



Subject: **Application for Class II Permissive Change under FCC ID:AS5ONEBTS-17, Covering the 9341 RRH 40W 850 MHz Base Station, Operating in the Cellular Radiotelephone Service, 869-894 MHz.**

67 Whippany Road
Whippany, NJ 07981

Rudolf J. Pillmeier
Telephone: 973-386-3837
E-Mail: rpillmeier@alcatel-lucent.com

March 26, 2008

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 **9341 RRH 40W 850 MHz** Universal Mobile Telecommunications System (UMTS) Distributed Base Station System (850 MHz) was previously issued an initial Grant of Equipment Authorization, under FCC ID: AS5ONEBTS-17, effective October 26, 2007. This initial Grant covered a 21 MHz segment of the Cellular Frequency Spectrum (869-890 MHz). The purpose of this Class II Change Request is to extend the current authorization to cover the full 25 MHz Cellular Band 869-894 MHz. The only change is the Tx/Rx filter bandwidth; the transceiver, amplifier, reference frequency oscillator and digital circuitry remain unchanged. The equipment enclosure cabinet has been modified to provide a smaller profile than the initial filing.

The transmitted RF power rating remains unchanged at a single UMTS carrier operating at 40 Watts (+46 dBm) and two UMTS carriers operating at 20 Watts (+43 dBm) per carrier with a total composite power of 40 Watts. The RF power rating is based the 3-second average, employing the Aggregate Overload Control (AOC) algorithm. The Class II Permissive Change Grant of Equipment Authorization should include the following statement in the Grant notes:

Total composite RF power is 40 Watts.
Single carrier is 40w per carrier.
Two carriers are 20 watts per carrier.

Enhanced Digital Predistortion (EDPD) and Closed Loop Gain Control (CLGC) are features that are enabled for each carrier. The single UMTS carrier has an emission bandwidth of 5 MHz, with an emission designator of 4M10F9W, based on measurement of the Necessary Bandwidth. UMTS modulation capability demonstrated includes 1) up to 68 active channels, consisting of 64 voice + 4 control, 2) up to 44 active channels, which include 8 High Speed Downlink Packet Access (HSDPA) channels, and 3) a single active channel *Synchronization Channel* (SCH).

The **9341 RRH 40W 850 MHz** 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 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 channels cards, reference oscillator module, T1/E1 and alarm interface, and the RF-to-Optical and Optical-to-RF conversion circuitry. The 850 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 22), and with the European Telecommunications Standards Institute (ETSI) 3rd Generation Partnership Project (3GPP) Technical Specifications TS 25.104 and TS 25.141. The UMTS carrier and system are designed and developed for compliance with 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)"* standard. In accordance with FCC Rule Part 2.947 *Measurement Procedure*, the Commission will accept data which have been measured in accordance with the following standards or measurement procedures: (1) Those originating with the OET, and (2) Those acceptable to the Commission and published by national engineering societies such as the Electronic Industries Association, the Institute of Electrical and Electronic Engineers, Inc., and the American National Standards Institute. ETSI qualifies for this category.

The measurement exhibits attached to this application demonstrate full compliance with both FCC Part 22 Subpart H – Cellular Radiotelephone Service 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-17
Rules Part Number	Part 22, Subpart H – Cellular Radiotelephone Service
Frequency Ranges	Transmit 869–894 MHz
Output Power	40 Watts (+46 dBm) total, with a single carrier at 40 Watts, and 2 carriers at 20 Watts per carrier.
Frequency Tolerance	± 0.05 ppm
Emission Designator	4M10F9W

As a Class II Permissive Change, only the RF characteristics and exhibits that are affected by the change will be evaluated and reported. Exhibits that remain unchanged from the initial filing will not be repeated for brevity. The exhibits previously requested to be held confidential must remain as permanent confidential and will not be repeated in this submission.

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 Alcatel-Lucent **9341 RRH 40W 850 MHz** Base Station. 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.

Sincerely,

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

Att.
Table of Contents for the UMTS **9341 RRH 40W 850 MHz** Base Station System Certification Report.

TABLE OF CONTENTS

Note: All Exhibits highlighted in **RED** are unchanged from the initial filing and will not be repeated.

Cover Letter

Request for Confidentiality

- Exhibit 1: 731 Form
- Exhibit 2: FCC ID Label Sample and Location Information
- Exhibit 3: FCC Required Information (Part 2.1033)
- Exhibit 4A: External Photographs of the Equipment (Part 2.1033 (c)(12))
- Exhibit 4B: Internal Photographs of the Equipment (Part 2.1033 (c)(12))
- Exhibit 5: Test Set Up Photographs
- Exhibit 6: Operational Description (Theory of Operation, Functional Description) -
ALCATEL-LUCENT CONFIDENTIAL**
- Exhibit 7: Block Diagrams - System
- Exhibit 8: Schematic Diagrams - ALCATEL-LUCENT CONFIDENTIAL**
- Exhibit 9: Test Report
- Exhibit 10: UMTS – Operation, Administration and Maintenance Documents –
ALCATEL-LUCENT CONFIDENTIAL**

All Exhibits highlighted in **RED** are unchanged from the initial filing and will not be repeated.