



**Timco Engineering Inc.
FCC Authorized Telecommunications
Certification Body (TCB)**

Alcatel-Lucent Inc.
67 Whippany Road
Whippany, NJ 07981

February 15, 2007

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

Dear Mr. Sanders

The Lucent FLEXENT® Broadband PCS UMTS-CDMA Transceiver System (1900), the subject of this request for a Class II Permissive Change, was previously authorized for UMTS operation, under **FCC ID: AS5ONEBTS-10** as a 40 watt single carrier UMTS Transceiver and as a 20 W/ carrier multi carrier CDMA Transceiver. Lucent hereby requests that the CDMA emission designator **1M25F9W** be added to the **AS5ONEBTS-10** authorization at the 40 Watt single carrier power. The FLEXENT® Broadband PCS UMTS-CDMA Transceiver System (1900) can be used either as a Multi-Carrier CDMA or Multi-Carrier UMTS transceiver. There are no physical, hardware or circuit changes to the transceiver system. All required supporting exhibits, not previously submitted with the initial filing, are attached.

The **FLEXENT® PCS UMTS-CDMA EDPD Transceiver System with Enhanced Digital Pre-Distortion (EDPD)** configures a CDMA Multi Carrier Radio (**MCR-1900**) and PCS 2 Power Amplifier Module (**P2PAM**) to allow for increased capacity. The Transceiver System includes the principle RF components which have been previously filed under this FCC ID: **AS5ONEBTS-10** and various other FCC ID's. These include the (1) Multi-Carrier Radio (**MCR1900**), Model BNJ64, authorized under FCC ID: **AS5ONEBTS-09**, (2) P2PAM power amplifier authorized under FCC ID: **AS5ONEBTS-06**, (3) 60 MHz wide Dual Duplex (DDpx) low loss transmit filters covering the PCS Spectrum 1930-1990 MHz and (4) Rubidium and Crystal Reference Oscillator Module (OMR/OMC) 15 MHz.

The EDPD system uses the present hardware in conjunction with UMTS-CDMA system software to monitor the output of the transmit amplifiers and feed it back to the MCR for processing and distortion cancellation. 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) which provide constant power over temperature, and (2) Lucent's proprietary Enhanced Digital Pre Distortion (EDPD) technology which enables communication between the transceiver, power amplifier and the transmit filter to achieve this goal.

This Class II change applies the CDMA Emissions designator parameters to the UMTS system transceiver authorization, which used these same active components and was reviewed and authorized under FCC ID: AS5ONEBTS-10. The only differences is the standard CDMA format with the 1M25F9W emissions designator. The output power remains at 40 watts for one carrier. The measurement exhibits attached to this application demonstrate full compliance with FCC Part 24 Subpart E – Broadband PCS 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 Identification:	AS5ONEBTS-10
Rules Part Number:	Part 24, Subpart E – Broadband PCS
Frequency Range:	Transmit 1930–1990 MHz (All PCS Blocks)
Output Power:	0.040 to 40.0 Watts per CDMA carrier - 40 Watts Total
Frequency Tolerance:	± 0.05 ppm
Emission Designator:	1M25F9W

Alcatel-Lucent Inc. - Proprietary
Use pursuant to Company Instructions.

Attached are the FCC Form 731 (Application for Equipment Authorization – Radio Frequency Devices), the required measurement data and exhibits specific to this request for initial equipment authorization of the PCS CDMA EDPD Transceiver System. The technical or non-technical contact at Lucent will comply with any request for additional information should the need arise. The attached exhibits with the applicable FCC Rule section are assembled and presented in accordance with the *Table of Contents* attachment. Included is a formal letter requesting confidentiality for the following exhibits:

Exhibit # FCC Rule Section Exhibit Title

Exhibit 4 Section 2.1033(c) (8,9) Active Circuit Devices Drive Levels, Tune-Up procedures

Exhibit 5 Section 2.1033(c) (10) Complete Circuit Diagrams, Circuitry for Spurious Suppression

Exhibit 6 Section 2.1033(c) (12,3) Installation and Operating Instructions

Should there be any questions or procedural issues please feel free to contact me by email and/or phone.
Sincerely,

Rudolf J. Pillmeier

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Att. Table of Contents for the FLEXENT® PCS CDMA EDPD Transceiver System Product Certification Report

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Cover Letter
Request for Confidentiality

<u>Exhibit #</u>	<u>FCC Rule Number</u>	<u>Description</u>	
Exhibit 1	Section 2.1033(a)	FCC Form 731	
Exhibit 2	Section 2.911 (d)	Qualifications and Certifications	
Exhibit 3	Section 2.1033(c) (1,2,4,5,6,7)	Manufactures, FCC Identifier, Emission, Frequency Range and RF Power Range	
Exhibit 4	Section 2.1033(c) (8,9)	Active Circuit Devices Drive Levels, Tune-Up procedure	(Confidential)
Exhibit 5	Section 2.1033(c) (10)	Complete Circuit Diagrams	(Confidential)
Exhibit 6	Section 2.1033(c) (12,3)	Instruction Book	(Confidential)
Exhibit 7	Section 2.1033(c) (10)	Circuitry for determining frequency and Suppression of Spurious	(Confidential)
Exhibit 8	Section 2.1033(c) (11)	Drawing of the Identification Label	
Exhibit 9	Section 2.1033(c) (12)	Photographs of the Equipment	
Exhibit 10	Section 2.1033(c) (13)	Description of Modulation System	

Test Report Exhibits

<u>Exhibit #</u>	<u>FCC Rule Number</u>	<u>Description of Test Report Exhibits</u>
Exhibit 11	Section 2.1033(c) (14)	Listing of Required Measurements
Exhibit 12	Section 2.1046	Measurement of Radio Frequency Power Output
Exhibit 13	Section 2.1047	Measurement of Modulation Characteristics
Exhibit 14	Section 2.1049	Measurement of Occupied Bandwidth
Exhibit 15	Section 2.1051	Measurement of Spurious Emissions at Antenna
Exhibit 16	Section 2.1053	Field Strength of Spurious Radiation
Exhibit 17	Section 2.1055	Measurement of Frequency Stability