

## EXHIBIT 10: 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 PCS LTE 9764 Metro Cell Outdoor Transceiver System FCC ID: AS5BBTRX-12**, is a 20 MHz carrier emission bandwidth base station transceiver designed to transmit in the Broadband PCS frequency band of 1930-1995 MHz. The 9764 MCO 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 9764 MCO 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 only the 5 MHz LTE carrier, emission designator 5M00F9W.