

### 3. Exhibit 3 FCC REQUIRED INFORMATION

The following information is presented in the content and format requested by the FCC:

**Section 2.1033 (c)(1):**

The full name and mailing address of the manufacturer of the device and the applicant for certification.

Manufacturer: **Alcatel-Lucent USA Inc.**  
**Building 5A-127**  
**600-700 Mountain Avenue, P.O. Box 636**  
**New Providence, 07974-0636**  
**Attention: Raymond J. Johnson**

Applicant: **Alcatel-Lucent USA Inc.**  
**Building 5A-127**  
**600-700 Mountain Avenue, P.O. Box 636**  
**New Providence, 07974-0636**  
**Attention: Raymond J. Johnson**  
Phone: 908-582-5575  
email: [ray.johnson@alcatel-lucent.com](mailto:ray.johnson@alcatel-lucent.com)

Alcatel-Lucent USA Inc., part of the Nokia family of companies, will be the manufacturer of this product. The **AS5BBTRX-28** will only be marketed under the Alcatel-Lucent or Nokia trademark.

**Section 2.1033(c)(2): FCC Identifier: AS5BBTRX-28**

**Section 2.1033(c)(4): Type or types of emission: 5M00F9W, 10M0F9W, 15M0F9W and 20M0F9W**

This Transceiver System supports multiple LTE and other technologies. The subject of this certification request is for operation using the Long Term Evolution modulation format (LTE) for multiple LTE carriers. The transceiver can be configured for the various transmit configurations by varying the digital information provided from the baseband channel electronics alone without physical, hardware or circuit changes to the transceiver.

**Section 2.1033(c)(5): Frequency range, Transmit: 2110-2155 MHz AWS Blocks A-B-C-D-E & F**

**Section 2.1033(c)(6):** Range of operating power values or specific operating power levels, and description of any means provided for variation of operating power.

The Alcatel-Lucent's **AWS LTE B66a RRH 4x45 Outdoor Transceiver System FCC ID: AS5BBTRX-28** is capable of producing multiple bandwidth LTE RF carriers at an overall total power of 180W for all four ports. The per port mean power level varies depending upon whether the product is operated in 2xMIMO or 4xMIMO mode of operation and upon the mix of emissions designators for multicarrier operation. The nominal transmit output power for each Tx path is translation settable over a range of 16 dB. The transmit power per port will range from:

From 1.13 W up to 45 W maximum (+46.53 dBm) at each of its four antenna transmit terminals.

or

From 2.26 W up to 90W maximum (+49.54 dBm) at each of two of its antenna transmit terminals.

The carrier output power level of the **AWS LTE RRH 4x45 Band 66 Outdoor Transceiver System** is adjustable digitally over a 16 dB range. The transmit filters provides RF feedback to the transceivers in the form of CLGC (Closed Loop Gain Control) and Alcatel-Lucent's proprietary Enhanced Digital Pre-Distortion (EDPD) technology to provide constant output power over temperature. The features are controlled by software.

**Exhibit 3 FCC REQUIRED INFORMATION** *continued***Section 2.1033(c)(7):** Maximum power rating as defined in the applicable part (s) of the rules.

The maximum continuous RF output power available at the sum of the antenna transmit terminals is 180 W (+52.55 dBm).

The product can produce a maximum of 90W (+49.52 dBm) at its Tx1 and Tx2 antenna transmit terminals

or.

The product can produce a maximum of 45W (+46.52 dBm) at each of its four antenna transmit terminals.

Individual carriers shall not exceed the following values.

90W maximum for individual 20 MHz or 15 MHz carriers.

60W maximum for individual 10 MHz carriers.

40W maximum for individual 5 MHz carriers.

Carriers can be mixed in any combination up to the individual Carrier limit or Port limit

**Section 2.1033 (c)(10):** A description of all circuitry and devices for determining and stabilizing frequency.

The Alcatel-Lucent's **B66a RRH 4x45, FCC ID: AS5BBTRX-28** is a 70 MHz instantaneous bandwidth digital transceiver designed to operate in the Broadband AWS frequency spectrum. The FPGA to A/D transceiver in this application for initial Product Certification utilizes 5, 10, 15 and 20 MHz carrier emission bandwidth LTE signals which are upconverted to the AWS Band. The frequency stability of the LTE carrier frequency is maintained with an accuracy better than the rated  $\pm 0.05$  ppm by reference frequency locking the phase-locked-loop (PLL) circuitry to a stable internal reference oscillator. External reference timing is provided by locking to an external frequency disciplined reference signals.

The **B66a RRH 4x45** can use either a GPS or other system provided frequency discipline synchronization for reference. As a hardware variant, the **B66a RRH 4x45** can be configured with a GPS connector which can be used to connect an optional external GPS antenna.