

**Exhibit 3**

**FCC REQUIRED INFORMATION**

The following information is presented in the content and format requested by the FCC:

**Section 2.1033 (c)(1):**

The full name and mailing address of the manufacturer of the device and the applicant for certification

Manufacturer:	Nokia Solutions and Networks US LLC 6000 Connection Drive Irving, TX, 75039 Attention: Steve Mitchell
Applicant:	Nokia Solutions and Networks US LLC 3201 Olympus Blvd Dallas, TX, 75019 Attention: Steve Mitchell Phone: 972-936-7500 email: <a href="mailto:steve.mitchell@nokia.com">steve.mitchell@nokia.com</a>

**Section 2.1033(c)(2):** FCC Identifier: **VBNAEHC-01**

**Section 2.1033(c)(4):** Type or types of emission:

This Transceiver System supports the **3GPP 5G-NR and LTE** technologies. The subject of this certification request is for operation using the **3GPP LTE** modulation format in QPSK, 16QAM 64QAM and 256QAM (LTE-TDD) for one to three LTE carriers and **3GPP 5G-NR** modulation format in QPSK, 16QAM 64QAM and 256QAM. The transceiver can be configured for the various transmit configurations by varying the digital information provided from the baseband channel electronics alone without physical, hardware or circuit changes to the transceiver.

<b>LTE</b>	
<b>BW (MHz)</b>	<b>Emissions Designation</b>
20	17M8F9W

**5G-NR**

<b>BW (MHz)</b>	<b>Emissions Designation</b>
40	38M0G7W
60	57M7G7W
100	97M2G7W

**Section 2.1033(c)(5):** Frequency range, Transmit / Receive: **2496-2690 MHz**

**Section 2.1033(c)(6):** Range of operating power values or specific operating power levels, and description of any means provided for variation of operating power.

**Response:**

The Nokia **AirScale MAA 64T64R 192AE B41 320W AEHC (AEHC) FCC ID: VBNAEHC-01** has 64 transmit/receive outputs. Each output can produce 1 to 6 RF carriers. Each carrier has a maximum power based on BW up to 37 dBm for a total of 37 dBm per port. This results in a total output power of 320 Watts for all ports.

<b>BW (MHz)</b>	<b>Total (64 ports) power (W)</b>	<b>Port power (W)</b>	<b>Port power (dBm)</b>
100	320.0	5.0	37.0
60	243.2	3.8	35.7
40	160.0	2.5	34.0
20	102.4	1.6	31.9

RF Power control of the AEHC transceiver is accomplished via software control of the data stream and the RF power gain. The software controls the RF power gain through the RF transmit path with a Digital Step Attenuator (DSA) to maintain the correct RF power of the AEHC over frequency and temperature range. The DSA gain control has a resolution of 1 dB per step and an overall range of 10 dB.

Separate circuitry is provided to inhibit the carrier output if a synthesizer in the transmit path loses lock.

**Exhibit 3 FCC REQUIRED INFORMATION *continued***

**Section 2.1033(c)(7):** Maximum power rating as defined in the applicable part (s) of the rules.

**Response:**

The AEHC maximum total RF output power is 320 Watts which is the sum of all of its 64T/64R transmit ports.

**Section 2.1033 (c)(10):** A description of all circuitry and devices for determining and stabilizing frequency.

**Response:**

The subject of this application is designed to operate in the B41 frequency band. It supports CPRI timing reference signals to regulate internal timing including the RF frequency accuracy. All of the timing reference signals (frequency and phase alignment) and baseband signals are generated in the GPS capable baseband unit and provided to the radio through CPRI interface.

The carrier frequency is determined by the direct up-conversion of digital baseband signals to radio frequencies. Frequency stability of the carrier frequency is achieved with accuracy better than  $\pm 0.05$  ppm by phase locking the internal frequency synthesizers to reference timing signals. The frequency accuracy on the system clock for frequency synchronization is maintained by disciplining the master oscillator output with an available external reference source.