

FCC TEST REPORT

For
HUAUHONGBO TRAVEL ELECTRONIC TECHNOLOGY CO.LTD.

Product Name : 3D Printer

Trademark : JuXinAdditive

Model Number : JX215
LD180S,LD180R,JX130,LD180S+,LD180R+,JX215+

Prepared For : HUAUHONGBO TRAVEL ELECTRONIC
TECHNOLOGY CO.LTD.

Address : Room 418,No.39 Keji Dong Lu,Zhongshan Torch
Development Zone

Report No. : LST181168050FR-1

Testing laboratory : Shenzhen LST Technology Co., Ltd.

Address : Huichao Building, Yintian Industry zone, Bao'an
District, Shenzhen, Guangdong P.R. China

Shenzhen LST Testing Co., Ltd.

Applicant : HUAUHONGBO TRAVEL ELECTRONIC TECHNOLOGY CO.LTD.
Address : Room 418, No.39 Keji Dong Lu, Zhongshan Torch Development Zone
Manufacturer : HUAUHONGBO TRAVEL ELECTRONIC TECHNOLOGY CO.LTD.
Address : Room 418, No.39 Keji Dong Lu, Zhongshan Torch Development Zone
EUT : 3D Printer
Model Number : JX215 ,
Trademark: : JuXinAdditive
Test Date : Oct. 22, 2018 - Oct. 26, 2018
Date of Report : Oct. 26, 2018
Test Result: : The equipment under test was found to be compliance with the requirements of the standards applied.

Test Procedure Used:

FCC Part 15 B

ANSI C63.4:2014

Tested by (name + signature):

Reviewed by (name + signature):

Approved by (name + signature):



This test report is based on a single evaluation of one sample of above mentioned products. The test results in the report only apply to the tested sample. It is not permitted to be duplicated in extracts without written approval of Shenzhen LST Technology Co., Ltd.

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT : 3D Printer
Trademark : JuXinAdditive
Model Number : JX215
Power Supply INPUT 24V, 6A, 144W

1.2. Tested System Details

None.

1.3. Test Uncertainty

Conducted Emission : ± 1.82 dB
Uncertainty

Radiated Emission Uncertainty : ± 2.51 dB

1.4. Test Facility

Site Description :

Name of Firm : Shenzhen LST Technology Co., Ltd.

Address : Huichao Building, Yintian Industry zone, Bao'an
District, Shenzhen, Guangdong P.R. China

2. TEST INSTRUMENT USED

For Conducted Emission at the mains terminals Test

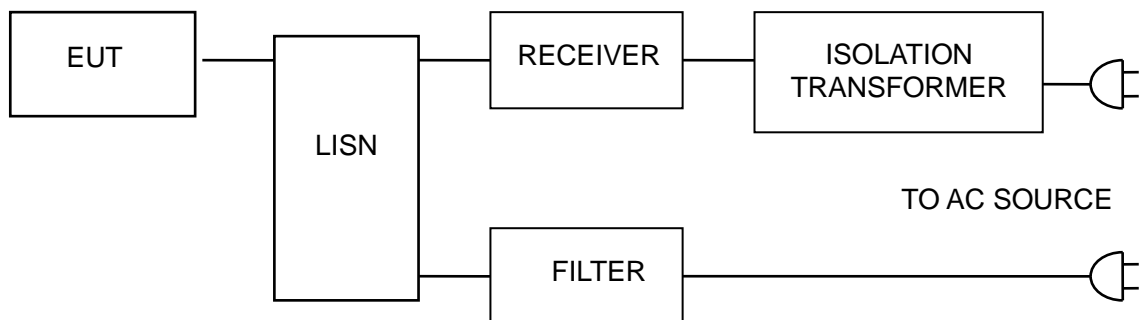
Conducted Emission Test (A --- site)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
843 Shielded Room	ChengYu	843 Room	843	Aug. 25, 2018	Aug. 24, 2019
EMI Receiver	R&S	ESCI	101421	Aug. 27, 2018	Aug. 26, 2019
LISN	Schwarzbeck	NSLK8127	8127739	Sep. 07, 2018	Sep. 06, 2019
Attenuator	R&S	ESH3-Z2	LST021E	Aug. 25, 2018	Aug. 24, 2019
843 Cable 1#	FUJIKURA	843C1#	001	Aug. 25, 2018	Aug. 24, 2019

