RF Exposure Report

Report No.:	SA190115C29
FCC ID:	2AD8UAHBC01
Test Model:	AHBC
Received Date:	Jan. 15, 2019
Test Date:	Jan. 29 ~ Feb. 11, 2019
Issued Date:	Feb. 14, 2019
Applicant:	Nokia Solutions and Networks, OY
Address:	2000 W. Lucent Lane, Naperville, IL 60563, USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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

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Release Control Record

Issue No.	Description	Date Issued
SA190115C29	Original release	Feb. 14, 2019

1 Certificate of Conformity

Product:	AirScale Micro Remote Radio Head
Brand:	Nokia
Test Model:	AHBC
Sample Status:	Engineering sample
Applicant:	Nokia Solutions and Networks, OY
Test Date:	Jan. 29 ~ Feb. 11, 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:** Feb. 14, 2019

Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Feb. 14, 2019

Bruce Chen / 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 287cm 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 129cm away from the body of the user. So, this device is classified as **fixed device**.

2.4 Antenna Gain

Model Name	AHBC
Sales Item	474230A
Antenna Spec.	Calculation based on the gain of this example Nokia antenna is a maximum of 7dBi ± 1dBi.
Antenna Gain	8dBi

3 Calculation Result of Maximum Tune up Power

For General Population

Function	Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
LTE Band 14	760.5-765.5	55.03	57.18	287	0.505	0.507

For Occupational Population

Function	Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
LTE Band 14	760.5-765.5	55.03	57.18	129	2.498	2.535

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
LTE Band 14	129	287

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