

EXHIBIT 3: FCC REQUIRED INFORMATION (PART 2.1033)

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

Section 2.911 (d) Qualification Of Engineers

Section 2.911 (d): Technical test data shall be signed by the person who performs or supervises the tests. The person signing the test data shall attest to the accuracy of such data. The Commission may require such person to submit a statement showing that he is qualified to make or supervise the required measurements.

Michael P. Farina is a Member of Technical Staff at Alcatel-Lucent USA, Inc., Whippany, NJ, formerly AT&T Bell Laboratories, with 48 years of Professional Experience in Research and Development. He holds a BS in Physics from Upsala College and an MSEE from New Jersey Institute of Technology. During the past 16 years, his expertise was focused on RF Engineering and Regulatory Agency EMC compliance and certification, covering Analog, TDM, CDMA and UMTS technologies. He has submitted numerous Applications for Certification filings to the FCC covering many product variations and evolutions in each of the four technologies. Currently, he is the Lead Engineer for filing UMTS Wireless Base Station products with the FCC.

Rudolf J. Pillmeier
Technical Manager
FCC/EMC Compliance Test Group
Whippany, New Jersey

Section 2.911 (e)(g) Certification of Technical Test Data

Section 2.911 (e) The signatures of the applicant and the person certifying the test data shall be made personally by those persons on the original application; copies of such document may be conformed. Signatures and certifications need not be made under oath.

Section 2.911 (g) Signed, as used in this section, means an original handwritten signature; however, the Office of Engineering and Technology may allow signature by any symbol executed or adopted by the applicant with the intent that such symbol be a signature, including symbols formed by computer-generated electronic impulses.

I hereby certify that the technical test data are the results of tests either performed or supervised by me.

Michael P. Farina
Member of Technical Staff
FCC/EMC Compliance Test Group
Whippany, New Jersey

Section 2.1033 (c)(1):

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

**Alcatel-Lucent USA, Inc.
600-700 Mountain Ave
Murray Hill, NJ 07974**

Section 2.1033(c)(2): FCC Identifier **AS5ONEBTS-22**

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

Section 2.1033(c)(5): Frequency range **Transmit: 1930–1990 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.

Alcatel-Lucent's wireless UMTS **9341 RRH 60W 1900MHz** base station transceiver system, is the subject of this application for Class II Permissive Change authorization by the Federal Communications Commission under FCC ID: AS5ONEBTS-22. This Universal Mobile Telecommunications System (UMTS) is designed to operate in the North America Region (NAR) Broadband PCS Frequency Spectrum 1930-1990 MHz, with bandwidth of 60 MHz over the A, D, B, E, F and C Frequency Blocks. The **9341 RRH 60W 1900MHz** system can be software configured for:

1. Single carrier at 60W (+47.78 dBm) power for 1S1C operation.
2. Two adjacent carriers at 30W (+44.77dBm) per carrier and 60W total composite power for 1S2C operation
3. Two carriers separated by one carrier bandwidth in a 101 configuration at 30W (+44.77dBm) per carrier and 60W total composite power for 1S2C operation
4. Three adjacent carriers at 20W (+43.01dBm) per carrier and 60W total composite power for 1S3C operation.

The RF power rating is based the 3-second average, employing the Aggregate Overload Control (AOC) algorithm. Enhanced Digital Pre-Distortion (EDPD) and Closed Loop Gain Control (CLGC) are features that are enabled for each carrier. The carrier power level and frequency are remotely controlled by software. The single UMTS carrier has a 5 MHz bandwidth, with an emission designator at 4M10F9W, based on measurement of the Necessary Bandwidth. The UMTS product is designed for compliance with, and as a guideline, the ETSI 3GPP TS 25.141 Technical Specification Standard. TS 25.141 test modulation (TM) capability demonstrated includes 1) TM1-16 with up to 20 active channels, consisting of 16 voice + 4 control, 2) TM1-64 with up to 68 active channels, consisting of 64 voice + 4 control, and 3) TM5-44 with up to 44 active channels, which include 8 High Speed Downlink Packet Access (HSDPA) channels.

