

Federal Communications Commission Office of Engineering and Technology Equipment Authorization Division Application Processing Branch

7435 Oakland Mills Road Columbia, MD 21046 Global Product Compliance Laboratory MH 5A-115, Alcatel-Lucent 600, Mountain Avenue Murray Hill, NJ 07974-0636

September 24, 2012

Dear Examiner:

In accordance with **Parts 2, 27 and OET Rules 662911 D01 and D02** 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 Product Certification of the Alcatel-Lucent "LTE **RRH2X40-07L-AT**", henceforth '**RRH'**, **FCC ID: AS5BBTRX-06**. The RRH is radio, amplifier and filter combination cabinet systems uses the 3GPP standards Long time Evolution (LTE) technology, for use in Domestic Miscellaneous Wireless Communication Services (WCS).

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This application for the RRH under FCC ID: AS5BBTRX-06, is for operation in the domestic WCS band with a LTE signal. The data summarized below is in the form presently used by the Commission's Radio Equipment List.

Manufacturer	Alcatel-Lucent
Equipment Identification	AS5BBTRX-06
Rules Part Number	27.5(c) (1) and FCC OET Rules 662911 D01 and D02
Frequency Range	729 to 745 MHz (A, B, and C Blocks)
Output Power	+3 dBm (.002W) to +46dBm (40W) Varied by Software
Frequency Tolerance	+/- 0.001 ppm
Emission Designator	9M37F9W for 10 MHz Bands and 4M68F9W for 5 MHz Bands

The RRH, under FCC ID: AS5BBTRX-06 is designed to be operated and marketed as RF cabinet system. Each of the RRH contains two identical Transceiver paths and ports. Each transceiver ports outputs 40W maximum of at the External antenna connector (EAC) port. The RRH will be typically operated in Multiple and input and Multiple output (MIMO) mode using 2 x2 antennas. Each Transceiver path is supported by its own RF path filter. The RRH were evaluated total of two transceiver ports. During all antenna port conducted emissions, the transceiver ports were randomly selected for each of the tests. The RRH will be marketed in indoor/outdoor cabinets.

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The RRH is designed operate at large number of sub-carriers which are modulated with QPSK, 16QAM, and 64QAM formats. The RRH was evaluated and data is provided for all three modulation formats.

- (a) QPSK
- (b) 16QAM
- (c) 64QAM

The actual power level delivered by the **RRH** to transmit antenna is under the software control of the Mobile Switching Center of the local Cellular system.

The RRH /AS5BBTRX-06 is designed and manufactured by Alcatel-Lucent.

List of exhibits attached with this submission is indicated in the following page of this cover letter.

The attached exhibits contain the technical data, and the required statements and documents for Product Certification. The technical contact at Alcatel-Lucent will comply with any request for additional information should the need arise.

Sincerely,

D. Moongilan

Dheena Moongilan Distinguished Member of Technical Staff Global Product Compliance Laboratory phone: (908) 582 5539 email: moongilan@alcatel-lucent.com Section 2.911 (d)

Section 2.1033 (c) (1,2)

Section 2.1033 (c) (4-7)

Section 2.1033 (c) (3)

Section 2.1033 (c) (9)

Section 2.1033 (c) (13)

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List of Exhibits

COVER LETTER Cover Letter Product Configuration – Explained in test reports Letter for Confidential Treatment of Exhibits

ATTESTATION STATEMENT Qualifications and Certifications Manufacturers, FCC Identification Emissions, Frequency Range, Power Level

USERS MANUAL Users Manual

PARTS LIST/TUNE-UP PROCEDURE Tune-Up Procedure OPERATIONAL DESCRIPTION Description of Modulation System

SCHEMATICS Schematic Block Diagrams

Section 2.1043 (b) (2)

Section 2.1033 (c) (10)

Section 2.1033 (c) (11) and 2.925 (a) (1) Section 2.1033 (c) (12)

Section 2.1033 (c) (12)

Section 2.1033 (c) (8) Section 2.1033 (c) (14) Section 2.1046 Section 2.1047 Section 2.1049 and Section 24.238 (b) and 27.58 (g) Section 2.1051 Section 2.1053 Section 2.1055 Section 2.1057

Section 24.51 (c)

ID LABEL/LOCATION INFORMATION

EXTERNAL PHOTOS

INTERNAL PHOTOS Internal Photos TEST REPORT Measurement of DC Power Listing of Required Measurements Measurement of Radio Frequency Power Output Measurement of Modulation Characteristics Measurement of Occupied Bandwidth

Measurement of Spurious Emissions at Antenna Field Strength of Spurious Radiation Measurement of Frequency Stability Frequency Spectrum to be Investigated Test Instruments Used for Test – See Test Reports

RF Exposure Information Human Exposure – Not performed