

**EXHIBIT 3: FCC REQUIRED INFORMATION (PART 2.1033)**

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:** **Lucent Technologies**  
6200 E Broad St  
Columbus, OH 43213-1569 U S

**Applicant:** **Lucent Technologies**  
101 Crawfords Corner Road, Holmdel, NJ 07733  
Attention: Theresa I. Deaver

**Section 2.1033(c)(2):** FCC Identifier AS5ONEBTS-11

**Section 2.1033(c)(4):**  
Type or types of emission: 4M10F9W

**Section 2.1033(c)(5):** Frequency range Transmit: 869–894 MHz

**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.

Lucent Technologies' UMTS-CDMA Transceiver System (850), which is incorporated into the UMTS Flexent® OneBTS™ 850 MHz wireless base station, is the subject of this application for authorization by the Federal Communications Commission under the new FCC ID: AS5ONEBTS-11. The UMTS850 Transceiver System consists of the principle RF components: (1) Crystal Reference Oscillator Module (OMA) at 15 MHz, (2) UMTS-CDMA Multi-Carrier CDMA Radio (MCR850), Model BNJ65, which was previously authorized by the Federal Communications Commission under FCC ID: AS5ONEBTS-08, (3) P2PAM power amplifier, and (4) 25 MHz bandwidth Dual Duplex (DDpx) transmit filter covering the cellular frequency spectrum 869 – 894 MHz. These components are considered as a system due to the DDpx filters providing RF feedback to the transceiver in the form of Closed Loop Gain Control (CLGC) to provide constant power with over temperature and Lucent's proprietary Enhanced Digital Pre-Distortion (EDPD-UL) technology which enables software to communicate between the transceiver, power amplifier and the transmit filter to achieve this goal.

This UMTS850 Transceiver System is designed to operate in Lucent Flexent™ OneBTS™ UMTS/CDMA 850 MHz wireless base station. The MCR850 can operate for both multi-carrier CDMA and single carrier UMTS technologies; the subject of this request for certification is operation in the Universal Mobile Telecommunications System (UMTS) for a single 5 MHz emission bandwidth UMTS carrier (4M10F9W). The UMTS feature was developed for the North America Region (NAR) deployment, and is also known as Wideband CDMA (W-CDMA). The transceiver can be converted from CDMA to UMTS (or UMTS to CDMA) by software alone, which can be performed at the installation site. There are no physical, hardware or circuit changes to the transceiver. The subject of this application is UMTS.

**EXHIBIT 3: FCC REQUIRED INFORMATION (PART 2.1033) - continued**

The maximum rated output power at the antenna terminal of 40 Watts (+46 dBm), 3-second average, per 5 MHz emission bandwidth carrier. Power adjustment is software controlled, using a digital signal to set and adjust voltage variable attenuators in the MCR850 transceiver. The range of attenuation control is 0 - 18 dB maximum, with a resolution of 0.05 dB.

**Section 2.1033(c)(7):**

Maximum power rating as defined in the applicable part (s) of the rules.

The maximum power rating of the Lucent UMTS Flexent™ OneBTS™ 850 MHz wireless base station, UMTS-CDMA Transceiver System (850) has a maximum rated output power at the base station transmit antenna terminal of 40 Watts (+46 dBm), 3-second average, corresponding to a single 5 MHz emission bandwidth UMTS carrier with QPSK modulation.

**Section 2.1033 (c)(8):**

The dc voltages applied to and the dc currents into the several elements of the final radio frequency amplifying device for normal operation over the power range.

The dc voltage applied to the UMTS Flexent™ OneBTS™ 850 MHz wireless base station equipment frame is nominally +24 Vdc; the equipment is rated to operate over the range +19-30 Vdc with a typical setting of +26.5 Vdc and a maximum input current of 75 Adc.

