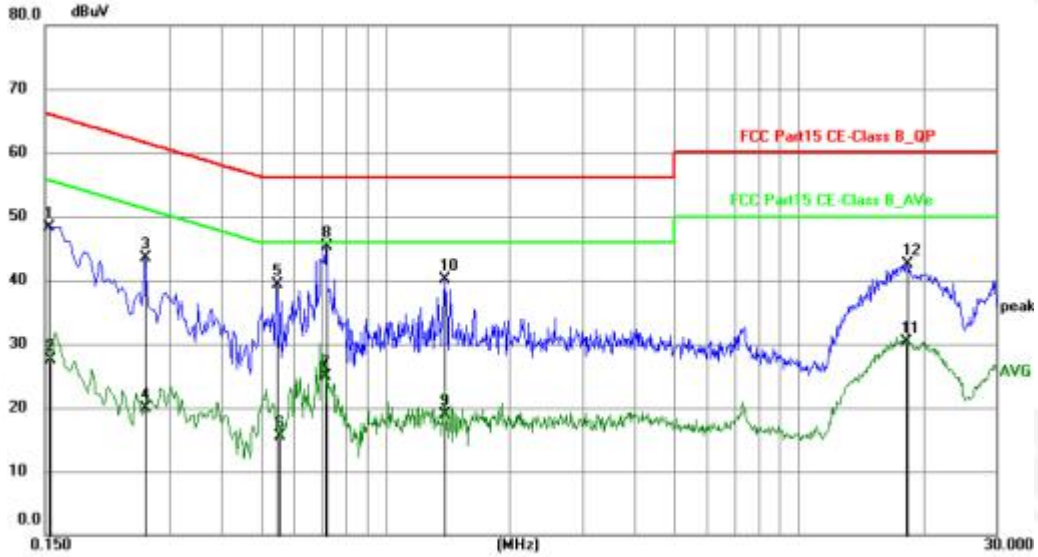
Disturbance voltages at the Mains Ports Test Data			
Temperature:	25.6 °C	Relative Humidity:	50%
Pressure:	1010hPa	Phase :	Live
Test Voltage :	AC 120V/60Hz	Test Mode:	Normal mode



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	50.04	13.01	63.05	66.00	-2.95	QP	P	
2	0.1500	22.25	13.01	35.26	56.00	-20.74	AVG	P	
3	0.1635	42.55	12.71	55.26	65.28	-10.02	QP	P	
4	0.1641	17.31	12.70	30.01	55.25	-25.24	AVG	P	
5	0.3165	34.68	11.39	46.07	59.80	-13.73	QP	P	
6	0.3166	13.63	11.39	25.02	49.80	-24.78	AVG	P	
7	0.6990	38.30	10.50	48.80	56.00	-7.20	QP	P	
8	0.7035	23.39	10.50	33.89	46.00	-12.11	AVG	P	
9	1.3965	30.18	10.34	40.52	56.00	-15.48	QP	P	
10	1.4144	11.45	10.34	21.79	46.00	-24.21	AVG	P	
11	18.0555	35.87	9.59	45.46	60.00	-14.54	QP	P	
12	18.3435	20.06	9.63	29.69	50.00	-20.31	AVG	P	



Disturbance voltages at the Mains Ports Test Data			
Temperature:	25.6 °C	Relative Humidity:	50%
Pressure:	1010hPa	Phase :	Neutral
Test Voltage :	AC 120V/60Hz	Test Mode:	Normal mode

