



Bell Labs

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

Murray Hill, NJ 07974, USA

September 11, 2023

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.

This Class II Permissive Change will 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.

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
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,



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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)
6	Section 2.1033(c) (14) & 2.925 (a) (1)	Identification Label