11. EXHIBIT 11: DETAILED DESCRIPTION OF THE MODULATION SYSTEM

SECTION 2.1033(c) (13)
For equipment employing digital modulation techniques, a detailed description of the modulation system to be use, including response characteristics of any filters provided, and a description of the modulating wavetrain, shall be submitted for the maximum rated conditions under which the equipment will be operated.

Response:
The **Alcatel-Lucent's AWS LTE RRH 4x45 Band 66 Outdoor Transceiver System FCC ID: AS5BBTRX-28**, is a 70 MHz carrier emission bandwidth base station transceiver designed to transmit in the Broadband AWS frequency band of 2110-21805 MHz. The AWS B66a RRH 4x45 which generates the modulated signal is able to generate LTE carrier emission at various bandwidths *E-UTRA* (LTE), UMTS (W-CDMA) signals. This system of modulation is fully described in the documents below. Modulation and description of the modulation for the functionality for the AWS B66a RRH 4x45 transceiver was developed in accordance to the guidelines of

3GPP TS 36.141 V1.0.0 (2008-05) *3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA) ; Base Station (BS) conformance testing*
3GPP TS 36 104: *"E-UTRA Base Station (BS) radio transmission and reception"*

3GPP TS 36.211 V9.1.0 (2010-03) titled: 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Physical Channels and Modulation (Release 9).

These Standards contains the physical layer of the *Evolved Universal Terrestrial Radio Access (E-UTRA),* for land mobile wireless systems based upon cellular principles.

The subject of this application is for 5, 10, 15 and 20 MHz LTE carrier, emission designators.