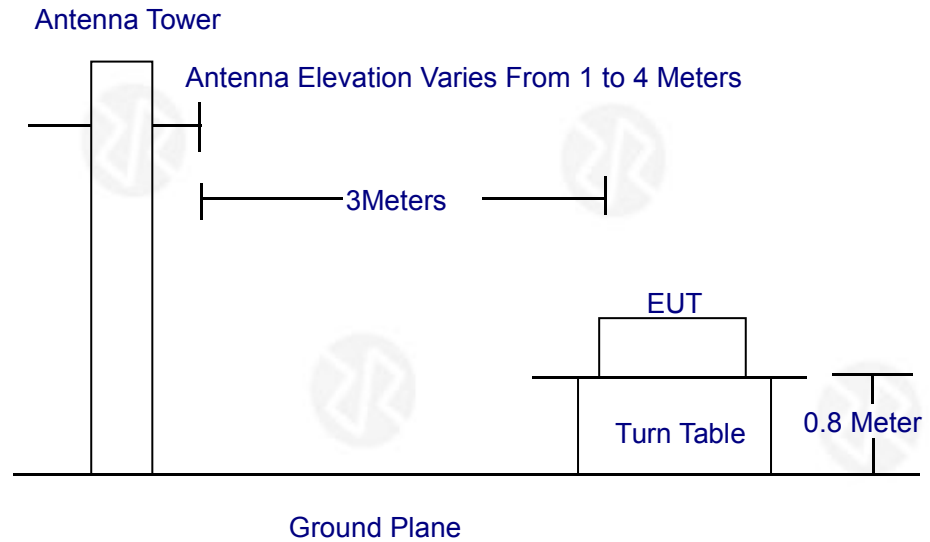


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1532	35.38	12.94	48.32	65.82	-17.50	QP	P	
2	0.1548	14.61	12.90	27.51	55.74	-28.23	AVG	P	
3	0.2625	31.83	11.63	43.46	61.35	-17.89	QP	P	
4	0.2625	8.28	11.63	19.91	51.35	-31.44	AVG	P	
5	0.5460	28.84	10.53	39.37	56.00	-16.63	QP	P	
6	0.5550	5.01	10.53	15.54	46.00	-30.46	AVG	P	
7	0.7125	14.43	10.50	24.93	46.00	-21.07	AVG	P	
8	0.7170	34.73	10.50	45.23	56.00	-10.77	QP	P	
9	1.3875	8.61	10.34	18.95	46.00	-27.05	AVG	P	
10	1.3920	29.77	10.34	40.11	56.00	-15.89	QP	P	
11	18.2220	20.69	9.61	30.30	50.00	-19.70	AVG	P	
12	18.2939	32.86	9.62	42.48	60.00	-17.52	QP	P	



4. RADIATION EMISSION TEST

4.1. Block Diagram of Test Setup



4.2. Test Standard

FCC PART 15 B

4.3. Radiation Limit

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB μ V/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

4.4. EUT Configuration on Test

The FCC PART 15 B regulations test method must be used to find the maximum emission during radiated emission test.

The configuration of EUT is the same as used in conducted emission test. Please refer to Section 2.2.

4.5. Operating Condition of EUT

Same as conducted emission test, which is listed in Section 2.2 except the test set up replaced as Section 4.1.



4.6. Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to FCC PART 15 B on radiated emission test.

The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz below 1GHz, set at 1MHz above 1GHz

The frequency range from 30MHz to 1000MHz is checked.

The highest frequency of the internal sources of the EUT was below 108MHz, so the measurement was only made up to 1GHz.

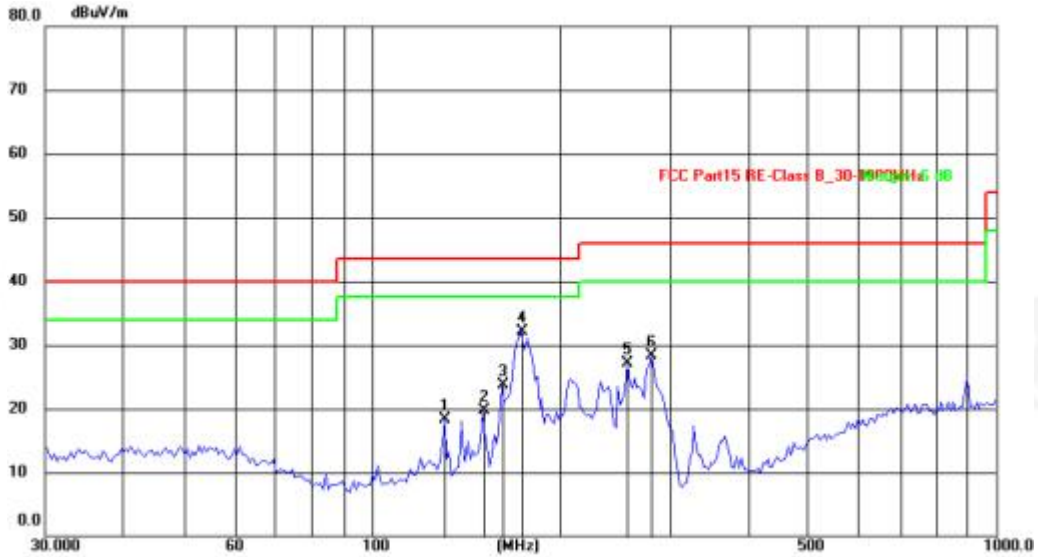
4.7. Test Result

PASS

Please refer to the following page.



