RF EXPOSURE Test Report

Product:	Module Programmer,IR Key Processing Unit
Trade Mark:	XTOOL
Model Number:	M604
FCC ID:	2AW3I-M604

Prepared for

Shenzhen Xtooltech Intelligent Co., Ltd.

17&18/F, A2 Building, Creative City, Liuxian Avenue, Nanshan District, Shenzhen, China

Prepared by

Shenzhen HongBiao Certification& Testing Co., Ltd

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Table of Contents

1 GENERAL DESCRIPTION 5

1.1 DESCRIPTION OF EUT 5
1.2 TEST MODE 5
1.3 TEST SETUP 5
1.4 ANCILLARY EQUIPMENT 5

2 TEST FACILITIES AND ACCREDITATIONS 6

2.1 TEST LABORATORY 6
2.2 ENVIRONMENTAL CONDITIONS 6
2.3 MEASUREMENT UNCERTAINTY 6
2.4 TEST SOFTWARE 6

3 LIST OF TEST EQUIPMENT 7

4 RF EXPOSURE 8

4.1 MAXIMUM PERMISSIBLE EXPOSURE 8
4.1.1. Limit 8
4.1.2. Test Procedures 8
4.1.3. Test Setup 8
4.1.4. Test Result 8

5 PHOTOGRAPHS OF THE TEST SETUP 10

TEST RESULT CERTIFICATION

Applicant's Name..... :	Shenzhen Xtooltech Intelligent Co., Ltd.
Address ..... :	17&18/F, A2 Building, Creative City, Liuxian Avenue, Nanshan District, Shenzhen, China
Manufacturer's Name ..... :	Shenzhen Xtooltech Intelligent Co., Ltd.
Address ..... :	17&18/F, A2 Building, Creative City, Liuxian Avenue, Nanshan District, Shenzhen, China

Product description

Product name ..... :	Module Programmer,IR Key Processing Unit
Model Number ..... :	M604
Standards..... :	FCC CFR 47 PART 1 , 1.1310
Test procedure..... :	KDB 680106 D01 Wireless Power Transfer v04

This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Date of Test.....:

Date (s) of performance of tests.....:	Mar. 26, 2025~ Apr. 24, 2025
Test Result.....:	**Pass**

Testing Engineer : Zoe Su

(Zoe Su)

Technical Manager : Hans Mou

(Hans Mou)

Authorized Signatory : Leo Su

(Leo Su)

SHENZHEN HONGBIAO CERTIFICATION&TESTING CO., LTD HONG BIAO 弘 标 认 证 APPROVAL

Revision History

Revised No.	Date of Issue	Description
01	Apr. 24, 2025	Original

1 General Description

1.1 Description of EUT

Product name:	Module Programmer,IR Key Processing Unit
Model name:	M604
Series Model:	X2MBIR
Different of series model:	All the same except the model name (Online and offline sales channels are different, the series model is online (Amazon platform) sales, the main test model is offline sales.)
Operation frequency:	125kHz
Operational mode:	N/A
Modulation type:	ASK
Antenna type:	Coil Antenna
Input:	DC 5V
Battery:	N/A
Power supply:	Input: DC 5V
Adapter information:	N/A

1.2 Test Mode

Pretest Test Mode	Description of Mode
1	Normal working

1.3 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary Equipment

Equipment	Model	S/N	Manufacturer
Adapter	PD0302UC-0303	/	ManufacturoronShenzhen ABP Technology Co.,Ltd

2 Test Facilities and Accreditations

2.1 Test Laboratory

Test Site	Shenzhen HongBiao Certification& Testing Co., Ltd
Test Site Location	Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China
Telephone:	(86-755) 2998 9321
Fax:	(86-755) 2998 5110
FCC Registration No.:	CN1341
A2LA Certificate No.:	6765.01

2.2 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15ºC~35ºC
Relative Humidity:	20%~75%
Air Pressure:	98kPa~101kPa

2.3 Measurement Uncertainty

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.
The data and results quoted in this document are true and accurate values, and uncertainties are not involved in the calculations.
In addition, components and mass production processes that are similar to testing equipment may introduce additional deviations, and the manufacturer is solely responsible for the continued compliance of the equipment.

