MPE TEST REPORT

Applicant	XCHENG TECH CO.,LIMITED
FCC ID	2AZ4F-D1
Product	Smart Desktop Terminal
Brand	Kobile;Kripto;Clip;Nextep;Ecline;SAT;Qian;Ghia; CBX;Solux;Dejavoo;slimrate
Model	D1
Report No.	R2206A0595-M1V1
Issue Date	August 17, 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.

Wei Fangying

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	August 15, 2022
Rev.1	Update information.	August 17, 2022
Note: This revised report (Report No. R2206A0595-M1V1) supersedes and replaces the previously issued report (Report No. R2206A0595-M1). Please discard or destroy the previously issued report and dispose of it accordingly.		

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:	Building 3, No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
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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	XCHENG TECH CO.,LIMITED
Applicant address	ROOM 401F,Building 5,No.2000 LONG DONG Avenue,Pudong New District
Manufacturer	XCHENG TECH CO.,LIMITED
Manufacturer address	ROOM 401F,Building 5,No.2000 LONG DONG Avenue,Pudong New District

General Technologies

Model	D1
IMEI	864084060007894
Hardware Version	V1.0
Software Version	V1.0
Date of Testing	June 28, 2022 ~July 20, 2022
Date of Sample Received	June 28, 2022
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 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.	

3 Maximum Tune up power and antenna Gain

The numeric gain (G) of the antenna with a gain specified in dB is determined by
Numeric gain (G)=10^(antenna gain/10)

Band			Burst Tune up Power (dBm)	Division Factors (dB)	Time-Averaged Tune up Power (dBm)
GSM 850	GSM/ GPRS	1 Txslot	33.00	-9.03	23.97
		2 Txslots	32.00	-6.02	25.98
		3 Txslots	31.00	-4.26	26.74
		4 Txslots	30.00	-3.01	26.99
	EGPRS (8PSK)	1 Txslot	26.00	-9.03	16.97
		2 Txslots	25.00	-6.02	18.98
		3 Txslots	23.00	-4.26	18.74
		4 Txslots	22.00	-3.01	18.99
GSM 1900	GSM/ GPRS	1 Txslot	30.00	-9.03	20.97
		2 Txslots	29.00	-6.02	22.98
		3 Txslots	28.00	-4.26	23.74
		4 Txslots	27.00	-3.01	23.99
	EGPRS (8PSK)	1 Txslot	27.00	-9.03	17.97
		2 Txslots	26.00	-6.02	19.98
		3 Txslots	24.00	-4.26	19.74
		4 Txslots	23.00	-3.01	19.99

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 Tune up Power		Antenna Gain (dBi)	Numeric gain
	(dBm)	(mW)		
GSM850	26.990	500.035	2.000	1.585
GSM1900	23.990	250.611	2.000	1.585
WCDMA Band II	23.000	199.526	2.000	1.585
WCDMA Band IV	23.000	199.526	2.000	1.585
WCDMA Band V	23.000	199.526	2.000	1.585
LTE Band 2	24.000	251.189	2.000	1.585
LTE Band 4	25.000	316.228	2.000	1.585
LTE Band 5	24.000	251.189	2.000	1.585
LTE Band 7	24.000	251.189	2.000	1.585
LTE Band 38	25.000	316.228	2.000	1.585
LTE Band 40	24.000	251.189	2.000	1.585
LTE Band 41	25.000	316.228	2.000	1.585
Wi-Fi 2.4G	18.000	63.096	2.000	1.585
Wi-Fi 5G	17.000	50.119	2.000	1.585
Bluetooth	15.000	31.623	2.000	1.585
Bluetooth (Low Energy)	0.500	1.122	2.000	1.585

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 MAXIMUN PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm2)	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/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

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 Band II	1.000
WCDMA Band IV	1.000
WCDMA Band 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 38	1.000
LTE Band 40	1.000
LTE Band 41	1.000
Wi-Fi 2.4GHz	1.000
Wi-Fi 5GHz	1.000
Bluetooth	1.000
Bluetooth (Low Energy)	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/cm^2)

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	2.000	26.990	28.990	792.501	0.158	0.549
GSM1900	2.000	23.990	25.990	397.192	0.079	1.000
WCDMA Band II	2.000	23.000	25.000	316.228	0.063	1.000
WCDMA Band IV	2.000	23.000	25.000	316.228	0.063	1.000
WCDMA Band V	2.000	23.000	25.000	316.228	0.063	0.549
LTE Band 2	2.000	24.000	26.000	398.107	0.079	1.000
LTE Band 4	2.000	25.000	27.000	501.187	0.100	1.000
LTE Band 5	2.000	24.000	26.000	398.107	0.079	0.549
LTE Band 7	2.000	24.000	26.000	398.107	0.079	1.000
LTE Band 38	2.000	25.000	27.000	501.187	0.100	1.000
LTE Band 40	2.000	24.000	26.000	398.107	0.079	1.000
LTE Band 41	2.000	25.000	27.000	501.187	0.100	1.000
Wi-Fi 2.4G	2.000	18.000	20.000	100.000	0.020	1.000
Wi-Fi 5G	2.000	17.000	19.000	79.433	0.016	1.000
Bluetooth	2.000	15.000	17.000	50.119	0.010	1.000
Bluetooth (Low Energy)	2.000	0.500	2.500	1.778	0.000	1.000
Note: **R** = 20cm **π**= 3.1416						

WWAN antenna and BT antenna and Wi-Fi antenna can't transmit simultaneously.

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.