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Timco Engineering Inc.
FCC Authorized
Telecommunication Certification Body (TCB)
849 N.W. State Road 45
P.O. Box 370
Newberry, Florida 32669

November 4, 2019

Subject: Application for C2PC Equipment Authorization for Nokia Flexi Zone Multiband Outdoor Micro BTS LAA RF Module, Operating in the Band 46b/c UNII-2, under FCC ID: 2AD8U FW2RMBOM1

Dear Examiner:

The Nokia Flexi Zone Multiband Outdoor Micro BTS (MBO) is a small cell that consists of a common digital system module (host) and up to three LTE (Long Term Evolution) RF transceiver modules in various combinations and an optional WiFi AP (Access Point) RF module. Each RF transceiver module supports 2 Tx/Rx.

The FW2RMBOM1 LAA (License Assisted Access) RF Module (MBO LAA) is an LTE Transceiver operating under the regulations of FCC Title 47 Part 15 Subpart E Unlicensed National Information Infrastructure (UNII) Devices or RSS-247 License-Exempt Local Area Network (LE-LAN). It supports LTE LAA technology and has been authorized for operating in the 5735-5835MHz, E-UTRAN Band 46d UNII-3 band, as a Point-to-Multipoint Master Device with one 20 MHz carrier and a maximum RF power of 1W on February 26, 2019 under FCC ID: 2AD8UFW2RMBOM1. Two omni-directional antennas (FA2RA and FA2RD) and one directional antenna (FA2WA) have been approved in its original filing.

The purpose of this Class II Permissive Change Application is to get authorization for the above MBO LAA for operating in the 5250-5350 MHz and 5470-5725MHz Band 46b/c UNII-2 band. There is no change in the hardware.

Per FCC 2.1041(a), the technical requirements specified in FCC 15 Subpart E Section 15.407 needs to be met. Per 2.1043(b)(2), when a Class II permissive change is made by the grantee, the grantee shall provide complete information and the results of tests of the characteristics affected by such change. In accordance with Parts 2 and 15 of the Commission's Rules and Regulations, we are submitting herewith statements and supporting data to show compliance with the requirements of the Commission for the Class II permissive change certification of the Nokia MBO LAA for operation in the UNII-2 bands. The guidelines and guidance provided in the KDB 789033 D02 v02r01 (Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E), KDB 905462 D02 v02 (UNII DFS Compliance Procedures**),** and ANSI C63.10-2013 were followed for measurement procedures and methods.

Per KDB 388624 D02 (v1603) Section II.B.1, U-NII devices with Dynamic Frequency Selection (DFS) capability (Part 15 Subpart E) are in the list of the devices for which a sample may be requested by the Commission, which reserves the right to waive sample submittal at its discretion, to be submitted to the FCC for pre-approval testing prior to approval by a TCB.

The data of the subject equipment are summarized below.

FCC ID:	2AD8UFW2RMBOM1
Manufacturer	Nokia Solutions and Network Oy
Subject Equipment	FW2RMBOM1
Equipment Type	Transceiver
FCC Rules:	Part 15 Subpart E Section 15.407 – UNII Devices
Frequency Band:	E-UTRAN Band 46b/c, 5250-5325MHz & 5470-5725 MHz (UNII-2)
Conducted Output Power:	99mW to 125mW
Maximum EIRP Power:	26.98dBm (499mW)
Operation Mode:	Master Device, Point to Multipoint
Carriers:	One 20MHz Carrier
Changes:	New Band

Enclosed in this application package are FCC 731 Form, a letter of Request for Confidentiality, the test reports (RF test report and DFS test report) and other required exhibits specific to this application. Those documents and responses submitted to the ISED in the previous certification application under 2AD8UFW2RMBOM1, including RF exposure MPE report, which are still valid for this application, are not being resubmitted. The maximum EIRP power of the subject equipment in the Band 46b/c (UNII-2) is less than that in the Band 46d (UNII-3). Therefore, there is no change in the minimum safety distance.

The measurement exhibits attached to this application demonstrate full compliance with FCC Part 15.407 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. The contacts at Nokia will comply with any request for additional information should the need arise.

Sincerely,

Terry Schwenk

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