The nominal dc voltage and range of dc currents input to a single UMTS 850 MHz Power Amplifier, C2PAM, of the UMTS-CDMA Transceiver System (850) is summarized as follows:

<b>Single C2PAM Power Amplifier</b>		
<b>Input Voltage</b>	<b>Maximum Input Current: No RF Power</b>	<b>Maximum Input Current: At Rated RF Power</b>
+19.0 Vdc	11.14 Adc	27.1 Adc
+30.0 Vdc	7.11 Adc	16.89 Adc

**Section 2.1033 (c)(8):**

Tune-up procedure over the power range, or at specific operating power levels.

The Lucent UMTS Flexent™ OneBTS™ 850 MHz wireless base station, UMTS-CDMA Transceiver System (850), subject of this request for certification under FCC ID: AS5ONEBTS-11, can not be “tuned-up” by the user. There are no user tune-up features. All tuning is performed by the manufacturer during, and as part of, the manufacturing process.

**Section 2.1033 (c)(10)**

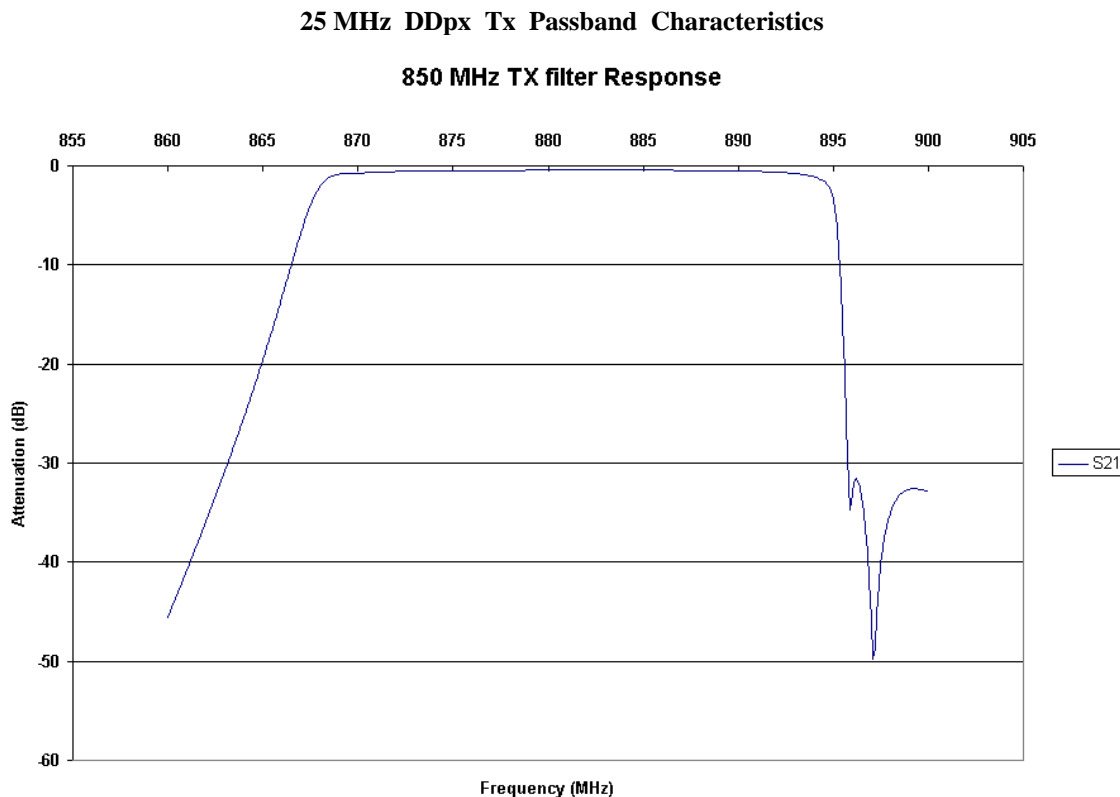
A description of all circuitry and devices for determining and stabilizing frequency.

