



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

**Nokia Global Product Compliance Laboratory**  
**600-700 Mountain Avenue, Room 5A-107**  
**Murray Hill, NJ 07974, USA**

**June 28, 2023**

**Subject: Application for Class II Permissive Change under FCC ID: 2AD8UAWPQYAWPQZ01 for Nokia AirScale Indoor pico RRH 4T4R n48 AWPQY/Z.**

Dear Examiner:

The Nokia **AirScale Indoor pico RRH 4T4R n48 AWPQY/Z** (hereinafter referred to as “AWPQY/Z”) is the subject of this application for Class II Permissive Change Certification under FCC ID: 2AD8UAWPQYAWPQZ01. The **AWPQY/Z** is an LTE-TDD (Long Term Evolution-Time Division Duplex) and 5G-NR transceiver which operates in Band 48 Citizens Broadband Radio Service (CBRS) spectrum (3550-3700 MHz).

The Original **AWPQY/Z Certification** supported 10MHz and 20 MHz single LTE carriers, plus 10+10 MHz multiple carriers. The **AWPQY/Z** also supported 5G-NR 20, 30, 40, 50, 60, 70, 80, 90 and 100 MHz single carriers and 20+100 MHz & 50+100 MHz dual carrier with 4T/4R modes of operation and a maximum total RF power output capacity of 1.0 W at its 4T/4R transmit ports.

This Class II Permissive Change introduces the addition of a single 10MHz New Radio (NR) carrier, alongside an increased maximum limit of four carriers for Long-Term Evolution (LTE) or NR. These multi-carrier configurations can be either contiguous or non-contiguous. Nokia Bell Labs, part of the Nokia family of companies, hereby requests this certification for 5G-NR operation.

The key data are summarized below.

<b>FCC ID:</b>	<b>2AD8UAWPQYAWPQZ01</b>
<b>FCC Rules:</b>	<b>Part 96</b>
<b>Frequency Range:</b>	<b>E-UTRAN Band 48, 3550-3700 MHz</b>
<b>Conducted Output Power:</b>	<b>Up to 30.0 dBm (1.0 W) Total</b>
<b>EIRP Power:</b>	<b>Up to 57.51dBm (563.6 W) Average Total</b>
<b>Frequency Tolerance:</b>	<b>± 0.05 ppm</b>
<b>NR Emissions Designators</b>	<b>8M63W7W</b>
<b>Carriers:</b>	<b>Single 5G-NR Carriers: 10 MHz</b>
	<b>Multiple 5G-NR Carriers: 100+10+20+20 MHz</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 96 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,



Raymond J. Johnson  
Technical Manager  
Global Product Compliance Laboratory  
Phone: 908-679-6220  
email: [ray.johnson@nokia-bell-labs.com](mailto:ray.johnson@nokia-bell-labs.com)

Filing Engineer  
Steve Gordon  
email: [steve.gordon@nokia-bell-labs.com](mailto:steve.gordon@nokia-bell-labs.com)

## TABLE OF CONTENTS

Cover Letter

Agent Authorization Letter

Attestation Statements Part 2.911(d)(5)(i)

Attestation Statements Part 2.911(d)(7)

### Required Exhibits:

<u>Exhibit Number</u>	<u>FCC Rule Number</u>	<u>Description</u>
1	Section 2.1033(a)	FCC Form 731
2	Section 2.911(d)(e)	Qualifications and Certifications
3	Section 2.1033(c)(21)	Photographs of the Test Setups
4	Section 2.1033(14), 2.911(e)	Test Report
5	Section 1.1307(b) & 1.1310	RF Exposure Test Report