



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

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

February 07, 2021

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: **AHDB AirScale 2T4R B8 Sub-Band 160W** under Certification Number FCCID: VBNAHDB-01

Dear Examiner:

The Nokia **AHDB AirScale 2T4R B8 Sub-Band 160W** is a 2 port radio head that transmits 40 Watts per port over the B8 spectrum (936.5 - 939.5 MHz). This product supports up to 2x1.4 MHz and 1x3.0 MHz LTE carriers, plus up to 3x.2 MHz NBloT carriers utilizing QPSK, 16 QAM, 64QAM and 256QAM modulation formats. The 2 individual transmit ports are identical in design, rated power and performance.

This authorization request is for the **AHDB AirScale 2T4R B8 Sub-Band 160W (AHDB)** utilizing the bandwidths (BW), modulations and emission designators cited over the B8 spectrum 936.5 - 939.5 MHz, subject to PART 27— MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES. The measurement exhibits attached to this application demonstrate full compliance with FCC Part 27, Subpart P, 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:	VBNAHDB-01
Rules Part Number:	Part 27 Subpart P,
Frequency Range:	Transmit 936.5 - 939.5 MHz
Output Power:	80 Watts Maximum Conducted per Unit (2T4R), 40 W per Antenna Port
Frequency Tolerance:	± 0.05 ppm
Emission Designator:	1M09F9W, 2M70F9W, and 200kF9W

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 **AHDB AirScale 2T4R B8 Sub-Band 160W (AHDB)**. 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,



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Att. Table of Contents for the **AHDB AirScale 2T4R B8 Sub-Band 160W (AHDB)** 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(e)	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)(3) (Confidential)	Installation Manual
8a	Section 2.1033(c)(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	Section 2.1033(c)(14)	FCC Test Report
13	Section 2.1033(f)	RF Exposure Test Report
14	Section 2.1033(c)(10) (Confidential)	Parts List