



RF EXPOSURE Test Report

Report No.: MTi240926004-06E3

Date of issue: 2024-12-18

Applicant: Zhuhai Quin Technology Co., Ltd.

Product: Label Printer

Model(s): 6XL Pro, D530, D530BT, D530 Pro, D530WF, D530WF Plus, D530WF Pro, 6XL Plus, 6XL Turbo, D430, D430BT, D430 Pro, D430 Plus, D430WF, D430WF Pro, D430WF Plus, D520 Pro, D520WF, D520WF Pro, D560, D560BT, D560 Pro, D560 Plus, D560WF, D560WF Pro, D560WF Plus, D521, D521 Pro, D521BT, D521WF, D521WF Pro, D531, D531 Pro, D531BT, D531WF, D531WF Pro, D550 Pro, D550 Plus, D550WF, D550WF Plus, D550WF Pro, LW650XL PRO, 650XL PRO, LW650XL, LW650 PRO, 650XL, LW650, 650XL PRO, LW650 PRO

FCC ID: 2ASRB-6XLPRO

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.com>



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Test Result Certification	
Applicant:	Zhuhai Quin Technology Co., Ltd.
Address:	ROOM 103-029(CENTRALIZED OFFICE AREA), 1F, BUILDING 1, NO. 18 FUTIAN ROAD, XIANGZHOU DISTRICT, ZHUHAI CITY, CHINA
Manufacturer:	Zhuhai Quin Technology Co., Ltd.
Address:	ROOM 103-029(CENTRALIZED OFFICE AREA), 1F, BUILDING 1, NO. 18 FUTIAN ROAD, XIANGZHOU DISTRICT, ZHUHAI CITY, CHINA
Product description	
Product name:	Label Printer
Trademark:	N/A
Model name:	6XL Pro
Serial Model:	D530, D530BT, D530 Pro, D530WF, D530WF Plus, D530WF Pro, 6XL Plus, 6XL Turbo, D430, D430BT, D430 Pro, D430 Plus, D430WF, D430WF Pro, D430WF Plus, D520 Pro, D520WF, D520WF Pro, D560, D560BT, D560 Pro, D560 Plus, D560WF, D560WF Pro, D560WF Plus, D521, D521 Pro, D521BT, D521WF, D521WF Pro, D531, D531 Pro, D531BT, D531WF, D531WF Pro, D550 Pro, D550 Plus, D550WF, D550WF Plus, D550WF Pro, LW650XL PRO, 650XL PRO, LW650XL, LW650 PRO, 650XL, LW650, 650XL PRO, LW650 PRO
Standards:	Part 2.1091.
Test procedure:	KDB 447498 D01 v06 FCC part 2.1091
Date of Test	
Date of test:	2024-12-11 to 2024-12-16
Test result:	Pass

Test Engineer :

Letter. Lan.

(Letter Lan)

Reviewed By :

David. Lee

(David Lee)

Approved By :

Leon Chen

(Leon Chen)



RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

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 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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

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

MPE Calculation Method

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

P_d = Power density in mW/cm²

P_{out} = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π = 3.1415926

R = distance between observation point and center of the radiator in cm(20cm)

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

BT/BLE:

Operation Frequency: 2402-2480MHz,

Power density limited: 1mW/ cm²

R=20cm

$mW=10^{(dBm/10)}$

antenna gain Numeric= $10^{(dBi/10)}=10^{(2/10)}=1.58$

BR+EDR:

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm ²)	(mW/cm ²)
				(dBm)	(mW)	(dBi)	Numeric		
2402	GFSK	-3.97	-3±1	-2	0.631	2	1.58	0.0002	1
2441		-4.33	-4±1	-3	0.501	2	1.58	0.0002	1
2480		-5.67	-5±1	-4	0.398	2	1.58	0.0001	1
2402	π/4-DQPSK	-4.09	-4±1	-3	0.501	2	1.58	0.0002	1
2441		-4.70	-4±1	-3	0.501	2	1.58	0.0002	1
2480		-5.73	-5±1	-4	0.398	2	1.58	0.0001	1
2402	8DPSK	-4.50	-4±1	-3	0.501	2	1.58	0.0002	1
2441		-4.40	-4±1	-3	0.501	2	1.58	0.0002	1
2480		-5.72	-5±1	-4	0.398	2	1.58	0.0001	1

BLE:

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm ²)	(mW/cm ²)
				(dBm)	(mW)	(dBi)	Numeric		
2402	BLE-1M	-4.08	-4±1	-3	0.501	2	1.58	0.0002	1
2440		-4.45	-4±1	-3	0.501	2	1.58	0.0002	1
2480		-5.55	-5±1	-4	0.398	2	1.58	0.0001	1

Conclusion:

For the max result: 0.0002≤ 1.0 SAR, No SAR is required.

----END OF REPORT----