



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

Nokia Global Product Compliance Laboratory
600-700 Mountain Avenue, Room 5B-111

November 18, 2020

Timco Engineering Inc.
849 N.W. State Road 45
P.O. Box 370
Newberry, Florida 32669

Subject: Application for New Equipment Certification Approval for Nokia: AEQK AirScale MAA 64T64R 192AE n77 200W (CPRI) under Certification Number FCCID: VBNAEQK-01

Dear Examiner:

The Nokia **Airscale MAA 64T64R 192AE n77 200W (AEQK)** is a 64 port radio head that transmits 3.125 Watts per port over the n77 spectrum (3700 – 3980 MHz). This product supports single 20MHz, 40 MHz, and 100 MHz 5G-NR carriers utilizing QPSK, 16 QAM, 64QAM and 256QAM modulation formats. The 64 individual transmit ports are identical in design, rated power and performance.

This authorization request is for Airscale MAA 64T64R 192AE n77 200W (AEQK) utilizing the bandwidths (BW), modulations and emission designators previously cited, and over the n77 spectrum 3700 – 3980 MHz, subject to PART 27— MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES. The measurement exhibits attached to this application demonstrate full compliance with FCC Part 27, Subpart C, 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:	VBNAEQK-01
Rules Part Number:	Part 27 Subpart C, Part 27 Emission Limits
Frequency Range:	Transmit 3700-3980 MHz
Output Power:	200 Watts Maximum per Unit (64T64R), 3.125W per Antenna Port
Frequency Tolerance:	± 0.05 ppm
Emission Designator:	18M3W7W, 38M1W7W, and 97M4W7W

Attached are the FCC Form 731 (Application for Equipment Authorization – Radio Frequency Devices), the required measurement data and exhibits specific to this request for the **Airscale MAA 64T64R 192AE n77 200W (AEQK)**. The technical or non-technical contact at Nokia 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.

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
Primary Administrative Contact
Global Product Compliance Laboratory
Building 5B-111
600 Mountain Avenue
Murray Hill, NJ 07974
Phone: 908-679-6220
email: ray.johnson@nokia-bell-labs.com

Filing Engineer
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 **Airscale MAA 64T64R 192AE n77 200W (AEQK)** Product Certification Report

TABLE OF CONTENTS

Cover Letter

Confidentiality Request Letter

Agent Authorization Letter

Required Exhibits:

Exhibit Number	FCC Rule Number	Description
1	Section 2.1033(a)	FCC Form 731
2	Section 2.911(d)	Qualifications and Certifications
3	Section 2.1033(c)(1,2, 4-7)	Manufacturers, FCC Identifier, Emission, Range of RF Power & Frequency
4	Section 2.1033(c)(11)	Drawing of the Identification Label
5	Section 2.1033(c)(8,9) (Confidential)	Active Circuit Devices Drive Levels, Tune-Up procedure
6	Section 2.1033(c)(10,13) (Confidential)	Block Diagram, Operational Description, Circuitry for determining frequency
7	Section 2.1033(c)(10) (Confidential)	Complete Circuit Diagrams
8	Section 2.1033(c)(12,3) (Confidential)	Installation Manual
8a	Section 2.1033(c)(12,3)	Manual - NDA (Non-Disclosure Agreement)
9	Section 2.1033(c)(12) (Confidential)	Internal Photographs of the Equipment
10	Section 2.1033(c)(12)	External Photographs of the Equipment
11	Section 2.1033(c)(21)	Photographs of the Test Setups
12	FCC Test Report	
13	RF Exposure Test Report	
14	Section 2.1033(c)(10) (Confidential)	Parts List

