

**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

01/05/2024

**Subject: Application for Original Equipment Certification under FCC ID: VBNAKQW-01 for
AKQW AirScale RRH 8T8R 320W.**

Dear Examiner:

The Nokia **AKQW AirScale RRH 8T8R n77 320W** (hereinafter referred to as “AKQW”) is a RRH operating under the regulations of FCC Part 27 - Cellular Telephone Systems Operating in Band n77, 3700-3980 MHz. The AKQW supports 5G-NR TDD technology, up to 8 MIMO ports configured for 8x40W (320W Total). The AKQW supports single and multiple contiguous and non-contiguous carriers.

The power levels tested were limited for 20MHz (160 W), 30 MHz (240 W) and 40 MHz (280 W) carriers. The full 320 W power capability of the EUT was tested for all remaining configurations.

The key data are summarized below.

FCC ID:	VBNAKQW-01
FCC Rules:	Part 27
Frequency Range:	Band n77, 3700-3980 MHz
Conducted Output Power:	Up to 46 dBm/Port (320W Total)
Frequency Tolerance:	± 0.05 ppm
Emissions Designators:	18M9G7W, 28M0G7W, 37M9G7W, 47M4G7W, 58M1G7W, 67M6G7W, 77M7G7W, 87M5G7W, 97M3G7W

Enclosed in this application package are FCC 731 Form, letters of Request for Permanent Confidentiality, 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,



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Required Exhibits:

Exhibit Number	FCC Rule Number	Description
1	Section 2.1033(a), 2.911(d)	FCC Form 731
2	Section 2.911(d)	Qualifications and Certifications
3	Section 2.1033(c) (1,5,7-10)	Manufacturers, FCC Identifier, Emission, Range of RF Power & Frequency
4	Section 2.1033(c)(14), 2.925(a)(1)	Drawing of the Identification Label
5	Section 2.1033(c)(11,12,16)	Active Device Tune-up, Modulation System, Operation (Confidential)
6	Section 2.1033(c)(13)	Block Diagram (Confidential)
7	Section 2.1033(c)(13)	Complete Circuit Diagrams (Confidential)
8	Section 2.1033(c)(6)	Installation Manual (Confidential)
8a	Section 2.1033(c)(6)	Manual - NDA (Confidential)
9	Section 2.1033(c)(15)	Internal Photographs of the Equipment (Confidential)
10	Section 2.1033(c)(15)	External Photographs of the Equipment
11	Section 2.1033(c)(24)	Photographs of the Test Setups
12	Sections 2.1033(f), 1.1307 & 1.1310	RF Exposure Assessment (MPE Report)
13	Section 2.1033(c)(13)	Parts List (Confidential)
14	Section 2.1033(17), 2.911(e)	Test Report