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 UMTS Flexent™ OneBTS™ PCS UMTS-CDMA Multi-Carrier Radio (MCR1900), BNJ64, previously authorized under FCC ID: **AS5ONEBTS-09 and AS5ONEBTS-10**, is a 15 MHz emission bandwidth base station transceiver designed to operate in the Broadband PCS frequency band 1930-1995 MHz. The MCR1900 which generates the modulated signal is able to generate either 5 MHz carrier emission bandwidth UMTS (W-CDMA) signals or 1.25 MHz carrier emission bandwidth CDMA signals. This system and circuitry was fully described in the original filings for the MCR1900 authorized under FCC ID: **AS5ONEBTS-09** granted 22 February 2005 for all PCS Blocks and has not changed.

EDPD functionality for the MCR-1900 transceiver was developed in accordance to the guidelines of 3GPP2.S0002-*A, Physical Layer Standard for cdma2000 Spread Spectrum Systems*, 3GPP2.C.S0024 - *cdma2000 High Rate Packet Data Air Interface Specification and* 3GPP2 TSG-C.S0032-1-*Recommended Minimum Performance Standards for CDMA2000 High Rate Packet Data Access Network* . These Standards contains the physical layer of the IMT-2000, CDMA Multi-Carrier Mode, IMT-2000 CDMA MC, for land mobile wireless systems based upon cellular principles. The Standards is a revision of the Telecommunications Industry Association Standard TIA/EIA/IS-2000.2, *Physical Layer Standard for cdma2000 Spread Spectrum Systems.* This Standards includes the capabilities of Telecommunications Industry Association Standard TIA/EIA-95-B and TIA/EIA/IS-856.

(This data above has not changed from the original filing.)

Additional Capacity Operation
Response:
The **Alcatel-Lucent's PCS LTE 9288 Macro Transceiver System FCC ID: AS5ONEBTS-10**, is a 15 MHz carrier emission bandwidth base station transceiver designed to transmit in the Broadband PCS frequency band of 1930-1995 MHz. The MCR-1900 which generates the modulated signal is able to generate LTE carrier emission at various bandwidths *E-UTRA* (LTE), UMTS (W-CDMA) signals. The system of modulation and functionality for the 9228 Macro utilizing the MCR-1900 Radio was developed in accordance to the guidelines of the pertinent standards documents identified below.

The modulation is Orthogonal Frequency Division Multiple Access (OFDMA) which is processed into an uplink IF signal. The input data stream is divided into several parallel sub-streams of reduced data rate and each sub-stream is transmitted on a separate orthogonal sub-carrier. The sub-carriers are modulated using either QPSK, 16QAM or 64QAM. There is no single measure of the modulation quality other than to verify that the subcarrier modulation constellations visual orientation match the symbol and amplitude criteria is consistent with QPSK, 16QAM and 64QAM. However, while performing and recording the Modulation characteristics it is advantageous to record the transmit signals Peak to Average Ratio (PAR) using the complementary cumulative distribution function (CCDF). Measurement of each signal evaluated for RF Power and Occupied Bandwidth was evaluated for Modulation and CCDF/PAR.

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"*

(This is new data and is a change from prior filings)

Additional capacity *continued.*

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 the 3MHz LTE carrier, 3M00F9W emission designator and the 5 MHz LTE carrier, emission designator 5M00F9W.

(This is new data and is a change from prior filings)