

Timco Engineering Inc.
FCC Authorized Telecommunications
Certification Body (TCB)

October 29, 2021

Timco Engineering Inc. 849 N.W. State Road 45 P.O. Box 370 Newberry, Florida 32669 Nokia, Global Product Compliance Laboratory 600-700 Mountain Avenue Room 5B-108 Murray Hill, New Jersey 07974-0636 USA

Subject: Application for Class II Permissive Change Certificate Approval for Nokia AirScale Micro RRH 3.5GHz 4T/4R 20W (AZQC) under Certification Number FCC ID: 2AD8UAZQCRH1.

Dear Timco Examiner,

The Nokia AirScale Micro RRH 3.5GHz 4T/4R 20W (AZQC) is the subject of this request for a Part 96 Original FCC Product Certification Filing under FCC ID: 2AD8UAZQCRH1. The AZQC-CBRS is a 150 MHz instantaneous bandwidth LTE Transceiver with a total power output capability of 20 Watts for all 4 ports. This 4x5W MIMO transmitter supports 4 LTE-TDD carriers placed anywhere in the Part 96Z Citizens Broadband Radio Service (CBRS) spectrum.

The Original Filing under **FCC ID**: **2AD8UAZQCRH1** covered Part 96 Certification for LTE-TDD operation with multiple emissions designators and multiple carriers. This application covers **5G-NR mode of operation** for 20 MHz BW. No SAS testing is required since the AZQC was previously approved and the 5G operation does not represent a change to the software version used for testing to SAS and the SAS testing is technology agnostic.

This application is for Part 96 CBRS Class B operation for the full 3550-3700 MHz CBRS band. The **AZQC-CBRS** will use 4x5W MIMO operation using 20M0W7W emissions designator.

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 data, summarized below, is in the form presently used by the Commission's Radio Equipment List.

Equipment Identification: 2AD8UAZQCRH1

Rules Part Number: Part 96

Frequency Range: Transmit/ Receive 3550-3700 MHz (5G-NR)

Output Power: 20 Watts Total Output for 4 Ports operating in a 4x5W configuration

Output EIRP: 50.12 Watts EIRP

Frequency Tolerance: ± 0.05 ppm Emission Designators: 20M0W7W

Grant Notes: EP, MO, 20W total for 4 ports, Multicarrier MIMO Operation

Attached are the FCC Form 731 (Application for Equipment Authorization – Radio Frequency Devices), the required measurement data and exhibits specific to this request for authorization of the **AZQC-CBRS AZQCRH1**. The technical or non-technical contact at Nokia Bell Labs will comply with any request for additional information should the need arise. The attached exhibits with the applicable FCC Rule section are assembled and presented in accordance with the *Table of Contents* attachment.

FCC ID: 2AD8UAZQCRH1

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

FCC Compliance Test Group

Raymond L. Johnson

Nokia, Global Product Compliance Laboratory

Phone: +1 908 679 6220

email: ray.johnson@alcatel-lucent.com

Primary Administrative Contact

Raymond J. Johnson
Technical Manager
FCC Compliance Test Group
Nokia, Global Product Compliance Laboratory
Building 5A-127
600 Mountain Avenue

Murray Hill, NJ 07974 Phone: +1 908 679 6220

email: ray.johnson@alcatel-lucent.com

Filing Engineer

Steve Gurdon

Steve Gordon

Global Product Compliance Laboratory

Building 5A-107

600 Mountain Avenue

Murray Hill, NJ 07974

Phone 908-679-5014

email: steve.gordon@nokia-bell-labs.com

Att. Table of Contents for the Nokia AirScale Micro RRH 3.5GHz 4T/4R 20W (AZQC) - (2AD8UAZQCRH1) Product Certification Report

TABLE OF CONTENTS

Cover Letter

Exhibit # Exhibit 1	FCC Rule Number Section 2.1033(a)	Description FCC Form 731
Exhibit 2	Section 2.911 (e)	Qualifications and Certifications
Exhibit 3	Section 2.1033(c)(21)	Setup Photographs
Exhibit 4		Test Report