

RF Exposure Report

Report No.: SA200715C05

FCC ID: L6AITF100-1

Test Model: ITF100-1

Received Date: Jul. 15, 2020

Date of Evaluation: Oct. 28, 2020

Issued Date: Nov. 04, 2020

Applicant: BlackBerry Limited

Address: 2200 University Avenue East, Waterloo, Ontario, Canada 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



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits for Maximum Permissible Exposure (MPE)	5
2.2 MPE Calculation Formula	5
2.3 Classification	5
2.4 Antenna Gain	5
2.5 Calculation Result of Maximum Conducted Power	6

Release Control Record

Issue No.	Description	Date Issued
SA200715C05	Original Release	Nov. 04, 2020

1 Certificate of Conformity

Product: Radar H2

Brand: BlackBerry

Test Model: ITF100-1

Sample Status: Identical Prototype

Applicant: BlackBerry Limited

Date of Evaluation: Oct. 28, 2020

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3-2002

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 : Lena Wang , **Date:** Nov. 04, 2020
Lena Wang / Specialist

Approved by : Dylan Chiou , **Date:** Nov. 04, 2020
Dylan Chiou / Senior 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

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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 20cm away from the body of the user.
So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

SRD 902~928 MHz: Monopole Antenna with 0.54 dBi gain

SRD 2.4G: Inverted F Antenna with 3.42 dBi gain

WWAN:

Antenna Type	Monopole with gnd resonator					
Band	PCS1900 / WCDMA	GSM 850 / WCDMA	LTE			
	2	5	2	4	5	12
Gain (dBi)	2.01	0.57	2.01	2.54	0.57	-3.32

2.5 Calculation Result of Maximum Conducted Power

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
GSM 850	824-849	31.45	0.57	20	0.317	0.55
PCS1900	1850-1910	29.12	2.01	20	0.258	1.00
WCDMA II	1850-1910	21.33	2.01	20	0.043	1.00
WCDMA V	824-849	23.17	0.57	20	0.047	0.55
LTE 2	1850-1910	21.51	2.01	20	0.045	1.00
LTE 4	1710-1755	21.61	2.54	20	0.052	1.00
LTE 5	824-849	22.65	0.57	20	0.042	0.55
LTE 12	699-716	22.60	-3.32	20	0.017	0.47
SRD	904 ~ 926	17.24	0.54	20	0.012	0.601
SRD	2405 ~ 2475	16.54	3.42	20	0.020	1.00

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
3. SRD & WWAN technology cannot transmit same time.

--- END ---