For Radiated Emission Test

Radiation Emission Test (966 chamber)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	Aug. 25, 2018	Aug. 24, 2019
Spectrum Analyzer	Agilent	E4407B	MY45109572	Aug. 27, 2018	Aug. 26, 2019
Amplifier	Schwarzbeck	BBV9743	9743-119	Aug. 25, 2018	Aug. 24, 2019
Amplifier	Schwarzbeck	BBV9718	9718-270	Aug. 25, 2018	Aug. 24, 2019
Log-periodic Antenna	Schwarzbeck	VULB9160	VULB9160-3369	Sep. 07, 2018	Sep. 06, 2019
EMI Receiver	R&S	ESCI	101421	Aug. 27, 2018	Aug. 26, 2019
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1275	Aug. 25, 2018	Aug. 24, 2019
966 Cable 1#	CHENGYU	966	004	Aug. 25, 2018	Aug. 24, 2019
966 Cable 2#	CHENGYU	966	003	Aug. 25, 2018	Aug. 24, 2019

3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

1.1. Block Diagram Of Test Setup



1.2. Test Standard

FCC PART 15 B

1.3. Power Line Conducted Emission Limit

Frequency MHz	Limits dB(μV)	
	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.

1.4. 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.

1.5. 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.

1.6. 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.

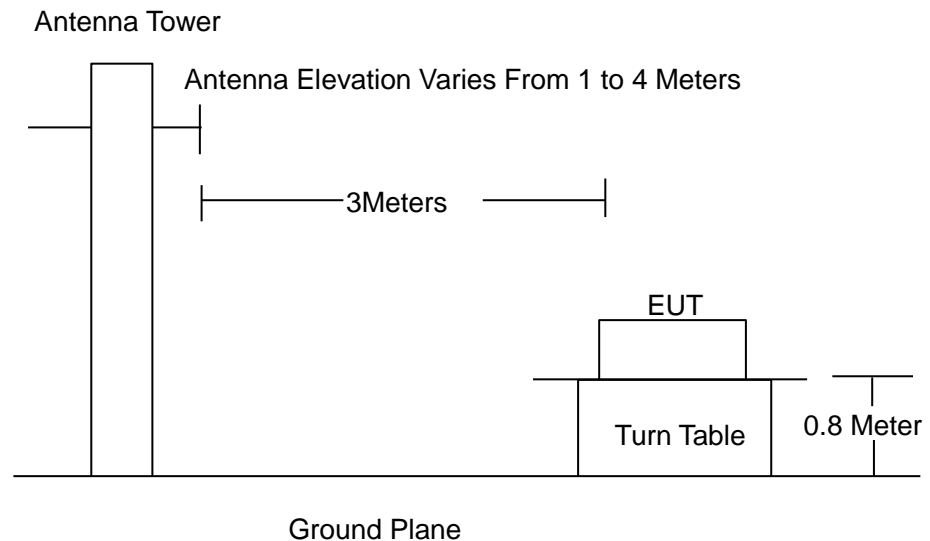
The frequency range from 150 KHz to 30 MHz is investigated.

1.7. Test Result

The EUT is powered by the DC only, the test item is not applicable.

4. RADIATION EMISSION TEST

2.1. Block Diagram of Test Setup



2.2. Test Standard

FCC PART 15 B

2.3. 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

2.4. 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.

2.5. 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.

2.6. 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.

