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

Testing Laboratory
2021

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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 : , **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

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

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 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.

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