



Subject: **Application for Class II Permissive Change,
under FCC ID: AS5ONEBTS-10, Covering the
UMTS-CDMA Transceiver System (1900)
Operating in the Broadband PCS Spectrum.**

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March 23, 2010

Mr. Sid Sanders, President
Timco Engineering, Inc.
849 N. W. State Road 45, P. O. Box 370
Newberry, Florida 32669

Dear Mr. Sanders:

The original FCC Grant of Equipment Authorization for the Alcatel-Lucent Broadband PCS **UMTS-CDMA Transceiver System (1900)** and subsequent Permissive Changes, under FCC ID: AS5ONEBTS-10, have consistently authorized the **UMTS/W-CDMA Transceiver System** to transmit at 40 Watt per carrier for single amplifier configurations and two 40W per carrier signals for dual amplifier configurations. That is the product produces 40 watts for one amplifier and 80 watts for 2 amplifiers in the system. This Class II Permissive Change requests authorization to operate at the same 80 watts, for a two (2) power amplifiers configuration, to be applied to a single carrier. That is to change the authorization to state the power as 40 watts per amplifier. A single amplifier system will remain 40 watts per amplifier and two amplifier configurations will remain 80 watts as measured at the transmit antenna terminal. As previously certified the use of Enhanced Digital Predistortion (EDPD) and Closed Loop Gain Control (CLGC) are features that are part of this system. There are no hardware changes to the system from previous filings.

The MCR1900 (UMTS-CDMA Multi-Carrier CDMA Radio) transceiver, power amplifier (P2PAM) and Reference Frequency Oscillator are unchanged. The frequency determining and stabilization circuitry are unchanged. The necessary bandwidth (NB) remains at 4M10F9W and the frequency tolerance at ± 0.05 ppm, over the Broadband PCS (Part 24, Subpart E) 60MHz frequency spectrum 1930 - 1990 MHz remains unchanged. The host wireless base station equipment frame utilized in this testing was the Node-B UMTS Indoor Macrocell. The parallel P2PAMs are interconnected by appropriate 1:2 power splitters and 2:1 power combiners.

The UMTS1900 Transceiver System consists of the principle RF components: (1) Crystal Reference Oscillator Module (OMA) 15 MHz, (2) UMTS-CDMA Multi-Carrier CDMA Radio MCR1900, Model BNJ64, (3) P2PAM power amplifier, and (4) 60 MHz Dual Duplex (DDpx), low loss, transmit filter covering the PCS spectrum 1930-1990 MHz. These components are considered as a system due to (1) the DDpx filters providing RF feedback to the transceiver in the form of Closed Loop Gain Control (CLGC) to provide constant power over temperature, and (2) Alcatel-Lucent's proprietary Enhanced Digital Pre-Distortion (EDPD-UL) technology. The Wideband CDMA (W-CDMA) transceiver, MCR1900, can operate in either CDMA or UMTS mode depending on the modulation software loaded at the installation site. There are no physical, hardware or circuit changes to the transceiver.

UMTS functionality for the MCR1900 transceiver was developed in accordance to the guidelines of the ETSI TS 25.141 V7.4.0 (2006-06) standard: “Universal Mobile Telecommunications System (UMTS); Base Station Conformance Testing (FDD) (3GPP TS 25.141 version 7.4.0 Release 7)”. The measurement exhibits attached to this application demonstrate full compliance with both FCC Part 24 Subpart E – Broadband PCS and with ETSI TS 25.141, following the procedural requirements specified in FCC Part 2 Subpart J – Equipment Authorization Procedures. The data summarized below is in the form presently used by the Commission’s Radio Equipment List, for Equipment Acceptable for Licensing.

Manufacturer	Alcatel-Lucent USA, Inc.
Equipment Identification	AS5ONEBTS-10
Rules Part Number	Part 24, Subpart E – Broadband PCS
Frequency Ranges	Transmit 1930–1990 MHz
Output Power	40 Watts (+46 dBm) per Power Amplifier (PA) Single Carrier at 40W for 1 Power Amplifier (PA) Single Carrier at 80W for 2 Parallel Power Amplifiers (PA)
Number of Carriers	1 Carrier at 40W per PA, for total combined power 80W for 2 PA in parallel
Frequency Tolerance	± 0.05 ppm
Emission Designator	4M10F9W

Attached are the FCC Form 731 (Application for Equipment Authorization – Radio Frequency Devices) and the required measurement data and exhibits specific to this request for Class II Permissive Change authorization of the UMTS-CDMA Transceiver System (1900) base station. All exhibits and measurements from the initial filing that are unchanged are not repeated. The technical contact at Alcatel-Lucent will comply with any request for additional information should the need arise. The attached exhibits are assembled and presented in the sequence recommended by Timco Engineering, in accordance with the *Table of Contents* attachment.

Since there are no changes to the circuitry in the RF path from the initial filing, all exhibits previously requested to be held confidential remain unchanged and continue to remain confidential. For brevity, the initially submitted exhibits that remain unchanged are not repeated in this Class II Permissive Change request.

We request that the text added to the Class II Equipment Authorization Grant state:

This wireless base station equipment is designed to operate at 40 watt RF power per power amplifier (P2PAM) in the RF path of the **UMTS-CDMA Transceiver System (1900)**. A single carrier transmitted through a single P2PAM will provide 40 Watt RF power at the antenna terminal . A single carrier transmitted through two parallel P2PAM power amplifiers will combine to provide 80 Watt RF power at the antenna terminal.

Sincerely,

Rudolf J. Pillmeier
 Technical Manager
 FCC/EMC Compliance Test Group
 Whippany, NJ 07981

Att.
 Table of Contents for the UMTS-CDMA Transceiver System (1900) Certification Report

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		Exhibit Included
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Cover Letter		YES
Request for Confidentiality		NO
Exhibit 1:	731 Form	YES
Exhibit 2:	FCC ID Label Sample and Location Information	YES
Exhibit 3:	FCC Required Information (Part 2.1033)	YES
Exhibit 4:	External Photographs	YES
Exhibit 5:	Internal Photographs - ALCATEL-LUCENT TECHNOLOGIES CONFIDENTIAL	NO
Exhibit 6:	Test Set Up Photographs	YES
Exhibit 7:	Operational Description (Theory of Operation, Functional Description) - ALCATEL-LUCENT TECHNOLOGIES CONFIDENTIAL	NO
Exhibit 8:	Block Diagrams - ALCATEL-LUCENT TECHNOLOGIES CONFIDENTIAL	NO
Exhibit 9:	Schematic Diagrams - ALCATEL-LUCENT TECHNOLOGIES CONFIDENTIAL	NO
Exhibit 10:	Test Report	YES
Exhibit 11:	UMTS FLEXENT™ OneBTS™ Macrocell – Indoor Maintenance Document ALCATEL-LUCENT TECHNOLOGIES CONFIDENTIAL	NO
Exhibit 12:	Tuning Procedure, if Applicable	NO
Exhibit 13:	Parts List, if Applicable ALCATEL-LUCENT TECHNOLOGIES CONFIDENTIAL	NO