

RF Exposure Evaluation Report

Report No.: RWAP202400215E

Applicant: Invixium Access Inc.

Address: 300-111 Gordon Baker Road, Toronto Canada M2H 3R1

Product Name: IXMC410

Product Model: IXMC410

Multiple Models: N/A

Trade Mark: Invixium

FCC ID: S38-IXMC410

Standards: 47 CFR §1.1310

KDB 447498 D01 General RF Exposure Guidance v06

Test Date: 2024-03-18

Test Result: Complied

Report Date: 2024-03-26

Reviewed by:

Abel Chen

Abel Chen
Project Engineer

Approved by:

Jacob Kong

Jacob Kong
Manager

Prepared by:

World Alliance Testing and Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen,
Guangdong, People's Republic of China



This report may contain data that are not covered by the NVLAP accreditation and shall be marked with an asterisk "★"

Announcement

1. This test report shall not be reproduced in full or partial, without the written approval of World Alliance Testing and Certification (Shenzhen) Co., Ltd
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.
5. The information marked “#” is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

Revision History

Version No.	Issued Date	Description
00	2024-03-26	Original

Contents

1	General Information	4
1.1	Client Information	4
1.2	Product Description of EUT	4
1.3	Laboratory Location.....	4
2	RF Exposure Evaluation	5
2.1	Standard	5
2.2	Result.....	6

1 General Information

1.1 Client Information

Applicant:	Invixium Access Inc.
Address:	111 Gordon Baker Road, Suite 300, Toronto Ontario Canada M2H 3R1
Manufacturer:	Invixium Access Inc.
Address:	111 Gordon Baker Road, Suite 300, Toronto Ontario Canada M2H 3R1

1.2 Product Description of EUT

Sample Serial Number	6E-1
Sample Received Date	2024-02-28
Sample Status	Good Condition
Frequency Range	BT/BLE: 2402MHz - 2480MHz 2.4G WLAN: 2412-2462MHz 5G WLAN: 5150-5250MHz, 5250-5350MHz, 5470-5730MHz, 5725-5850MHz
Maximum Conducted Output Power	Bluetooth: 6.76dBm BLE: 7.52dBm 2.4G WLAN: 17.35dBm 5G WLAN: 5150-5250MHz: 14.26dBm 5250-5350MHz: 14.59dBm 5470-5730MHz: 14.59dBm 5725-5850MHz: 13.99dBm
Modulation Technology	Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK BLE: GFSK 2.4G WLAN: DSSS, OFDM 5G WLAN: OFDM
Antenna Gain [#]	2.4G Band: 2dBi 5G Band: 3.3dBi
Power Supply	DC 3.8V
Adapter Information	N/A
Modification	Sample No Modification by the test lab

1.3 Laboratory Location

World Alliance Testing and Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: qa@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

2 RF Exposure Evaluation

2.1 Standard

According to §1.1310, radio frequency devices shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Table 1 to § 1.1310(e)(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)
(i) 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
(ii) 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.

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

2.2 Result

Radio	Frequency (MHz)	Maximum Conducted Power including Tune-up Tolerance		Antenna Gain		Min. test separation distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)	Verdict
		(dBm)	(mW)	(dBi)	(numeric)				
BT	2402-2480	7.0	5	2	1.58	20	0.0016	1	Pass
BLE	2402-2480	8.0	6.31	2	1.58	20	0.0020	1	Pass
2.4G WLAN	2412-2462	17.8	60.26	2	1.58	20	0.0189	1	Pass
5G WLAN	5180-5240	15.0	31.62	3.3	2.14	20	0.0135	1	Pass
	5260-5320	15.0	31.62	3.3	2.14	20	0.0135	1	Pass
	5500-5720	15.0	31.62	3.3	2.14	20	0.0135	1	Pass
	5745-5825	15.0	31.62	3.3	2.14	20	0.0135	1	Pass

Note: The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.

Result: Complied.

---End of Report---