Applicant: Nokia Solutions and Networks US LLC FCC ID: VBNAHCC-01



Bell Labs

Timco Engineering Inc.
FCC Authorized Telecommunications
Certification Body (TCB)

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April 18, 2019

Timco Engineering Inc.
FCC Authorized Telecommunication Certification Body
849 N.W. State Road 45, P.O. Box 370
Newberry, Florida 32669

Dear Examiner:

Nokia, Global Product Compliance Laboratory 600-700 Mountain Avenue Room 5A-107 Murray Hill, New Jersey 07974-0636 USA

The Nokia AHCC AirScale RRH 4T4R B26A (AHCC) is the subject of this request for a new FCC Product Certification under FCC ID: VBNAHCC-01. The AHCC is a LTE-FDD (Long Term Evolution-Frequency Division Duplex) transceiver and operates in Band 26A Broadband Radio Service (BRS) spectrum (862.6-869 MHz). The AHCC supports 2x40W MIMO and 4x 25W MIMO operation with a maximum total RF output power of 80 W for its 2T/2R operation and a maximum total RF output power of 100 W for 4T/4R operation. AHCC also support Standalone NBIoT. Nokia Bell Labs, part of the Nokia family of companies, hereby requests this certification for multicarrier operation. This is a new design and all of the required supporting exhibits are attached.

The measurement exhibits attached to this application demonstrate full compliance with FCC Part 90 following the procedural requirements specified in FCC Part 2 Subpart J – Equipment Authorization Procedures.

The data, summarized below, is in the form presently used by the Commission's Radio Equipment List.

Equipment Identification: VBNAHCC-01 FCC Rules Part Number: Part 90

Emissions Designator(s): 1M10F9W, 2M69F9W, 4M48F9W and 193KF9W

Frequency Range: E-UTRAN Band 26A, 862.6-869 MHz

Output Power: 100W total with 4x4 MIMO Configuration

80 W total with 2x2 MIMO Configuration

Frequency Tolerance: ± 0.05 ppm

LTE Carriers 1.4 MHz, 3.0 MHz, 5.0 MHz

Standalone NBIoT 0.2 MHz

Enclosed in this application package are FCC 731 Form, agent authorization letter, the required measurement data and other required exhibits specific to this request for authorization of the subject product. The measurement exhibits attached to this application demonstrate full compliance with FCC Part 27 following the procedural requirements specified in FCC Part 2 Subpart J – Equipment Authorization Procedures. The supporting exhibits are assembled and presented in accordance with the *Table of Contents* attached below.

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List of Confidential Exhibits

Exhibit #	FCC Rule Section	Exhibit Title
Exhibit 5	Section 2.1033(c)(8,9)	Active Circuit Devices Drive Levels, Tune-Up procedure
Exhibit 6	Section 2.1033(c)(10,13)	Block Diagram, Operational Description, Circuitry for determining frequency)
Exhibit 7	Section 2.1033(c)(10)	Complete Circuit Diagrams)
Exhibit 8	Section 2.1033(c)(12,3)	Instruction Book (Installation Manual or User Manual)
Exhibit 9	Section 2.1033(c)(12)	Internal Photographs of the Equipment

Should there be any questions or procedural issues please feel free to contact me by email and/or phone.

Sincerely,

W. Steve Majkowski NCE

Walter & May Lha

Member of Technical Staff, Filing Lead Engineer Nokia, Global Product Compliance Laboratory

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Att. Table of Contents for the Nokia AHCC AirScale RRH 4T4R B26A (AHCC) Product Certification Report

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Cover Letter

Request for Confidentiality

Exhibit <u>Numbe</u> 1	r FCC Rule Number Section 2.1033(a)	Description FCC Form 731
2	Section 2.911(d)	Qualifications and Certifications
3	Section 2.1033(c)(1,2, 4-7)	Manufacturers, FCC Identifier, Emission, Range of RF Power & Frequency
4	Section 2.1033(c)(11)	Drawing of the Identification Label
5	Section 2.1033(c)(8,9)	Active Circuit Devices Drive Levels, Tune-Up procedure (Confidential)
6	Section 2.1033(c)(10,13)	Block Diagram, Operational Description, Circuitry for determining frequency (Confidential)
7	Section 2.1033(c)(10)	Complete Circuit Diagrams (Confidential)
8	Section 2.1033(c)(12,3)	Instruction Book (Installation Manual or User Manual) (Confidential)
9	Section 2.1033(c)(12)	Internal Photographs of the Equipment (Confidential)
10	Section 2.1033(c)(12)	External Photographs of the Equipment Short Term Confidential
11	Section 2.1033(c)(10, 13)	Description of Modulation System
12	Section 2.1033(c)(14)	Test Report
13	Sections 1.1307 & 1.1310	RF Exposure Assessment
14	Section 2.1033(c)(21)	Photographs of the Test Setups Short Term Confidential

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