Measurement Frequency Range	U，(dB)	Note
RF frequency	$2x\ 10^{-5}$	
E-field	± 1.06 dB	
H-field	± 0.7 dB	
Temperature	±1 degree	
Humidity	± 5 %	

2.4 Test Software

Software name	Manufacturer	Model	Version
EHP200-TS	Narda	EHP-200A	Rel 1.95

3 List of Test Equipment

Item	Equipment No.	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	HB-E073	Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX11013	2024-05-21	2025-05-20

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

4 RF Exposure

4.1 Maximum Permissible Exposure

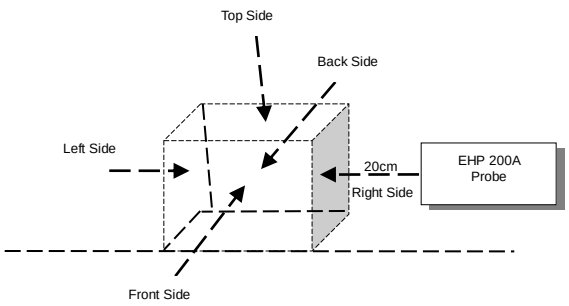
4.1.1. Limit

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 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 6	6
300-1500			f/300	6
1500-100000			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
1500-100000			1	30
f = frequency in MHz * = Plane-wave equivalent power density				

4.1.2. Test Procedures

E and H-field measurements should be made with the center of the probe at a distance of 20 cm surrounding the device and 20 cm above the top surface of the primary/client pair.
These measurements should be repeated for three different client battery levels, 1%, 50%, and 99%.
Record the test results.

4.1.3. Test Setup



4.1.4. Test Result

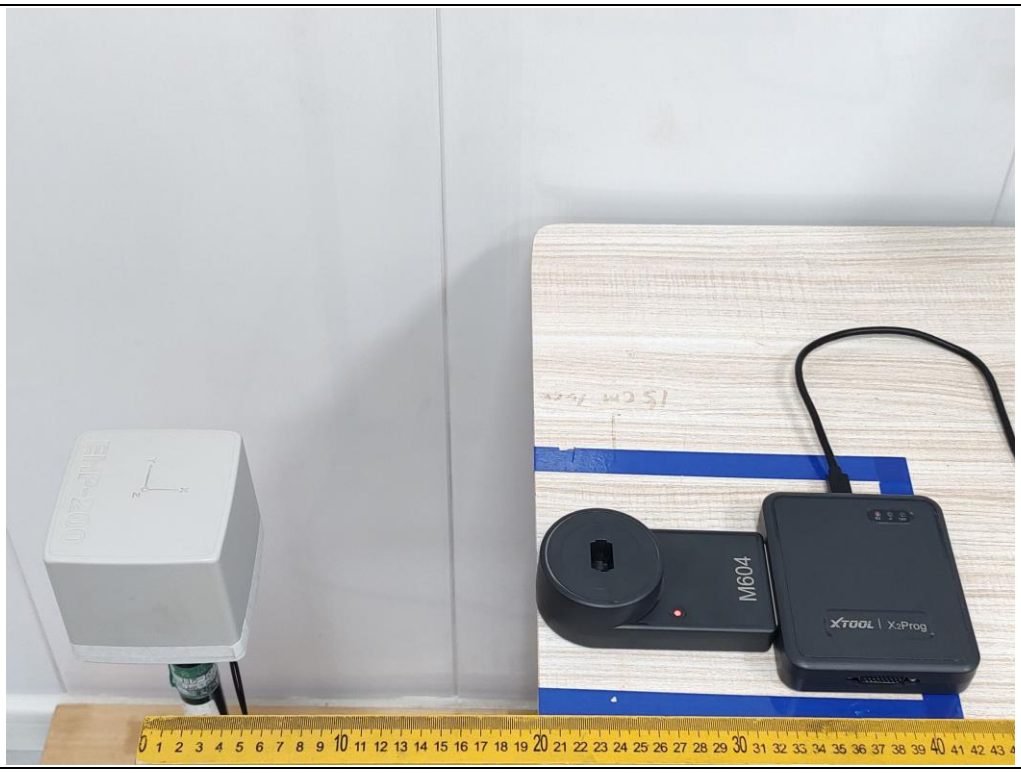
Test condition: Mode 3 operating mode with client device (1 %, 50%, 99% battery status of client device)

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E –field(V/m)	H–field(A/m)
<1%	Top	20	13.544	0.2292
<1%	Left	20	9.1004	0.1197
<1%	Right	20	9.0040	0.1309
<1%	Front	20	10.848	0.1267
<1%	Back	20	0.9994	0.0474
Limit			614	1.63
Margin Limit (%)			2.21%	14.06%

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E –field(V/m)	H–field(A/m)
<50%	Top	20	13.536	0.2285
<50%	Left	20	9.0996	0.1191
<50%	Right	20	9.0032	0.1301
<50%	Front	20	10.841	0.1261
<50%	Back	20	0.9988	0.0467
Limit			614	1.63
Margin Limit (%)			2.20%	14.02%

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E –field(V/m)	H–field(A/m)
<99%	Top	20	13.530	0.2277
<99%	Left	20	9.0989	0.1185
<99%	Right	20	9.0025	0.1295
<99%	Front	20	10.835	0.1255
<99%	Back	20	0.9981	0.0461
Limit			614	1.63
Margin Limit (%)			2.20%	13.97%

5 Photographs of the Test Setup

MPE


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