RF Exposure Evaluation Report

APPLICANT	:	MeiG Smart Technology Co., Ltd
EQUIPMENT	:	SNM758
BRAND NAME	:	MEIGLink
MODEL NAME	:	SNM758
FCC ID	:	2APJ4-SNM758
STANDARD	:	47 CFR Part 2.1091

The product evaluation date was started from Dec. 06, 2023 and completed on Dec. 06, 2023. We, Sporton International Inc. (Kunshan), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA970101-01	Rev. 01	Initial issue of report	Jan. 18, 2024

1. Administration Data

1.1. Testing Laboratory

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	SAR01-KS	CN1257	314309

Applicant	
Company Name	MeiG Smart Technology Co., Ltd
Address	2nd Floor,Office Building,No.5 Lingxia Road,Fenghuang,Fuyong Street,Bao'an District,Shenzhen City.

Manufacturer	
Company Name	MeiG Smart Technology Co., Ltd
Address	2nd Floor,Office Building,No.5 Lingxia Road,Fenghuang,Fuyong Street,Bao'an District,Shenzhen City.

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	SNM758
Brand Name	MEIGLink
Model Name	SNM758
FCC ID	2APJ4-SNM758
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Mode	WLAN 2.4GHz : 802.11b/g/n/ HT20/HT40 WLAN 5GHz : 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
Antenna Type	Glue Stick Antenna
HW Version	V1.02
SW Version	SNM758EQ_EQ000_2774.51ABD20.4041C02_231026_100_V01_T12
EUT Stage	Identical Prototype
Remark: 1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.	

Comments and Explanations:
1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification. 2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.

3. Maximum RF average output tune up power among production units

<WLAN 2.4GHz>

Mode	Maximum Average Power (dBm)
802.11b	16.50
802.11g	15.50
802.11n-HT20	14.00
802.11n-HT40	14.50

<Bluetooth>

Mode		Maximum Average Power (dBm)
Bluetooth	BR/EDR	10.00
	LE	0

<WLAN 5GHz>

Mode		Maximum Average Power (dBm)
WLAN 5.2GHz	802.11a	14.00
	802.11n-HT20	13.00
	802.11n-HT40	11.50
	802.11ac-VHT20	12.00
	802.11ac-VHT40	10.00
	802.11ac-VHT80	10.00
WLAN 5.3GHz	802.11a	14.00
	802.11n-HT20	13.00
	802.11n-HT40	11.50
	802.11ac-VHT20	11.50
	802.11ac-VHT40	9.00
	802.11ac-VHT80	9.00
WLAN 5.5GHz	802.11a	14.00
	802.11n-HT20	13.00
	802.11n-HT40	11.50
	802.11ac-VHT20	11.50
	802.11ac-VHT40	9.00
	802.11ac-VHT80	10.00
WLAN 5.8GHz	802.11a	14.00
	802.11n-HT20	13.00
	802.11n-HT40	11.50
	802.11ac-VHT20	11.00
	802.11ac-VHT40	10.00
	802.11ac-VHT80	10.00

4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)	Power Density / Limit
WLAN 2.4GHz Band	2412.0	0.00	16.50	16.5	0.04	44.67	0.009	1.000	**0.009**
5.2GHz WLAN	5180.0	1.00	14.00	15.0	0.03	31.62	0.006	1.000	0.006
5.3GHz WLAN	5260.0	1.00	14.00	15.0	0.03	31.62	0.006	1.000	**0.006**
5.5GHz WLAN	5500.0	1.00	14.00	15.0	0.03	31.62	0.006	1.000	0.006
5.8GHz WLAN	5745.0	1.00	14.00	15.0	0.03	31.62	0.006	1.000	0.006
Bluetooth	2402.0	0.00	10.00	10.0	0.01	10.00	0.002	1.000	**0.002**

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.

5.2. Collocated Power Density Calculation

WLAN2.4GHz Power Density / Limit	Bluetooth Power Density / Limit	Σ(Power Density / Limit) of WLAN2.4GHz+ Bluetooth
0.009	0.002	0.011
WLAN 5GHz Power Density / Limit	**Bluetooth Power Density / Limit**	**Σ(Power Density / Limit) of WLAN 5GHz + Bluetooth**
0.006	0.002	0.008

Note:

1. Σ(Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WLAN + Bluetooth.
2. Considering the WLAN module collocation with the Bluetooth transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 2 collocated transmitters is compliant.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

------THE END------