



## RF Exposure Report

**Report No.:** SA151123E10

**FCC ID:** 2AD8UNBTM01

**Test Model:** NBTM01

**Received Date:** Nov. 23, 2015

**Test Date:** Dec. 08, 2015

**Issued Date:** Dec. 18, 2015

**Applicant:** Nokia Solutions and Networks

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### Release Control Record

Issue No.	Description	Date Issued
SA151123E10	Original release.	Dec. 18, 2015



## 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 <sup>2</sup> )	Average Time (minutes)
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<sup>2</sup>

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 fixed device.

### 3 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

Antenna Spec.					
Antenna Condition	Brand	Model	Antenna Type	Gain(dBi)	Frequency (MHz)
Internal BT Ant	NA	Fz PICO	PCB	1.45	2400~2500
Antenna Condition	Brand	Model	Antenna Type	Gain(dBi) <Including cable loss>	Frequency (MHz)
External BT Ant	NA	NA	Dipole	0	2400~2500

Cable Spec.					
Brand	Model	Connector Type	Cable Loss(dB)	Cable Length (cm)	Note
NA	NA	U.FL to RP SMA type (M)	1	10	This cable will be equipped with dipole antenna

#### 4 Calculation Result

Calculation for Maximum Conducted Power

For BT

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2402-2480	9.099	1.45	20	0.00253	1

## 5 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(m)	
	Occupational	General Population
Bluetooth	0.2	0.2

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