The Lucent UMTS/W-CDMA Flexent™ OneBTS™ 850 MHz wireless base station, incorporating the UMTS-CDMA Transceiver System (850), which utilizes a 5 MHz carrier emission bandwidth, is designed to operate in the cellular frequency spectrum 869-894 MHz. Frequency stability of the carrier frequency is achieved with an accuracy better than the rated  $\pm 0.05$  ppm by the 15 MHz reference frequency generated by a stable Crystal Oscillator Module (OMA) plus proprietary phase locked loop (PLL) circuitry.

**EXHIBIT 3: FCC REQUIRED INFORMATION (PART 2.1033) - continued****Section 2.1033 (c)(10): Description of circuitry and devices for suppression of spurious radiation.**

Spurious emissions radiated from the UMTS Flexent™ OneBTS™ 850 MHz wireless base station equipment frame are suppressed by implementing sound Electromagnetic Compatibility (EMC) design practices extending from the circuit board level to the system level: 1) grounded RF shielding on coaxial cables, 2) grounded RF shielding “cans” mounted on the circuit packs, 3) effective grounding throughout, and 4) effective transmit and receive bandpass filters for the cellular frequency band 869-894 MHz. The Tx filter, incorporated in this UMTS-CDMA Transceiver System (850), is a 25 MHz wideband, low loss, Dual Duplex (DDpx) design covering the full 869-894 MHz spectrum.

Characteristic Plot of the 25 MHz wideband, low loss, Dual Duplex (DDpx) filter showing the transmit passband characteristics is:



**EXHIBIT 3: FCC REQUIRED INFORMATION (PART 2.1033) - continued****Section 2.1033 (c)(10): Description of Circuitry and Devices for Limiting Modulation, and for Limiting Power.**

The Lucent UMTS Flexent™ OneBTS™ 850 MHz UMTS-CDMA Multi-Carrier CDMA Radio (MCR850), BNJ65, previously authorized under FCC ID: AS5ONEBTS-08, is a 5 MHz carrier emission bandwidth UMTS (W-CDMA) base station transceiver designed to operate in the Cellular Frequency Band 869-894 MHz. It is the transceiver which comprises this UMTS-CDMA Transceiver System (850), that is the subject of this application for certification. Modulation limiting is described in the documents that must be held as confidential. This confidential document is the same document that was submitted to and is currently on file with the Federal Communications Commission for the initial equipment authorization grant for AS5ONEBTS-08.

Power control of the RF output from the MCR850 transceiver is accomplished by software which controls a microprocessor that sends digital signals to a 18 dB voltage variable attenuator, which is used for output power adjustment. The transmitter can be disabled through firmware which sets the RF attenuator to maximum loss and thus disables the final RF amplifier stage. A complete description is provided in the exhibits that are required to be held as confidential. This confidential document is the same document that was submitted to and is currently on file with the Federal Communications Commission (FCC) for the initial equipment authorization grant for AS5ONEBTS-08.

**Section 2.1033 (c)(13): Description of the modulation system.**

The Lucent UMTS Flexent™ OneBTS™ 850 MHz UMTS-CDMA Multi-Carrier CDMA Radio (MCR850), BNJ65, previously authorized under FCC ID: AS5ONEBTS-08, is a 5 MHz carrier emission bandwidth UMTS (W-CDMA) base station transceiver designed to operate in the Cellular Frequency Band 869-894 MHz. It is the transceiver which comprises this UMTS-CDMA Transceiver System (850), that is the subject of this application for certification.

This 5 MHz carrier emission bandwidth UMTS (W-CDMA) base station transceiver is designed for QPSK modulation, with an emission designator 4M10F9W. The modulation process is fully described in the documents that must be held as confidential. This confidential document is the same document that was submitted to and is currently on file with the Federal Communications Commission (FCC) for the initial equipment authorization grant for AS5ONEBTS-08.

The MCR850 transceiver can operate either with only Voice and 20 active channels or with Voice + HSDPA to provide 24 active channels. Note: HSDPA = High Speed Downlink Packet Access.