



MPE Report

Report No.: STS2601319H01

Issued for

Shenzhen Anycubic Technology Co.,Ltd

Room 101-501, Building No.11, Yinhai Industrial Park, Yinhe
Community, Yuanshan Street, Longgang District, Shenzhen,
Guangdong, China

Product Name: 3D Printer

Brand Name: ANYCUBIC

Model Name: Anycubic Kobra S1 Max

Series Model(s): Anycubic Kobra S1 Max Combo

FCC ID: 2BOQB-S1M

Test Standard: FCC 47CFR §2.1091

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the ShenZhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name: Shenzhen Ayncubic Technology Co.,Ltd
Address: Room 101-501, Building No.11, Yinhai Industrial Park, Yinhe Community, Yuanshan Street, Longgang District, Shenzhen, Guangdong, China
Manufacturer's Name: Shenzhen Ayncubic Technology Co.,Ltd
Address: Room 101-501, Building No.11, Yinhai Industrial Park, Yinhe Community, Yuanshan Street, Longgang District, Shenzhen, Guangdong, China

Product Description

Product Name: 3D Printer
Brand Name: ANYCUBIC
Model Name: Ayncubic Kobra S1 Max
Series Model(s): Ayncubic Kobra S1 Max Combo
Test Standards: FCC 47CFR §2.1091
447498 D01 Interim General RF Exposure Guidance v06

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Date of Test:
Date of receipt of test item: 18 Dec. 2025
Date (s) of performance of tests: 18 Dec. 2025 to 29 Jan. 2026
Date of Issue: 29 Jan. 2026
Test Result: **Pass**

Testing Engineer : Aaron Bu

(Aaron Bu)

Technical Manager : Skylar Li

(Skylar Li)

Authorized Signatory : Bovey Yang

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	29 Jan. 2026	STS2601319H01	ALL	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	3D Printer	
Brand Name	ANYCUBIC	
Model Name	Anycubic Kobra S1 Max	
Series Model(s)	Anycubic Kobra S1 Max Combo	
Model Difference	All models are identical except for the model name, the test model is Anycubic Kobra S1 Max.	
Product Description	The EUT is a 3D Printer	
	Operation Frequency:	802.11b/g/n/ax 20: 2412~2462 MHz 802.11n/ax40:2422~2452MHz IEEE 802.11a/ n(HT20)/ac(VHT20)/ax(HE20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40)/ax(HE40): 5.190GHz-5.230GHz IEEE 802.11a/ n(HT20)/ac(VHT20)/ax(HE20): 5.260GHz-5.320GHz IEEE 802.11 n(HT40)/ac(VHT40)/ax(HE40): 5.270GHz-5.310GHz IEEE 802.11a/ n(HT20)/ac(VHT20)/ax(HE20): 5.500GHz-5.700GHz IEEE 802.11 n(HT40)/ac(VHT40)/ax(HE40): 5.510GHz-5.670GHz IEEE 802.11a/ n(HT20)/ac(VHT20)/ax(HE20): 5.745GHz-5.825GHz IEEE 802.11a/ n(HT40)/ac(VHT40)/ax(HE40): 5.755GHz-5.795GHz
	Modulation Type:	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11ax(OFDM, OFDMA): BPSK,QPSK,16-QAM,64-QAM,256-QAM, 1024QAM 802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM): BPSK,QPSK,16-QAM,64-QAM,256-QAM 802.11ax(OFDM, OFDMA): BPSK,QPSK,16-QAM,64-QAM,256-QAM, 1024QAM
	Antenna gain:	2.4G: 3.13 dBi 5.1G: 6.22 dBi 5.3G: 6.22 dBi 5.6G: 7.36 dBi 5.8G: 7.18 dBi
	Antenna Designation:	FPC Antenna



Power Rating	AC 100-120V, 200-240V 50/60Hz
Adapter	N/A
Battery	N/A
Hardware Version	N/A
Software Version	N/A

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01



2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
3.0-30	1842/f	4.89/f	*(900/f ²)
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1.34-30	824/f	2.19/f	*(180f ²)
1500 – 100000	--	--	1.0

F= Frequency in MHz

Friss Formula

Friss Transmission Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = Distance between observation point and the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.



2.3 TEST RESULT

Tune up

Mode	Detector	Tune up Power
WIFI 2.4G (802.11b)	AV	12±1dBm
WIFI 5.1G (802.11a)	AV	12±1dBm
WIFI 5.3G (802.11a)	AV	12±1dBm
WIFI 5.6G (802.11a)	AV	14±1dBm
WIFI 5.8G (802.11a)	AV	13±1dBm

Protocol	Fre. (GHz)	Separation distance (cm)	Max Tune up power (dBm)	ANT Gain (dBi)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Ratio	Result
WIFI 2.4G (802.11b)	2.462	20	13	3.13	16.13	41.02	0.0082	1	/	Pass
WIFI 5.1G (802.11a)	5.24	20	13	6.22	19.22	83.56	0.0166	1	/	Pass
WIFI 5.3G (802.11a)	5.32	20	13	6.22	19.22	83.56	0.0166	1	/	Pass
WIFI 5.6G (802.11a)	5.7	20	15	7.36	22.36	172.187	0.0343	1	/	Pass
WIFI 5.8G (802.11a)	5.825	20	14	7.18	21.18	131.22	0.0261	1	/	Pass

Multiple transmission:

- Note: 1. The Maximum power is less than the limit, complies with the exemption requirements.
2. The WLAN 2.4GHz and WLAN 5GHz can't simultaneous transmission at the same time.

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