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

September 27, 2023

Subject: **Application for Class II Change to FCC ID: VBNAHCF-01 for AHCF AirScale RRH 4T4R B5 200W.**

Dear Examiner:

The Nokia AHCF AirScale RRH 4T4R B5 200W (RRH) (hereinafter referred to as "AHCF") is a higher power RRH operating under the regulations of FCC Part 22 - Cellular Telephone Systems Operating in Band 5, 869-894 MHz. The AHCF supports 5G-NR and Long Term Evolution - Frequency Division Duplex (LTE FDD) technology, 4 MIMO ports configured for 2x60W + 2x40W or 4x40 MIMO. The AHCF also supports single and multiple carriers, with combinations of LTE + NBIoT (Guardband and Inband), NBIoT Standalone, and 5G-NR, as well as single and multiple carrier operations.

The AHCF was originally filed for the following LTE and 5G-NR carrier configurations:

- 200 kHz – Standalone NB-IoT
- 1.4 MHz – Single LTE carrier
- 3 MHz – Single LTE carrier
- 5 MHz – Single LTE carrier, 5 MHz LTE + NB-IoT Standalone, 5+5 MHz LTE + NB-IoT Standalone
- 10 MHz – Single LTE carrier, 10 MHz LTE with NB-IoT Inband or NB-IoT Guardband
- 5 MHz – Single 5G-NR carrier
- 10 MHz – Single 5G-NR carrier

This Class II Change is for addition of 5G-NR 15 MHz and 20 MHz emissions designators.

RF Conducted testing was performed at the antenna port for two power levels 60W (TX1 and TX3) and at 40W (TX2 and TX4) for all four ports.

The key data are summarized below.

FCC ID:	**VBNAHCF-01**
FCC Rules:	**Part 22**
Frequency Range:	**E-UTRAN Bands 5, 869-894 MHz**
Conducted Output Power:	**Up to 47.8 dBm (200W Total)**
Frequency Tolerance:	**± 0.05 ppm**

Emissions Designators	**14M1W7W, 18M9W7W**
Carriers:	**15 and 20 MHz (5G-NR)**

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 22 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
Nilesh Patel
email: nilesh.patel@nokia-bell-labs.com

TABLE OF CONTENTS