The UMTS **9341 RRH 60W 1900MHz** base station transceiver system, subject of this certification, is comprised of two separate modules interconnected by fiber optic cable: 1) the digital Base Band Unit (BBU), and 2) the Remote Radio Head (RRH). They have the flexibility of being installed either in close proximity to (i.e., co-located) or remotely located from each other. The BBU has the capability of controlling up to 3 remotely located RRH units, via fiber optic cable, and incorporates the digital channel cards, reference oscillator module, T1/E1 and alarm interface, and the RF-to-Optical and Optical-to-RF conversion circuitry. The 60W 1900 MHz RRH incorporates the Future Technology Radio (FTR1900), power amplifier (PA) and passive filter with single transmit (Tx) and diversity receive functionality (Rx0, Rx1). This system complies both with the Federal Communication Commission (FCC) Rules and Regulations (47 CFR Part 24), and with the European Telecommunications Standards Institute (ETSI) 3rd Generation Partnership Project (3GPP) Technical Specifications TS 25.104 and TS 25.141.

The maximum rated output power at the antenna terminal is 60 Watts (+47.78 dBm), 3-second average, per 5 MHz carrier emission bandwidth. Power adjustment is software controlled, using baseband digital scaling to set and adjust voltage variable attenuators in the transceiver. A full discussion of the power control and adjustment is contained in the documents requested to be held confidential.

EXHIBIT 3: FCC REQUIRED INFORMATION (PART 2.1033) - continued**Section 2.1033(c)(7):**

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

The maximum power rating of Alcatel-Lucent's wireless UMTS **9341 RRH 60W 1900MHz** base station transceiver system at the transmit antenna terminal, is 60 Watts (+47.78 dBm), 3-second average, employing the Aggregate Overload Control (AOC) algorithm.

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 Alcatel-Lucent's wireless UMTS **9341 RRH 60W 850MHz** Remote Radio Head (RRH) is nominally -48 Vdc. The final radio frequency amplifying device is the power amplifier (PA) incorporated into the RF Remote Radio Head (RRH) module. The operating voltage is currently 31.0 +/-0.5 VDC, although the RRH power supply is variable from 20 to 31V. The maximum current at typical rated output is 9A. With no RF output power, the amplifier draws about 2.5-3.0A. Over all conditions, including up to 1-dB overdrive, the current can be as high as 10A.

Section 2.1033 (c)(9):

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

Alcatel-Lucent's wireless UMTS **9341 RRH 60W 1900MHz** base station transceiver system, subject of this request for certification under FCC ID: AS5ONEBTS-22, 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.

Alcatel-Lucent's wireless UMTS **9341 RRH 60W 1900MHz** base station transceiver system, incorporating the Future Technology Radio (FTR 1900), with a 5 MHz carrier emission bandwidth, is designed to operate in the Broadband PCS frequency spectrum 1930-1990 MHz. The frequency is determined by the up-conversion of digital baseband signals to IF frequencies. Frequency stability of the carrier frequency is achieved with an accuracy better than the rated ± 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 Alcatel-Lucent's wireless UMTS **9341 RRH 60W 1900MHz** base station transceiver system, 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 Broadband PCS frequency band 1930-1990 MHz. The Tx filter, incorporated in the 60W RF Remote Radio Head (RRH), is a 60 MHz wideband, low loss, tuned cavity Duplex (Dpx) design covering the full 1930-1990 MHz spectrum, and suppresses transmitted spurious and harmonic emissions by more than 20 dB below the FCC required limitation.

Section 2.1033 (c)(10): Description of Circuitry and Devices for Limiting Modulation, and for Limiting Power.

The Alcatel-Lucent UMTS 1900 MHz Future Technology Radio (FTR1900) is a 5 MHz carrier emission bandwidth UMTS (W-CDMA) base station transceiver, designed to operate in the Broadband PCS Frequency Band 1930-1990 MHz. The FTR1900 transceiver is incorporated into the UMTS 60W 1900 MHz RF Remote Radio Head, which is the subject of this application for Class II Permissive Change certification. Modulation limiting is described in the documents that must be held confidential.

Power control of the RF output from the FTR1900 transceiver is accomplished by software which controls a microprocessor that sends digital baseband signals to a 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.

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

The Alcatel-Lucent UMTS 1900 MHz Future Technology Radio (FTR1900) is a 5 MHz carrier emission bandwidth UMTS (W-CDMA) base station transceiver designed to operate in the Broadband PCS Frequency Band 1930-1990 MHz. The modulation system is described in the documents that must be held confidential.

This FTR1900 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 confidential. The FTR1900 transceiver can transmit Voice, Data or HSDPA (High Speed Downlink Packet Access) modulated information.