



MPE Report

Report No.: STS2511254H01

Issued for

Sun Bo Bo Digital Company Limited

Unit 3306, 33/F New Trend Centre, 704 Prince Edward Road
East, Kowloon, Hong Kong, China

Product Name: Car media player

Brand Name: EONON

Model Name: FDF1X7S

Series Model(s): See page 5

FCC ID: 2BDS8-X7S

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 : Sun Bo Bo Digital Company Limited
Address..... : Unit 3306, 33/F New Trend Centre, 704 Prince Edward Road East,
Kowloon, Hong Kong, China
Manufacturer's Name : SUN BO BO DIGITAL COMPANY LIMITED
Address..... : Unit 3306, 33/F New Trend Centre, 704 Prince Edward Road East,
Kowloon, Hong Kong, China

Product Description

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Model Name..... : FDF1X7S
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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 : 28 Nov. 2025
Date (s) of performance of tests..... : 28 Nov. 2025~22 Dec. 2025
Date of Issue : 22 Dec. 2025
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	22 Dec. 2025	STS2511254H01	ALL	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Car media player
Brand Name	EONON
Model Name	FDF1X7S
Series Model(s)	DGRMX7S, DGRMX7S-PRO, E39X7S, E46X7S, E90X7S, FDF1X7S-PRO, FDMX7S, FDX7S, GMSX7S, GMSX7S-PRO, GMX7S, GMX7S-PRO, GPX7S, HAC1X7S, HAC2X7S, HCIV1X7S, HCIV2X7S, M3BKX7S, M3BLX7S, SD1X7S, SD2X7S, TYTX7S, UX7K-PRO-MAX, UX7S, UX7SK-PLUS, UX7SK-PRO-MAX, UX7S-PLUS, VWX7S, VWX7S-PRO, DGRMX7A, E39X7A, E46X7A, E90X7A, FDF1X7A, FDX7A, GMSX7A, GMX7A, GPX7A, HAC1X7A, HAC2X7A, HCIV1X7A, M3BKX7A, M3BLX7A, SD1X7A, TYTACX7A, TYTX7A, UX7A, UX7A-PLUS, UX7TA, UX7TA-PLUS, VWX7A, E39X6S2, E46X6S2, E90X6S2, DGRMX6S2, FDF1X6S2, FDX6S2, GMSX6S2, GMX6S2, HCIV1X6S2, TYTX6S2, UX6S2, UX6S2-PLUS, VWX6S2, M3BKX6S2, M3BLX6S2, SD1X6S2, UX6K2-PRO-MAX, UX6SK2-PLUS, GMX6S-U, TYTX6S, UX6SK-PLUS, VWX6S-PRO, GMX6S-PRO, HAC1X7, HAC2X7, FDX7, TYTACX7S, UX7ST, UX7ST-PLUS, UX7ST-PRO, UX7ST-PRO-PLUS, UX6S2T, UX6S2T-PLUS, UX6ST, UX6ST-PLUS, E39X7, E46X7, E90X7, UX7, UX7-PLUS, GPX7, M3BKX7, M3BLX7, VWX7, E46X6S-PRO, E46X7S-PRO, GMSX6S-PRO, FDF1X6S-PRO, M3BLX6S-PRO, M3BLX7S-PRO, UX7S-PRO-MAX, DGRMX6S-PRO
Model Difference	Only the model name differs.



Product Description	The EUT is Car media player	
	Operation Frequency	TX: GSM850: 824-849 MHz GSM1900: 1850-1910 MHz WCDMA B2: 1850-1910 MHz WCDMA B5: 824-849 MHz LTE Band 5:824~849MHz LTE Band 7:2500~2570MHz LTE Band 38:2570-2620 MHz LTE Band 40:2305-2315 MHz /2350-2360 MHz LTE Band 41: 2496-2690 MHz RX: GSM850: 869-894 MHz GSM1900: 1930-1990 MHz WCDMA B2: 1930-1990 MHz WCDMA B5: 869-894 MHz LTE Band 2:1930 ~1990MHz LTE Band 4:2110~2155MHz LTE Band 5:869~894MHz LTE Band 7:2620~2690MHz LTE Band 38:2570-2620 MHz LTE Band 40:2555~2655MHz LTE Band 40:2305-2315 MHz /2350-2360 MHz LTE Band 41: 2496-2690 MHz BT/ BLE: 2402~2480 MHz 2.4G WLAN: 802.11b/g/n 20: 2412~2462 MHz 802.11n(40MHz):2422~2452MHz 5.2G WLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.180GHz-5.240GHz IEEE 802.11n(HT40)/ac(VHT40): 5.190GHz-5.230GHz IEEE 802.11ac(VHT80) : 5.210GHz 5.3G WLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.260GHz-5.320GHz IEEE 802.11 n(HT40)/ac(VHT40): 5.270GHz-5.310GHz IEEE 802.11ac(VHT80): 5.290GHz 5.6G WLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.500GHz-5.700GHz IEEE 802.11 n(HT40)/ac(VHT40): 5.510GHz-5.670GHz IEEE 802.11ac(VHT80): 5.530GHz-5.610GHz 5.8G WLAN: IEEE 802.11a/ n(HT20)/ac(VHT20): 5.745GHz-5.825GHz IEEE 802.11a/ n(HT40)/ac(VHT40): 5.755GHz-5.795GHz IEEE 802.11ac(VHT80): 5.775GHz



