



Bell Labs

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FCC Authorized Telecommunications  
Certification Body (TCB)

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

**Subject: Application for Class II Change to FCC ID: VBNAHNA-01 for Nokia AHNA AirScale RRH 4T4R B30 100W (AHNA), Operating in Band 30.**

Dear Examiner:

The Nokia Solutions and Networks **AHNA AirScale RRH 4T4R B30 100W (AHNA)** (hereinafter referred to as "AHNA") is the subject of this application for an FCC Class II Permissive Change to the Product Certification under FCC ID: VBNAHNA-01. The **AHNA** is a 10 MHz bandwidth LTE/New Radio Transceiver with a total power output capability of 50 dBm (100W). It operates as a 4x4 MIMO transmitter in the **Part 27 MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES** spectrum utilizing **LTE-FDD** technology.

The AHNA is an LTE-FDD (Long Term Evolution-Frequency Division Duplex) transceiver and operates in Band 30 Broadband Radio Service (BRS) spectrum (2350 - 2360 MHz). The AHNA currently supports 5 MHz and 10 MHz carriers and 4x4 MIMO operation with a maximum total RF output power of 100W at its 4T/4R transmit ports.

This Class II Permissive Change is to add 5G-NR capability for 5 and 10 MHz Single Carriers, plus 5+5 MHz Multicarrier operation to the existing Grant. Nokia Bell Labs, part of the Nokia family of companies, hereby requests this certification for 5G-NR operation. This change is by software only.

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

<b>Equipment Identification:</b>	<b>VBNAHNA-01</b>
<b>Rules Part Number:</b>	<b>Part 27</b>
<b>Emissions Designator(s):</b>	<b>4M46W7W, 9M26W7W</b>
<b>Frequency Range:</b>	<b>Transmit/ Receive: 2350 – 2360/2305 – 2315 MHz</b>
<b>Output Power:</b>	<b>100W total with 4x4 MIMO Configuration</b>
<b>Frequency Tolerance:</b>	<b>± 0.05 ppm</b>
<b>Carriers</b>	<b>5 MHz and 10 MHz Single carriers plus 5+5 MHz Multi-carrier</b>

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.

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

Sincerely,

Filing Engineer



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Att. Table of Contents for the Nokia **AHNA AirScale RRH 4T4R B30 100W (AHNA)** Class II Permissive Change Report.

## TABLE OF CONTENTS

Cover Letter

Agent Authorization Letter

### Exhibit

<u>Number</u>	<u>FCC Rule Number</u>	<u>Description</u>
1	Section 2.1033(a)	FCC Form 731
2	Section 2.911(d)	Qualifications and Certifications
3	Section 2.1033(c)(14)	FCC Test Report
4		Photographs of the Test Setups