



MPE Report

Report No.: STS2605362H01

Issued for

Shenzhen Creality 3D Technology Co., Ltd.

18F, JinXiuHongDu Building, Meilong Blvd., Longhua Dist.,
Shenzhen, China 518131

Product Name: Filament Management System

Brand Name:



Model Name: CFS

Series Model(s): CFS Evo, CFS Neo

FCC ID: 2AXH6- CFSEVO

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 Creality 3D Technology Co., Ltd.
Address: 18F, JinXiuHongDu Building, Meilong Blvd., Longhua Dist.,
Shenzhen, China 518131
Manufacturer's Name: Shenzhen Creality 3D Technology Co., Ltd.
Address: 18F, JinXiuHongDu Building, Meilong Blvd., Longhua Dist.,
Shenzhen, China 518131

Product Description

Product Name: Filament Management System

Brand Name: **CREALITY**  CREALITY  CREALITY
创想三维

Model Name: CFS

Series Model(s): CFS Evo, CFS Neo

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: 2026-05-13

Date (s) of performance of tests: 2026-05-13 to 2026-06-29

Date of Issue: 2026-06-29

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	2026-06-29	STS2605362H01	ALL	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Filament Management System	
Brand Name	CREALITY  CREALITY  CREALITY 创想三维	
Model Name	CFS	
Series Model(s)	CFS Evo,CFS Neo	
Model Difference	All models are identical except for the model name, the test model is CFS.	
Product Description	The EUT is a Filament Management System	
	Operation Frequency:	13.56MHz
	Modulation Type:	ASK
	Antenna gain:	0 dBi
	Antenna Designation:	Internal Antenna
Power Rating	DC 24V	
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

Friis Formula

Friis 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

13.56MHz

Main Power: $72.81\text{dB}\mu\text{V/m}=72.81-95.2=-22.39\text{dBm}$

Tune up

Mode	Detector	Tune up Power
13.56MHz	peak	-22±1dBm

Protocol	Fre. (MHz)	Separati on 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	Res ult
13.56MHz	13.56	20	-20	0	-20	0.01	0.000001	0.98	$\frac{0.000001}{1}$	Pass

Multiple transmission:

 $13.56\text{MHz} = 0.000001 < 1$

Note: 1. The Maximum power is less than the limit, complies with the exemption requirements.

2. ERP = EIRP - 2.15

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