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

October 16, 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 "Light Radio-9768 Metro Radio Outdoor", henceforth '**Light Radio'**, **FCC ID: AS5BBTRX-07**. The Light Radio 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).

This application for the LIGHT RADIO under FCC ID: AS5BBTRX-07 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-07**
Rules Part Number	**27.5(c), OET Rules 662911 D01 and D02, and 1.1310 Table 1(B)**
Frequency Range	**746 to 756 MHz**
Output Power	**0dBm (0.001W) to +30dBm (1W) Varied by Software**
Radiated power	**5dBm (0.0032W) to 35dBm (3.2W) EIRP Varied by Software**
Antenna	**5dBi (Integrated into the RF filter)**
Frequency Tolerance	**+/- 0.001 ppm**
Emission Designator	**9M40F9W for 10 MHz Bands and 4M73F9W for 5 MHz Bands**

The LIGHT RADIO, under FCC ID: AS5BBTRX-07 is designed to be operated and marketed as RF cabinet and permanently attached antenna system. Each of the LIGHT RADIO contains two identical Transceiver paths and ports. Each transceiver ports outputs 1W maximum of at the antenna connector which is integrated into the filter. The LIGHT RADIO will be typically operated in Multiple and input and Multiple output (MIMO) mode using 2x2 antennas. Each Transceiver path is supported by its own RF path filter. The LIGHT RADIO was evaluated total of two transceiver ports. During all antenna port conducted emissions, the transceiver ports were randomly selected for each of the tests. The LIGHT RADIO will be

marketed as outdoor cabinets. Light Radio uses RF filters manufactured by two vendors. The test data is included for both RF filters.

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

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

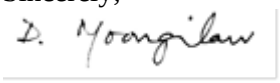
The actual power level delivered by the **LIGHT RADIO** to transmit antenna is under the software control in coordination with Mobile transceiver power requirement.

The **LIGHT RADIO /AS5BBTRX-07** 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,



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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
Section 2.911 (d)	**Qualifications and Certifications**
Section 2.1033 (c) (1,2)	**Manufacturers, FCC Identification**
Section 2.1033 (c) (4-7)	**Emissions, Frequency Range, Power Level**
	USERS MANUAL
Section 2.1033 (c) (3)	**Users Manual**
Section 2.1033 (c) (9)	**PARTS LIST/TUNE-UP PROCEDURE**
	Tune-Up Procedure
Section 2.1033 (c) (13)	**OPERATIONAL DESCRIPTION**
	Description of Modulation System
Section 2.1033 (c) (10)	**SCHEMATICS**
	Schematic
Section 2.1043 (b) (2)	**Block Diagrams**
Section 2.1033 (c) (11) and 2.925 (a) (1)	**ID LABEL/LOCATION INFORMATION**
Section 2.1033 (c) (12)	**EXTERNAL PHOTOS**
	INTERNAL PHOTOS
Section 2.1033 (c) (12)	**Internal Photos**
	TEST REPORT
Section 2.1033 (c) (8)	**Measurement of DC Power**
Section 2.1033 (c) (14)	**Listing of Required Measurements**
Section 2.1046	**Measurement of Radio Frequency Power Output**
Section 2.1047	**Measurement of Modulation Characteristics**
Section 2.1049 and Section 24.238 (b) and 27.58 (g)	**Measurement of Occupied Bandwidth**
Section 2.1051	**Measurement of Spurious Emissions at Antenna**
Section 2.1053	**Field Strength of Spurious Radiation**
Section 2.1055	**Measurement of Frequency Stability**
Section 2.1057	**Frequency Spectrum to be Investigated**
	Test Instruments Used for Test – See Test Reports
	RF Exposure Information
Section 27.52 and 1.13107 Table 1(B)	**Human Exposure**