



MPE TEST REPORT

Applicant MeiG Smart Technology Co., Ltd
FCC ID 2APJ4-SLM750VSA
Product SLM750VSA
Brand MEIGLink
Model SLM750VSA
Report No. R2202A0142-M1
Issue Date March 1, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC 47 CFR Part 1 1.1310**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City: Shanghai
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1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Description of Equipment under Test

Client Information

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

General Technologies

Model	SLM750VSA
IMEI	868159056261394
Hardware Version	SLM750-V_MB_V1.00
Software Version	SLM750-V_4.0.13_EQ101
Date of Testing:	February 25, 2022
<p>Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.</p> <p>2. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.</p>	

3 Maximum conducted output power (measured) and antenna Gain

The numeric gain (G) of the antenna with a gain specified in dB is determined by

$$\text{Numeric gain (G)} = 10^{(\text{antenna gain}/10)}$$

Band		Maximum conducted output power (dBm)	Division Factors (dB)	Time-Averaged Tune up Power (dBm)
GSM 850	GSM	35.00	-9.03	25.97
	GPRS	1 Txslot	-9.03	25.97
		2 Txslots	-6.02	28.98
		3 Txslots	-4.26	30.74
		4 Txslots	-3.01	31.99
GSM 1900	GSM	32.00	-9.03	22.97
	GPRS	1 Txslot	-9.03	22.97
		2 Txslots	-6.02	25.98
		3 Txslots	-4.26	27.74
		4 Txslots	-3.01	28.99

Note:

Division Factors

To average the power, the division factor is as follows:

1Txslot = 1 transmit time slot out of 8 time slots

=> conducted power divided by (8/1) => -9.03 dB

2Txslots = 2 transmit time slots out of 8 time slots

=> conducted power divided by (8/2) => -6.02 dB

3Txslots = 3 transmit time slots out of 8 time slots

=> conducted power divided by (8/3) => -4.26 dB

4Txslots = 4 transmit time slots out of 8 time slots

=> conducted power divided by (8/4) => -3.01 dB



Band	Maximum Conducted Output Power		Antenna Gain (dBi)	Numeric gain
	(dBm)	(mW)		
GSM 850	31.990	1581.248	1.800	1.514
GSM 1900	28.990	792.501	2.500	1.778
WCDMA II	25.000	316.228	2.500	1.778
WCDMA V	25.000	316.228	1.800	1.514
LTE Band 2	25.000	316.228	2.500	1.778
LTE Band 4	25.000	316.228	2.500	1.778
LTE Band 5	25.000	316.228	1.800	1.514
LTE Band 7	25.000	316.228	3.500	2.239
LTE Band 40	25.000	316.228	3.500	2.239

4 Test Result

According to section 1.1310 of FCC 47 CFR Part 1, limits for maximum permissible exposure (MPE) are as following

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)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3-30	1842/f	4.89/f	*(900/f ²)	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/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

Note1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational / controlled limits apply provided he or she is made aware of the potential for exposure.

Note2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.



The maximum permissible exposure for 300~1500 MHz is $f/1500$, for 1500~100,000MHz is 1.0. So

Band	The maximum permissible exposure (mW/cm ²)
GSM850	0.549
GSM1900	1.000
WCDMA II	1.000
WCDMA V	0.549
LTE Band 2	1.000
LTE Band 4	1.000
LTE Band 5	0.549
LTE Band 7	1.000
LTE Band 40	1.000

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided. This calculation is based on the conducted power, considering maximum power and antenna gain. The formula shown in KDB 447498 D01 is used in the calculation.

Equation from KDB 447498 D01 General RF Exposure Guidance v06 (10/23/2015) is:

$$S = PG / 4\pi R^2$$

Where: S = power density (in appropriate units, e.g. mW/cm²)

P = Time-average maximum tune up procedure (in appropriate units, e.g., mW)

G = the numeric gain of the antenna

R = distance to the center of radiation of the antenna (20 cm = limit for MPE)

Band	Antenna Gain (dBi)	Maximum tune up (dBm)	Maximum EIRP (dBm)	PG (mW)	Test Result (mW/cm ²)	Limit Value (mW/cm ²)
GSM850	1.800	31.990	33.790	2393.316	0.476	0.549
GSM1900	2.500	28.990	31.490	1409.289	0.280	1.000
WCDMA II	2.500	25.000	27.500	562.341	0.112	1.000
WCDMA V	1.800	25.000	26.800	478.630	0.095	0.549
LTE Band 2	2.500	25.000	27.500	562.341	0.112	1.000
LTE Band 4	2.500	25.000	27.500	562.341	0.112	1.000
LTE Band 5	1.800	25.000	26.800	478.630	0.095	0.549
LTE Band 7	3.500	25.000	28.500	707.946	0.141	1.000
LTE Band 40	3.500	25.000	28.500	707.946	0.141	1.000
Note: R = 20cm π= 3.1416						

Note: For transmitters, minimum separation distance is 20cm, even if calculations indicate MPE distance is less.

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



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.