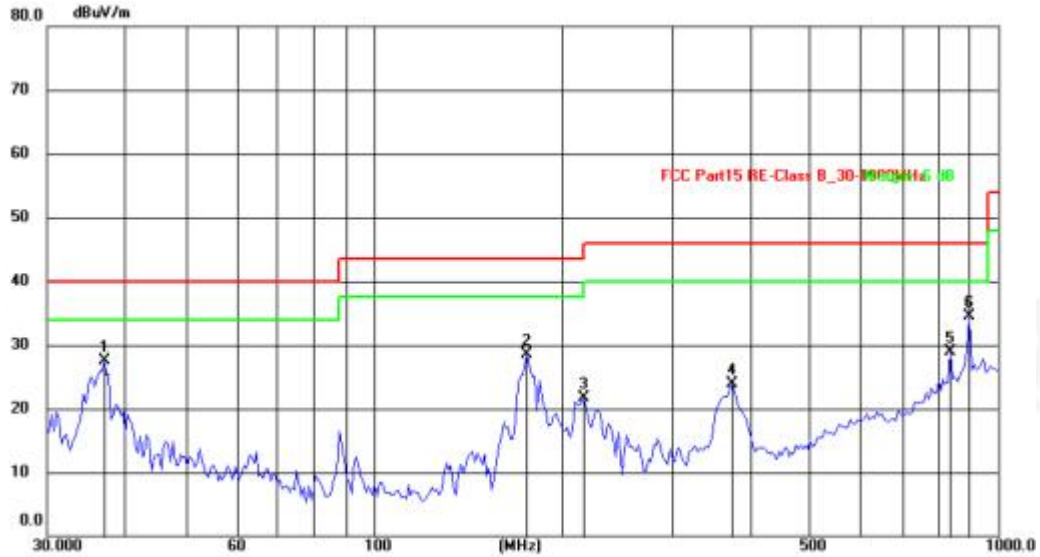
Radiation Emission Test Data			
Temperature:	26.2°C	Relative Humidity:	47%
Pressure:	1010hPa	Phase :	Horizontal
Test Voltage :	AC 120V/60Hz	Test Mode:	Normal mode



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	130.8369	36.27	-17.99	18.28	43.50	-25.22	QP				
2	150.5378	36.72	-17.05	19.67	43.50	-23.83	QP				
3	161.4742	40.55	-16.93	23.62	43.50	-19.88	QP				
4	173.2051	50.21	-18.01	32.20	43.50	-11.30	QP				
5	256.9712	44.29	-17.24	27.05	46.00	-18.95	QP				
6	280.5152	44.45	-16.22	28.23	46.00	-17.77	QP				



Radiation Emission Test Data			
Temperature:	26.2°C	Relative Humidity:	47%
Pressure:	1010hPa	Phase :	Vertical
Test Voltage :	AC 120V60Hz	Test Mode:	Normal mode



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	37.0248	44.84	-17.31	27.53	40.00	-12.47	QP				
2	176.2686	49.13	-20.67	28.46	43.50	-15.04	QP				
3	217.5443	43.30	-21.60	21.70	46.00	-24.30	QP				
4	374.6225	41.74	-17.87	23.87	46.00	-22.13	QP				
5	839.1818	33.41	-4.47	28.94	46.00	-17.06	QP				
6	900.1474	37.28	-2.74	34.54	46.00	-11.46	QP				

