




**Exhibit: RF Exposure – FCC
FCC ID: 2A652-JA-SB-77-01**

Report File #: TR-7169011235-FCCMPE-001

Client	Nokia Canada Inc	
Product	7705 SAR-Hmc NA(3HE12472AA)	
Standard(s)	FCC KDB 447498:2015	

RF Exposure – FCC

Radiofrequency Radiation Exposure Evaluation: Mobile Devices

Mobile devices shall be evaluated for RF radiation exposure according to the provisions of [FCC §2.1091 \(d\) \(2\)](#) (with Amendment 85 [FR18146](#), April 1, 2020) and the MPE guidelines identified in [FCC §1.1310](#).

As per FCC §1.1310 Table 1(B), the limit for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields for General Population/Uncontrolled Exposure in the frequency range of:

✓ 1.5GHz to 100GHz is 1.0 mW/cm².

The power density can be calculate using the formula:

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

where,

f = frequency in MHz

P_d = Power density in mW/cm²

P_{out} = Conducted output power to antenna in mW

G = Numeric Antenna Gain

Pi = 3.1416

R1 = 2000 cm.

MPE Calculation:

For user general use at 2000 cm (20 meters) distance, as stated by the client, the maximum conducted output power of 46 dBm per port, 8 ports the EUT complies with limits of General Population/Uncontrolled Exposure according to Table 2.


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Table 2. Uncontrolled Exposure at 2000 cm distance and 46 dBm Power Output per port

<u>Prediction of MPE limit at a given distance</u>				
Equation from page 18 of OET Bulletin 65, Edition 97-01				
$S = \frac{PG}{4\pi R^2}$				
where:	S = power density			
	P = power input to the antenna			
	G = power gain of the antenna in the direction of interest relative to an isc			
	R = distance to the center of radiation of the antenna			
Maximum peak output power at antenna input terminal:				46.00 (dBm)
Maximum peak output power at antenna input terminal:				39810.71706 (mW)
Number of Ports				8
Antenna gain(typical):				21
Antenna gain(total):				30.03089987 (dBi)
Maximum antenna gain:				1007.140329 (numeric)
Time Averaging:				100 (%)
Prediction distance:				2000 (cm)
Prediction frequency:				3750 (MHz)
E limit for uncontrolled exposure at prediction frequency:				1
Power density at prediction frequency:				0.797664 (mW/cm^2)
Margin of compliance:				-1.0 (dB)
This equates to				7.976642565 W/m^2
For information	This equates to			54.83789061 V/m

The EUT meets the requirements