RF Exposure Report

Report No.:	SA190531C22
FCC ID:	VBNAHIB-01
Test Model:	AHIB
Received Date:	May 31, 2019
Test Date:	Aug. 16 ~ Aug. 19, 2019
Issued Date:	Aug. 20, 2019
Applicant:	Nokia Solutions and Networks OY
Address:	6000 Connection Drive, Irving, TX 75039
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
Test Location:	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)
FCC Registration / Designation Number:	788550 / TW0003

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
SA190531C22	Original release.	Aug. 20, 2019

1 Certificate of Conformity

Product:	AirScale Base Station RRH 2100MHz
Brand:	Nokia
Test Model:	AHIB
Sample Status:	Production Unit
Applicant:	Nokia Solutions and Networks OY
Test Date:	Aug. 16 ~ Aug. 19, 2019
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1

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 : Celine Chou , **Date:** Aug. 20, 2019

Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Aug. 20, 2019

Bruce Chen / 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/cm2)	Average Time (minutes)
(A)Limits For Occupational / Control Exposures				
300-1500	…	…	F/300	6
1500-100,000	…	…	5	6
(B)Limits For General Population / Uncontrolled Exposure				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

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

For General Population

The antenna of this product, under normal use condition, is at least 280cm away from the body of the user. So, this device is classified as **fixed device**.

For Occupational Population

The antenna of this product, under normal use condition, is at least 126cm away from the body of the user. So, this device is classified as **fixed device**.

2.4 Antenna Gain

Antenna Spec.	Direction Panel antenna with 16.4dBi gain
Antenna Model	NA
Antenna Gain	16.4dBi

3 Calculation Result of Maximum Tune up Power

For General Population

Function	Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WCDMA Band 10 + LTE Band 66	2110 ~ 2200	59.93	280	0.999	1

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For Occupational Population

Function	Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WCDMA Band 10 + LTE Band 66	2110 ~ 2200	59.93	126	4.932	5

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

4 Brief Summary of results

The wireless device described within this report has been shown to be capable of compliance with the basic restrictions related to human exposure to electromagnetic fields for both General public and Occupational. The calculations shown in this report were made in accordance the procedures specified in the applied test specification(s)

Configuration	Required Compliance Boundary(cm)	
	Occupational	General Population
WCDMA Band 10 + LTE Band 66	126	280

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