



Bell Labs

Timco Engineering Inc.
FCC Authorized Telecommunication
Certification Body
13146 NW 86th Drive Suite 400
Alachua, FL 32615

Nokia Global Product Compliance Laboratory
600-700 Mountain Avenue, Room 5A-107

Murray Hill, NJ 07974, USA

June 17, 2024

Subject: Application for Class II Permissive Change under FCC ID: 2AD8UAWHQ01 for AWHQU AirScale Micro 4T4R n48 40W CBRS 20W.

Dear Examiner:

The Nokia **AWHQU AirScale Micro 4T4R n48 40W CBRS 20W** (hereinafter referred to as "AWHQU") is the subject of this application for Original Equipment Certification under FCC ID: 2AD8UAWHQ01. The AWHQU 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 **AWHQU** supports 10 MHz and 20 MHz single LTE carriers, plus 10+10 MHz multiple carriers. The **AWHQU** also supports 5G-NR 10, 20, 30, 40, and 80 MHz single carriers and 40+40 MHz dual carrier with 4T/4R modes of operation. **LTE and 5G-NR Multi Carrier Operation up to 2 carriers, any combinations of approved bandwidths.** The **AWHQU** operates with a maximum total RF power output capacity of 20.0 W at its 4T/4R transmit ports.

The **AWHQU** is equipped with a directional antenna with a maximum total gain of 18.0 dBi for 4T/4R. Nokia Bell Labs, part of the Nokia family of companies, hereby requests this certification for LTE and 5G-NR operation.

A Class II Permissive Change was requested to add Concurrent 5G and LTE (7 carrier) at maximum power with (LTE maximum 4 carriers, 5G-NR maximum 3 carriers). 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 and LTE (7 carrier) operation.

This Class II change will lower the LTE 10 MHz carrier power to a level compliant with the Power Spectral Density limit of 37 dBm/MHz. The 5G power on the Grant is increased since the power level did not reflect the correct maximum power for the 10 MHz signal during the initial certification. The power of the 10 MHz signal is well below the maximum power previously demonstrated for the product (343.6 W).

The key data are summarized below.

FCC ID:	2AD8UAWHQ01
FCC Rules:	Part 96
Frequency Range:	E-UTRAN Band 48, 3550-3700 MHz
Conducted Output Power:	Up to 43.0 dBm (20.0 W) Total

Public

EIRP Power:	Up to 55.4 dBm (343.6 W) Average Total
Frequency Tolerance:	± 0.05 ppm
Carriers:	Concurrent Multiple 5G-NR & LTE Carriers

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

Filing Engineer
Steve Gordon
email: steve.gordon@nokia-bell-labs.com

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Agent Authorization Letter

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

Attestation Statements Part 2.911(d)(7)

Required Exhibits:

Exhibit

<u>Number</u>	<u>FCC Rule Number</u>	<u>Description</u>
1	Section 2.1033(a), 2.911(d)	FCC Form 731
2	Section 2.911(e)	Qualifications and Certifications
3	Section 2.1033(c)(24)	Photographs of the Test Setups
4	Section 2.1033(17), 2.911(e)	Test Report
5	Sections 2.1033(f), 1.1307 & 1.1310	RF Exposure Assessment (MPE Report)