



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

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

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:

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 NBloT. 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 NBloT	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.

List of Confidential Exhibits

<u>Exhibit #</u>	<u>FCC Rule Section</u>	<u>Exhibit Title</u>
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
Member of Technical Staff, Filing Lead Engineer
Nokia, Global Product Compliance Laboratory
Building 5B-103
600-700 Mountain Avenue P.O. Box 636
Murray Hill, NJ 07974-0636
Phone +1 908 608 8004
email: steve.majkowski@nokia-bell-labs.com

Filing Engineer

Steve Gordon
Member of Technical Staff
Nokia, Global Product Compliance Laboratory
Building 5A-107
600-700 Mountain Avenue P.O. Box 636
Murray Hill, NJ 07974-0636
Phone +1908 679 5914
email: Steve.gordon@nokia-bell-labs.com

Reviewed by:

Raymond J. Johnson
Technical Manager
FCC Compliance Test Group
Nokia, Global Product Compliance Laboratory Phone: +1
Building 5A-127
600 Mountain Avenue
Murray Hill, NJ 07974-0636
Phone: +1 908 679 6220
email: ray.johnson@nokia-bell-labs.com

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

TABLE OF CONTENTS

Cover Letter

Request for Confidentiality

Exhibit Number	FCC Rule Number	Description
1	Section 2.1033(a)	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