2.7. Test Result

PASS

Please refer to the following page.

Radiation Emission Test Data

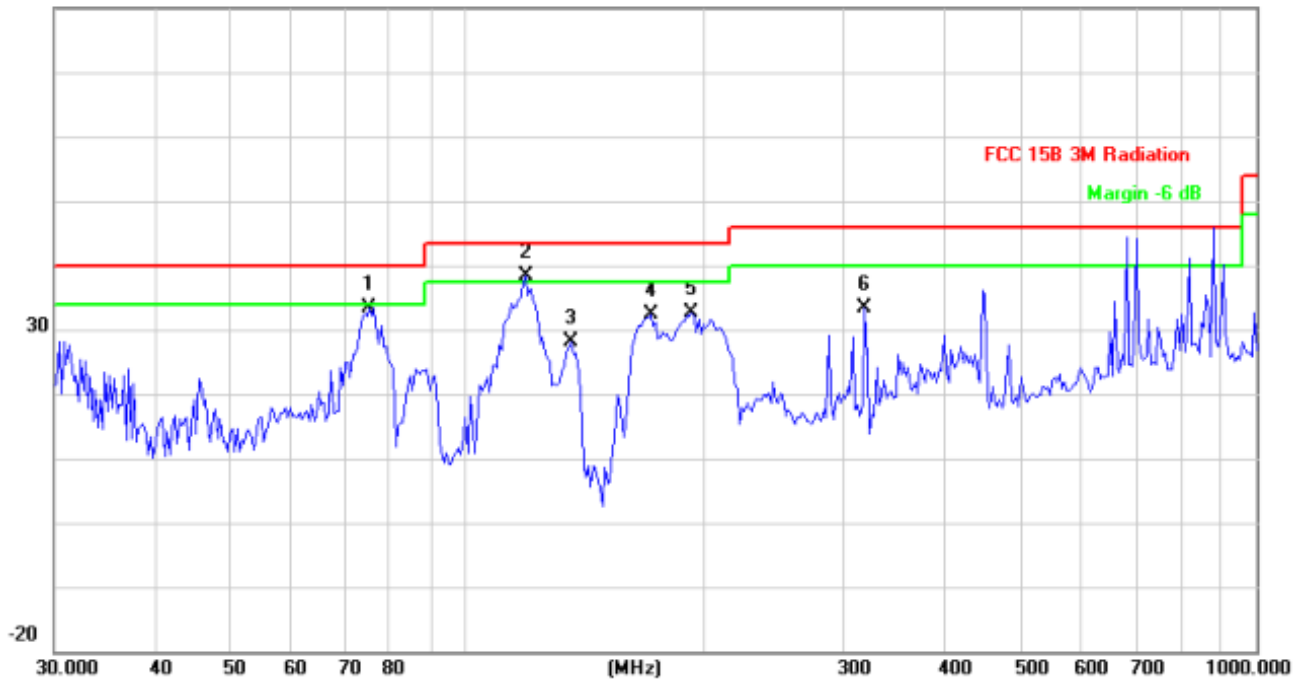
Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	DC 24V	Test Mode:	Data transmission

Radiated Emission Measurement

File :11

Data :#12

80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		75.1822	56.44	-22.99	33.45	40.00	-6.55	peak		
2	*	118.6013	60.57	-22.31	38.26	43.50	-5.24	peak		
3		135.5062	50.67	-22.47	28.20	43.50	-15.30	peak		
4		170.7925	52.86	-20.49	32.37	43.50	-11.13	peak		
5		192.4185	52.55	-19.85	32.70	43.50	-10.80	peak		
6		318.8170	49.02	-15.59	33.43	46.00	-12.57	peak		

