RF Exposure Report

Report No.:	MFBFKV-WTW-P24010541
FCC ID:	L6AITK100-1
Test Model:	ITK100-1
Received Date:	2024/1/24
Test Date:	2024/1/26 ~ 2024/2/2
Issued Date:	2024/3/11
Applicant:	BlackBerry
Address:	2200 University Ave E, Waterloo, ON N2K 0A7
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
MFBFKV-WTW-P24010541	Original release.	2024/3/11

1 Certificate of Conformity

Product:	Radar R2 IS
Brand:	BlackBerry
Test Model:	ITK100-1
Sample Status:	Engineering sample
Applicant:	BlackBerry
Test Date:	2024/1/26 ~ 2024/2/2
FCC Rule Part:	FCC Part 2 (Section 2.1091)
Standards:	KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Polly Chien , **Date:** 2024/3/11

Polly Chien / Specialist

Approved by : Jeremy Lin , **Date:** 2024/3/11

Jeremy Lin / Project Engineer

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
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

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

2.3 Classification

The antenna of this product, under normal use condition, is at least 20 cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Frequency Range	Antenna Type	Connector	Gain(dBi)
2405 ~ 2480MHz	Monopole	N/A	3.57
903-927MHz	Monopole	N/A	2.18
77~81GHz	antennas on chip with external Horn Waveguide	N/A	20.2

*Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2.5 Calculation Result

Band	Frequency Band	Max. AV Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
SRD	903~927 MHz	18.86	2.18	20	0.025	0.601
SRD	2405 ~ 2480 MHz	19.08	3.57	20	0.037	1.00

Band	Frequency Band	EIRP Power (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
Part 95	78.82 GHz	24.72	20	0.059	1
Part 95	78.98 GHz	24.14	20	0.052	1

Note:
1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. SRD & other technology cannot transmit same time.

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