



Subject: **Application for Class II Permissive Change
Authorization under FCC ID: AS5ONEBTS-22,
Covering the UMTS 9341 RRH 60W 1900MHz
System Operating with 3 Adjacent Carriers and
with 2 Carriers Separated by 1 Carrier Bandwidth.**

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June 18, 2009

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

Dear Mr. Sanders:

Alcatel-Lucent's Universal Mobile Telecommunications System (UMTS) **9341 RRH 60W 1900MHz**, operating in the North America Region (NAR) Broadband PCS Frequency Spectrum 1930-1990 MHz, **initially received an FCC Grant of Equipment Authorization effective October 8, 2008**. This Grant covered a single UMTS carrier operation (1S1C) at 60 Watts (+47.78 dBm) and two adjacent carrier (1S2C) operation at 30 Watts (+44.77 dBm) per carrier with a total composite power of 60 Watts. The RF power rating is based the 3-second average, employing the Aggregate Overload Control (AOC) algorithm. Enhanced Digital Predistortion (EDPD) and Closed Loop Gain Control (CLGC) are features that are enabled for each carrier.

This application for a Class II Permissive Change requests FCC authorization (1) to transmit 2 UMTS carriers at 30W per carrier, but separated by a single carrier bandwidth in a 101 configuration with 60W total composite power, and (2) to transmit 3 adjacent carriers at 20W per carrier with a total composite power of 60W. The single UMTS carrier has a 5 MHz bandwidth, with an emission designator at 4M10F9W, based on measurement of the Necessary Bandwidth. There have been no changes made to circuitry in the RF path, and no changes made to the frequency determining and stabilization circuitry. The only modifications were to the software controlling the transceiver.

Alcatel-Lucent requests that the following text be included on the Class II Grant Certificate:

- 1. Single carrier at 60W power.**
- 2. Two adjacent carriers at 30W per carrier and 60W total composite power.**
- 3. Two carriers separated by one carrier bandwidth in a 101 configuration at 30W per carrier and 60W total composite power.**
- 4. Three adjacent carriers at 20W per carrier and 60W total composite power.**

In accordance with Sec. 2.1043 *Changes In Certificated Equipment*, only the characteristics affected by the change need to be reported. As such, the applicable measurements affected are contained in the Test Report Exhibit, and all other Exhibits submitted with the initial filing that remain unchanged will not be repeated for brevity. All initial exhibits that were granted permanent confidentiality are unchanged and continue to remain confidential, and will not be repeated with this submission for brevity.

The 60W Distributed Base Station (DBS) system, subject of this Class II Permissive Change request, 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 (i.e., co-located) to 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 (or T3/E3) and

alarm interface, and the RF-to-Optical and Optical-to-RF conversion circuitry. The 60W 1900 MHz RRH incorporates the Future Technology Radio (FTR), 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.

UMTS functionality 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, Equipment Acceptable for Licensing.

Manufacturer	Alcatel-Lucent
Equipment Identification	AS5ONEBTS-22
Rules Part Number	Part 24, Subpart E – Broadband PCS
Frequency Ranges	Transmit 1930–1990 MHz
Output Power	60 Watts (+47.77 dBm) 3-second average total composite at the Tx antenna terminal
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. The technical contact at Alcatel-Lucent USA, Inc., 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.

In the initial filing, permanent confidentiality was requested and granted for the initial exhibits re-stated below. Alcatel-Lucent hereby requests that they continue to be held permanently confidential. Since none have changed, they will not be re-submitted.

- Exhibit 4B: INTERNAL PHOTOGRAPHS - CONFIDENTIAL**
File Name: 07-IntPhotoConfidential_AS5ONEBTS-22_CONFIDENTIAL.DOC
- Exhibit 6: Operational Description (Theory of Operation, Functional Description)**
File Name: 09-OpDes_AS5ONEBTS-22_CONFIDENTIAL.doc
- Exhibit 8: Schematic Diagrams**
File Name: 11-Schem_AS5ONEBTS-22_CONFIDENTIAL.DOC
- Exhibit 10: UMTS Distributed Base Station (1900 MHz) Operation, Administration and Maintenance Documents**
File Name: 13-UserMan_AS5ONEBTS-22_CONFIDENTIAL.DOC

Sincerely,

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

Att.

Table of Contents for the UMTS 60W 1900 MHz Distributed Base Station System Certification Report

TABLE OF CONTENTS

- 01-Exhibit 1: 731 Form**
File Name: 01-TCB_Form_731_AS5ONEBTS-22.doc
- 02-Cover Letter File Name: 02-Cover_Letter_AS5ONEBTS-22.DOC**
- 03-Request for Confidentiality No Change to this Exhibit - Not Re-Submitted*
- 04-Exhibit 2: FCC ID Label Sample and Location Information**
File Name: 04-Label_AS5ONEBTS-22.DOC
- 05-Exhibit 3: FCC Required Information (Part 2.1033)**
File Name: 05-ReqInfo_AS5ONEBTS-22.DOC
- 06-Exhibit 4: External Photographs of the Equipment (Part 2.1033 (c)(12))**
File Name: 06-ExtPhoto_AS5ONEBTS-22.DOC
- 07-Exhibit 4B: Internal Photographs of the Equipment (Part 2.1033 (c)(12)) - CONFIDENTIAL*
No Change to this Exhibit - Not Re-Submitted
- 08-Exhibit 5: Test Set Up Photographs**
File Name: 08-TSup_AS5ONEBTS-22.DOC
- 09-Exhibit 6: Operational Description (Theory of Operation, Functional Description) - CONFIDENTIAL*
No Change to this Exhibit - Not Re-Submitted
- 10-Exhibit 7: Block Diagrams - System*
No Change to this Exhibit - Not Re-Submitted
- 11-Exhibit 8: Schematic Diagrams - ALCATEL-LUCENT CONFIDENTIAL*
No Change to this Exhibit - Not Re-Submitted
- 12-Exhibit 9: Test Report**
File Name: 12-TestRpt_AS5ONEBTS-22.DOC
- 13-Exhibit 10: UMTS – Operation, Administration and Maintenance Documents – CONFIDENTIAL*
No Change to this Exhibit - Not Re-Submitted
- 14-Exhibit 11: Tuning Procedure, if Applicable*
No Change to this Exhibit - Not Re-Submitted
- 15-Exhibit 12: Parts List, if Applicable*
No Change to this Exhibit - Not Re-Submitted