



RF EXPOSURE EVALUATION REPORT

APPLICANT : MeiG Smart Technology Co., Ltd
PRODUCT NAME : CPE
MODEL NAME : SLT719
BRAND NAME : MEIGLink
FCC ID : 2APJ4-SLT719
STANDARD(S) : FCC 47CFR Part 2(2.1091)
RECEIPT DATE : 2021-12-14
TEST DATE : 2022-01-01
ISSUE DATE : 2022-01-18

Edited by:

Gan Yueming
Gan Yueming (Rapporteur)

Approved by:

Shen Junsheng
Shen Junsheng (Supervisor)

NOTE: This document is issued by Shenzhen Morlab Communications Technology Co., Ltd., the test report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.





DIRECTORY

- 1. Technical Information..... 3
- 1.1 Applicant and Manufacturer Information..... 3
- 1.2 Equipment under Test (EUT) Description..... 3
- 1.3 Applied Reference Documents 4
- 2. Device Category and RF Exposure Limit 5
- 3. Test Equipment List..... 6
- 4. RF Exposure Assessment..... 7
- Annex A General Information..... 9
- Annex B Conducted Power 10

Change History		
Version	Date	Reason for Change
1.0	2022-01-18	First edition



1. Technical Information

Note: Provide by applicant.

1.1 Applicant and Manufacturer Information

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

1.2 Equipment under Test (EUT) Description

Product Name:	CPE
Product Serial No.:	(N/A, marked 1# by test site)
Hardware Version:	719_V1.01
Software Version:	SLT719B_TSER_2.0.2_EQ101
Frequency Bands:	WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz WLAN 2.4GHz: 2412 MHz ~ 2462 MHz
Modulation Mode:	WCDMA: QPSK/16QAM LTE: QPSK/16QAM 802.11b: DSSS 802.11g/n-HT20/HT40: OFDM
Antenna Type:	WWAN: Fixed External Antenna WLAN: Fixed External Antenna
Antenna Gain:	WCDMA Band V, LTE Band 5: 0.5dBi; WCDMA Band II, LTE Band 2/4: 2.0dBi; LTE Band 7: 3.0dBi; WLAN 2.4GHz: 2.0dBi

Note:

When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.



1.3 Applied Reference Documents

Leading reference documents for testing:

Identity	Document Title	Method determination /Remark
FCC 47CFR Part 2(2.1091)	Radio Frequency Radiation Exposure Assessment: mobile devices	No deviation
KDB 447498 D01v06	General RF Exposure Guidance	No deviation

Note 1: The test item is not applicable.

Note 2: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.



2. Device Category and RF Exposure Limit

Per user manual, Based on 47CFR 2.1091, this device belongs to mobile device category with General Population/Uncontrolled exposure.

Mobile Devices:

47CFR 2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

General Population/Uncontrolled Exposure:

The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category, and the general population/uncontrolled exposure limits apply to these devices.

Table 1—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(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/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz* = Plane-wave equivalent power density



3. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
R&S	Network Emulator	CMW500	124534	2021.10.21	2022.10.20
Anritsu	Network Emulator	MT8820C	6200985414	2021.10.21	2022.10.20

Note:

The EUT was connected to Base Station Anritsu MT8820C referred to the Setup Configuration. For the maximum power, it was established between EUT and Base Station with following setting:

1. For WCDMA testing, Power Ctrl Mode = All Up bits, and the transmitted maximum output power was recorded.
2. For LTE testing, the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and different configurations which are requested to be reported to FCC.

4. RF Exposure Assessment

➤ Standalone Transmission Assessment

<Standalone Carrier Transmit>

Bands	Frequency (MHz)	Tune-up Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	Power Density (mW/cm ²)	Limit for MPE (mW/cm ²)
WCDMA Band II	1910	24.5	2.0	446.68	0.089	1.0
WCDMA Band V	849	24.5	0.5	316.23	0.063	0.566
LTE Band 2	1910	24.5	2.0	446.68	0.089	1.0
LTE Band 4	1755	24.5	2.0	446.68	0.089	1.0
LTE Band 5	849	24.5	0.5	316.23	0.063	0.566
LTE Band 7	2570	24.5	3.0	562.34	0.112	1.0
WLAN 2.4GHz ANT 0	2462	17.5	2.0	89.13	0.018	1.0
WLAN 2.4GHz ANT 1	2462	18.0	2.0	100.00	0.02	1.0

<MIMO Transmit>

Bands	Frequency (MHz)	Tune-up Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	Power Density (mW/cm ²)	Limit for MPE (mW/cm ²)
WLAN 2.4GHz ANT 1+ANT 2	2462	20.0	2.0	158.49	0.032	1.0

Note:

1. According to KDB 447498, SAR test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring assessment, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.
2. MPE calculate method

$$\text{Power Density} = \text{EIRP}/4\pi R^2$$

Where: EIRP = P+G

P = Output Power (dBm)

G = Antenna Gain (dBi)

R = Separation Distance (20cm)



➤ **Simultaneous Transmission Assessment**

<Multi-Band Simultaneous Transmission Consideration>

Simultaneous Transmission Consideration	Applicable Combination
	WWAN + WLAN 2.4GHz MIMO

Note:

The worst condition for WWAN & WLAN & RFID will be calculated for transmitting simultaneously.

Formula: $\text{Result} = \text{Power density}_1 / \text{limit}_1 + \text{Power density}_2 / \text{limit}_2 < 1$.

-	WWAN (mW/cm²)	WLAN 2.4GHz (mW/cm²)	Total Ratio	Verdict
PD (mW/cm ²)	0.112	0.032	0.144	PASS
Limit to ratio	1.0	1.0		

➤ **Conclusion:**

According to 47 CFR §2.1091, this device complies with human exposure basic restrictions.



Annex A General Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

The FCC designation number is CN1192, the test firm registration number is 226174.



REPORT No.: SZ21120177S01

Annex B Conducted Power