*:Maximum data x:Over limit !:over margin

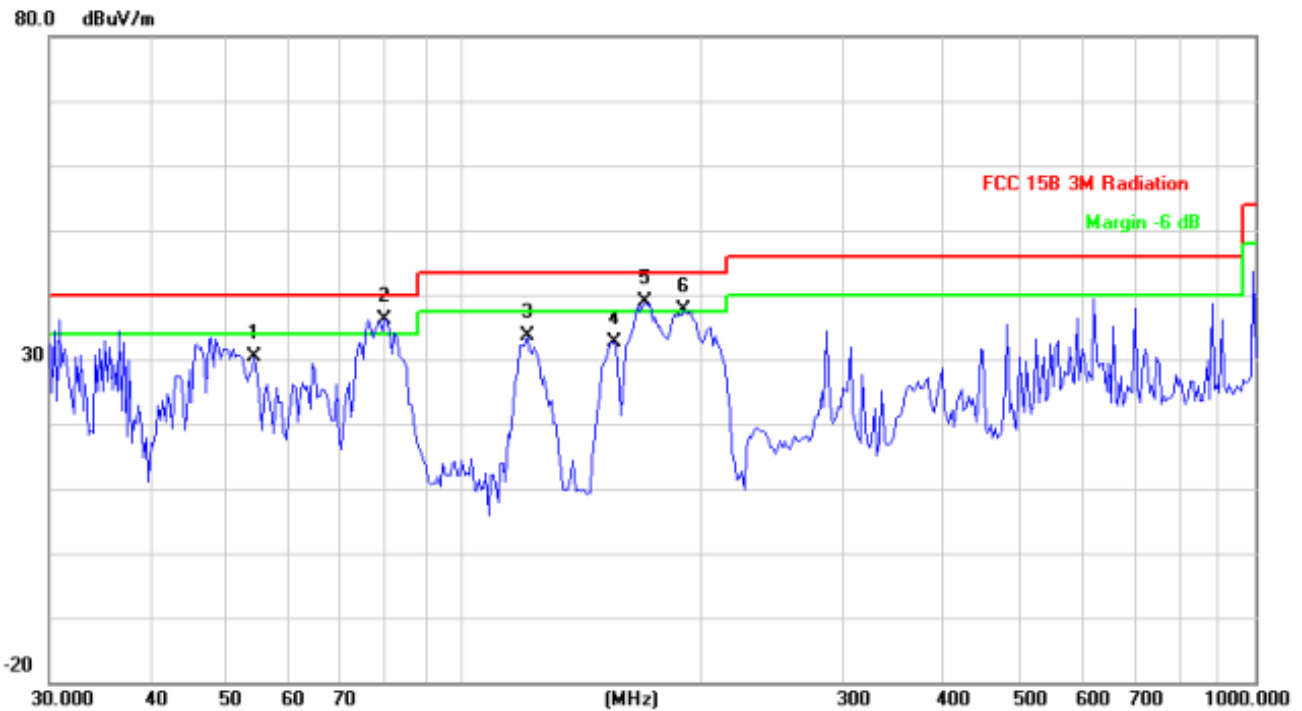
Radiation Emission Test Data

Temperature:	24.5 °C	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	DC 24V	Test Mode:	Data transmission

Radiated Emission Measurement

File :11

Data :#11



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		54.4515	54.22	-23.74	30.48	40.00	-9.52	peak		
2	*	79.5208	58.66	-22.57	36.09	40.00	-3.91	peak		
3		120.2766	55.89	-22.30	33.59	43.50	-9.91	peak		
4		154.8204	53.76	-21.16	32.60	43.50	-10.90	peak		
5	!	169.5989	59.52	-20.54	38.98	43.50	-4.52	peak		
6	!	189.7384	57.34	-19.83	37.51	43.50	-5.99	peak		

*:Maximum data x:Over limit !:over margin

ANNEX A: Photo-documentation

EUT Photo 1



EUT Photo 2



EUT Photo 3**EUT Photo 4 : JX130**

EUT Photo 5 : LD180R**EUT Photo 6 : LD180S**

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