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FCC Authorized
Telecommunication Certification Body (TCB)
849 N.W. State Road 45
P.O. Box 370
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July 6, 2022

Subject: Application for C2PC Equipment Authorization under FCC ID: 2AD8UAWEWAB01 for Nokia

AWEWA/B Airscale mmWave Radio 5G n260 39 GHz 192AE Concurrent with FA3UB Extension

Module 5G n258 24GHz 192AE, Operating in the Bands n260 and n258

## Dear Examiner:

The Nokia AWEWA/B Airscale mmWave Radio 5G n260 39 GHz 192AE is part of Nokia ASMR family of products supporting 5G New Radio technology. This system is composed of a base unit and up to two extension modules. The Radio Base Unit, an AWEWA (AC version) or an AWEWB (DC version) can be paired with the FA3WA (39 GHz 192AE) or FA3UB (24GHz 192AE) extension modules.

The AWEWA/B Airscale mmWave Radio 5G n260 39 GHz base unit has been certified under FCC ID: 2AD8UAWEWAB01 with option of pairing with FA3WA 39GHz extension modules for up to 360 deg coverage. The FA3UB 24GHz Extension Module has been individually certified under FCC ID: 2AD8UAFA3UB01. This application is for Class II permissive change (C2PC) authorizing the operation of the AWEWA/B base units (39GHz) paired with FA3UB (24GHz) extension module for concurrent operation, where these two transmitters operate at maximum power within their approved band and may be transmitting **in the same sector**.

The AWEWA/B transceiver modules implement two individually polarized 8x12 arrays with a total power output capability of 52 dBm EIRP per polarization and a total combined power of 55 dBm EIRP in n260, Upper Microwave Flexible Use Service spectrum (37 – 40 GHz) under 47CFR Part 30. It can be configured to provide one to eight 100MHz carriers. The total RF power of AWEWA/B will be equally divided among the carriers.

The FA3UB extension module implements two individually polarized 8x12 arrays with a total power output capability of 52 dBm EIRP per polarization and a total combined power of 55 dBm EIRP in n258, Upper Microwave Flexible Use Service spectrum (24.25-25.25 GHz) under 47CFR Part 30. It can be configured to provide one to seven 100MHz carriers in n258, where one or two carriers in 24.25-24.45GHz and one to five carriers in the 24.75-25.25 GHz. The total RF power of FA3UB will be equally divided among the carriers.

The measurement and RF exposure exhibits attached to this application demonstrate full compliance with FCC Part 30 following the procedural requirements specified in FCC Part 2 Subpart J – Equipment Authorization Procedures.

The data are summarized below:

FCC ID of Main Unit AWEWA/B: 2AD8UAWEWAB01

Rules Part Number: Part 30

Frequency Range: Transmit/ Receive: 37- 40 GHz

Output Power: 52 dBm EIRP per polarization and 55 dBm EIRP Total per unit

Carriers: 1~8 Carriers



FCC ID of Extension FA3UB: 2AD8UAFA3UB01

Rules Part Number: Part 30

Frequency Range: Transmit/ Receive: 24.25 - 25.25 GHz

Output Power: 52 dBm EIRP per polarization and 55 dBm EIRP Total per unit

Carriers: 1~7 carriers

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 AWEWA/B Airscale mmWave Radio 5G n260 39 GHz Radio Unit paring with FA3UB 24 GHz Extension Unit.

Both 2AD8UAWEWAB01 AWEWA/B and 2AD8UAFA3UB01 were approved under PAGs previously. Both devices are electrically identical to the devices previously approved under a PAG and there are no changes. The test procedures and evaluation conditions are consistent with that approved previously under PAG.

Per KDB 388624 D01 Pre-Approval Guidance, it is not necessary for manufacturers to file PAG requests for permissive changes on devices previously processed under the pre-approval process if the earlier guidance remains fully applicable; however, the TCB must re-open by replying in the original PAG KDB to request FCC review of the subsequent permissive change application and enable it to be granted.

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.

Should there be any questions or procedural issues please feel free to contact me by email and/or phone.

Sincerely,

Raymond J. Johnson

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## **Cover Letter**

## Required Exhibits\*:

EXHIBIT	FCC RULES	CONTENTS
Exhibit 1	Section 2.1033(a)	TCB Application Form 731
Exhibit 2	Sections 2.911 (d)(1, 2) & 2.911 (e)	Certifications and Qualification
Exhibit 3	Sections 2.1033 (c)(14), 2.911 (e)	Test Report
Exhibit 4	Sections 1.1307 & 1.1310	RF Exposure Assessment
Exhibit 5	Section 2.1033 (c)(21)	Setup Drawings or Photographs

<sup>\*</sup>The information in the exhibits submitted in the original filings under FCC ID 2AD8UAWEWAB01 and FCC ID 2AD8UAFA3UB01 about Manufacturer, Applicant and Identifier, Descriptions of Operation, Block Diagrams, Schematics, Photos and Product Label are still valid and will not be resubmitted here.