	Modulation Type	BT BR(1Mbps): GFSK BT EDR(2Mbps): $\pi/4$ -DQPSK BT EDR(3Mbps): 8DPSK BLE: GFSK 2.4G WLAN: 802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 5G WLAN: 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
	Antenna gain	GSM850:1.08 dBi GSM1900:1.03 dBi WCDMA B2:1.03 dBi WCDMA B5:1.08 dBi LTE B5:1.08 dBi LTE B7:0.57 dBi LTE B38:-0.2 dBi LTE B40:0.11 dBi LTE B41:0.57 dBi BT / BLE / 2.4G WLAN: 4.78dBi 5.2G WLAN / 5.3G WLAN: 4.4dBi 5.6G WLAN: 4.26dBi 5.8G WLAN: 3.24dBi
	Antenna Designation	BT / BLE / 2.4G WLAN / 5G WLAN: Internal GSM / WCDMA / LTE: External
Power Rating	Input: DC 12V Output: Maximum amplifier output power 25W/14.4V	
Adapter	N/A	
Battery	N/A	
Hardware Version	SPD-C6982-V03	
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
GPRS 850	AV	30±1 dBm
GPRS 1900	AV	30±1 dBm
WCDMA Band 2	AV	23±1 dBm
WCDMA Band 5	AV	24±1 dBm
LTE Band 5	AV	24±1 dBm
LTE Band 7	AV	24±1 dBm
LTE Band 38	AV	21±1 dBm
LTE Band 40	AV	15±1 dBm
LTE Band 41	AV	21±1 dBm
BT	AV	-1±1 dBm
BLE	AV	1±1 dBm
2.4G WLAN	AV	18±1 dBm
5G WLAN	AV	13±1 dBm

RF Function	Frequency (MHz)	Separation distance (cm)	Max AVG Power (dBm)	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
GPRS 850	824	20	30.67	31	1.08	32.08	1614.36	0.321	0.549	0.5846	Pass
GPRS 1900	1850	20	30.05	31	1.03	32.03	1595.88	0.317	1	0.3175	Pass
WCDMA B2	1850	20	23.53	24	1.03	25.03	318.420	0.063	1	0.0633	Pass
WCDMA B5	824	20	24.73	25	1.08	26.08	405.509	0.081	0.549	0.1469	Pass
LTE B5	824	20	24.20	25	1.08	26.08	405.509	0.081	0.549	0.1469	Pass
LTE B7	2500	20	24.28	25	0.57	25.57	360.579	0.072	1	0.0717	Pass
LTE B38	2570	20	21.89	22	-0.2	21.80	151.356	0.030	1	0.0301	Pass
LTE B40	2305	20	15.28	16	0.11	16.11	40.832	0.008	1	0.0081	Pass
LTE B41	2496	20	21.92	22	0.57	22.57	180.717	0.036	1	0.0360	Pass
BT	2402	20	-0.78	0.00	4.78	4.78	3.006	0.0006	1	0.0006	Pass
BLE	2402	20	1.86	2.00	4.78	6.78	4.764	0.0009	1	0.0009	Pass
2.4G WLAN	2412	20	18.46	19.00	4.78	23.78	238.781	0.0475	1	0.0475	Pass
5G WLAN	5500	20	13.90	14.00	4.4	18.40	69.183	0.0138	1	0.0138	Pass

Multiple transmission:

$$\text{BLE} + 5\text{G WLAN} = 0.0009 + 0.0138 = 0.015 < 1$$

$$\text{BLE} + \text{BT} = 0.0009 + 0.5846 = 0.5855 < 1$$

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

2. The Bluetooth and WLAN can't simultaneous transmission at the same time.

3. ERP = EIRP - 2.15

※※※※※END OF THE REPORT※※※※※