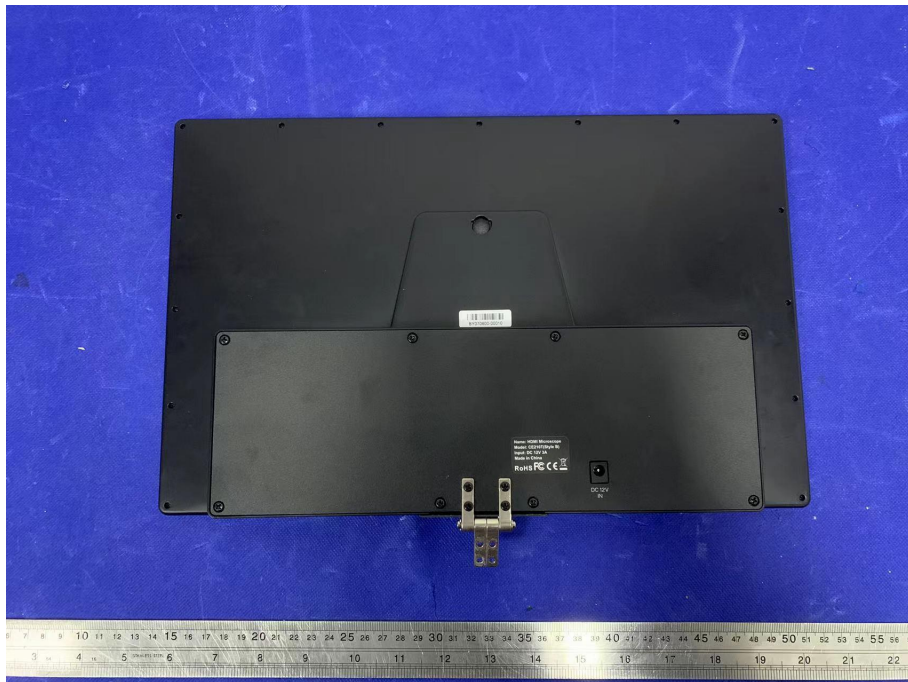


5. EUT PHOTOGRAPHS

EUT Photo 1



EUT Photo 2





EUT Photo 3



EUT Photo 4





EUT Photo 5



EUT Photo 6



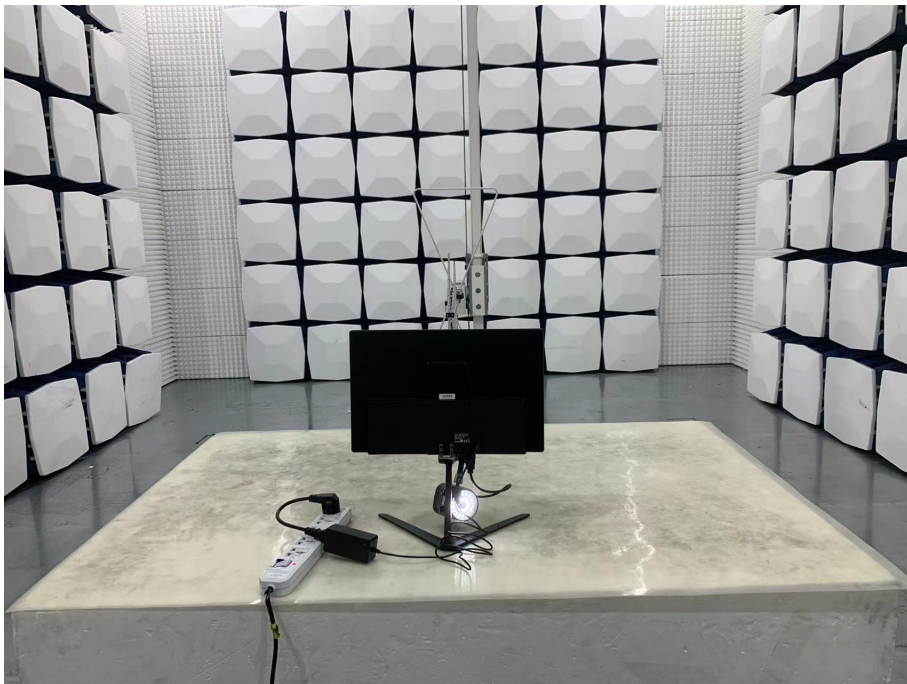


6. PHOTOS OF TEST SETUP

CE:



RE:



***** END OF REPORT *****