

FCC RF Exposure Evaluation and Test Report

For
E-sun Sky Computer Technology (Shenzhen) Co., Ltd.

FCC ID:2BXLN-NEO

FCC Rule(s): FCC Part 15C/E

Product Description: Solode

Tested Model: Neo

Report No.: MAX260840706302MPE

Tested Date: Aug.01~11, 2026

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FCC RF Exposure Evaluation

1. Product Information

Product name	:	Solode
Test Model	:	Neo, Pro., Ultra
Power Supply	:	DC 12V by USB TAPY-C
Applicant	:	E-sun Sky Computer Technology (Shenzhen) Co., Ltd.
Address of applicant	:	Room1401, B Bldg, West Side, Shenzhen Tech Eco-Park, Yuehai, Nanshan, Shenzhen, Guangdong, ChinaDistrict,Shenzhen
Bluetooth		
Frequency Range	:	2402MHz~2480MHz
Channel Number	:	40 channels for Bluetooth
Modulation Type	:	GFSK
Antenna Description	:	FPC Antenna, 1.75dBi(Max.)
WIFI(2.4G Band)		
Frequency Range	:	2412MHz~2462MHz
Channel Number	:	11 Channels for 20MHz bandwidth (2412~2462MHz)
Modulation Type	:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	:	FPC Antenna, 1.75dBi(Max.)
WIFI(5.2G Band)		
Frequency Range	:	5180MHz~5240MHz
Channel Number	:	4 channels for 20MHz bandwidth(5180MHz~5240MHz) 2 channels for 40MHz bandwidth(5190MHz~5230MHz) 1 channels for 80MHz bandwidth(5210MHz)
Modulation Type	:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	:	FPC Antenna, 2.74dBi(Max.)
WIFI(5.8G Band)		
Frequency Range	:	5745MHz~5825MHz
Channel Number	:	5 channels for 20MHz bandwidth(5745MHz~5825MHz) 2 channels for 40MHz bandwidth(5755MHz~5795MHz) 1 channels for 80MHz bandwidth(5775MHz)
Modulation Type	:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	:	FPC Antenna, 2.74dBi(Max.)
Exposure category	:	General population/uncontrolled environment
Device Type	:	General population/uncontrolled environment

2. Evaluation method and Limit Requirement

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with. In accordance with KDB447498 D01 General RF Exposure Guidance v06 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from

measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field planewave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f ²)*	6
30 – 300	61.4	0.163	1.0 f/300	6
300 – 1500	/	/	5	6
1500 – 100,000	/	/		6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f ²)*	30
30 – 300	27.5	0.073	0.2 f/1500	30
300 – 1500	/	/	1.0	30
1500 – 100,000	/	/		30

F=frequency in MHz

*=Plane-wave equivalent power density

MPE Calculation Method

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

Where: S=power density

P=power

input to

antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance

to the center of radiation of the antenna

As declared by the Applicant, the EUT transmits with the maximum source-based Duty Cycle of 100%-see the User manual, and the EUT is a wireless device used in a mobile application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum mobile separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna is 2.00dBi for BT&WLAN, and the power drift from Turn-up Procedure provide by manufacturer as following states, the RF power density can be obtained.

3. Refer Evaluation Method

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

FCC KDB publication 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

FCC CFR 47 part1 1.1310: Radiofrequency radiation exposure limits.

FCC CFR 47 part2 2.1091: Radiofrequency radiation exposure evaluation: mobile devices

4. Conducted Power Results

[BLE]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
GFSK	00	2402	1.11
	19	2441	0.89
	39	2480	0.62

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	CDD/MIMO Max Conducted Power(dBm)
IEEE 802.11b	1	2412	15.22
	6	2437	14.51
	11	2462	13.97
IEEE 802.11g	1	2412	15.16
	6	2437	14.93
	11	2462	14.55
IEEE 802.11n HT20	1	2412	15.09
	6	2437	14.83
	11	2462	14.47

[5.2G WIFI]

Mode	Channel	Frequency (MHz)	CDD/MIMO Max Conducted Power(dBm)
IEEE 802.11a	36	5180	14.6
	40	5200	13.97
	48	5240	13.17
IEEE 802.11n HT20	36	5180	14.4
	40	5200	13.98
	48	5240	13.23
IEEE 802.11n HT40	38	5190	14.76
	46	5230	13.87
IEEE 802.11ac VHT20	36	5180	14.13
	40	5200	13.51
	48	5240	12.73
IEEE 802.11ac VHT40	38	5190	14.37
	46	5230	13.57
IEEE 802.11ac VHT80	42	5210	14.41

[5.8G WIFI]

Mode	Channel	Frequency (MHz)	CDD/MIMO Max Conducted Power(dBm)
IEEE 802.11a	149	5745	15.08
	157	5785	15.72
	165	5825	15.43
IEEE 802.11n HT20	149	5745	15.34
	157	5785	16.19
	165	5825	15.9
IEEE 802.11n HT40	151	5755	15.26
	159	5795	15.68
IEEE 802.11ac VHT20	149	5745	16.51
	157	5785	16.56
	165	5825	16.24
IEEE 802.11ac VHT40	151	5755	15.52
	159	5795	16.04
IEEE 802.11ac VHT80	155	5775	15.18

5. Manufacturing Tolerance

[BLE]

GFSK(Peak)			
Channel	Channel 0	Channel 19	Channel 40
Target (dBm)	1.0	1.0	1.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI CDD/MIMO]

IEEE 802.11b/g/n			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	15.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[5.2G WIFI CDD/MIMO]

IEEE 802.11a/n/ac			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	13.0	13.0	13.0
Tolerance $\pm$ (dB)	2.0	2.0	2.0

[5.8G WIFI CDD/MIMO]

IEEE 802.11a/n/ac			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	15.0	15.0	15.0
Tolerance $\pm$ (dB)	2.0	2.0	2.0

6. Evaluation Results

Standalone Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

Modulation Typer	Max power		Antenna Gain		MPE	Limit
	dBm	mW	dB	Linear	mW/cm^2	mW/cm^2
BLE	2	1.585	1.75	1.50	0.0005	1

[2.4G WIFI CDD/MIMO]						
Modulation Typer	Max power		Antenna Gain		MPE	Limit
	dBm	mW	dB	Linear	mW/cm^2	mW/cm^2
IEEE 802.11	16	39.81	1.75	1.50	0.0119	1

[5.2G WIFI CDD/MIMO]						
Modulation Typer	Max power		Antenna Gain		MPE	Limit
	dBm	mW	dB	Linear	mW/cm^2	mW/cm^2
IEEE 802.11	15	31.62	2.74	1.88	0.0119	1

[5.8G WIFI CDD/MIMO]						
Modulation Typer	Max power		Antenna Gain		MPE	Limit
	dBm	mW	dB	Linear	mW/cm^2	mW/cm^2
IEEE 802.11	17	50.12	2.74	1.88	0.0187	1

Remark:

Output power including tune-up tolerance;

MPE evaluate distance is 20cm from user manual provide by manufacturer;

Simultaneous Transmission

According to KDB447498 D01 General RF Exposure Guidance v06 for Transmitters used in mobile exposure conditions for simultaneous transmission operations; $\sum$ of MPE ratios ≤ 1.0

Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB447498 D01 General RF Exposure Guidance v06.