



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

October 22, 2009

Sid Sanders - President

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

Dear Mr. Sanders

The Alcatel-Lucent FLEXENT® Broadband PCS UMTS-CDMA Transceiver System (1900), the subject of this request for a Class II Permissive Change, was previously authorized under **FCC ID: AS5ONEBTS-10** as a UMTS Transceiver for 40 W/ carrier multi carrier operation for 1 to 3 carriers when using up to 3 P2PAM amplifiers. Alcatel-Lucent hereby requests, for the CDMA emission designator **1M25F9W**, that multi carrier operation for 3 carriers at 40 W/carrier 120W total be added when using up to 3 P2PAM amplifiers. There were no physical, hardware or circuit changes required to either the PCS Multi Carrier Radio, **MCR-1900**, or to the PCS 2 Power Amplifier Module, P2PAM. The **MCR-1900**, which is the frequency generating and stabilizing component of the **AS5ONEBTS-10** authorization, was designed and individually authorized as an 11 carrier radio under **FCC ID: AS5ONEBTS-09** and has not changed. 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 four PCS 2 Power Amplifier Module (**P2PAM**) to allow for increased RF carrier count but does not change the previously authorized per carrier RF power. 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) 60/65 MHz wide Dual Duplex (DDpx) low loss transmit filters covering the PCS Spectrum 1930-1995 MHz and (4) Rubidium and Crystal Reference Oscillator Module (OMR/OMC) 15 MHz.

This Class II change applies the CDMA **1M25F9W** emissions designator to the previously authorized three carrier operation at 40 Watts per carrier. The total output power for the 3 amplifier configuration will be 120 Watts total. 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 1930–1995 MHz (All PCS Blocks) (A – G)
Output Power:	0.04 to 40 Watts per CDMA carrier – 3 carriers max 120 Watts Total
Frequency Tolerance:	± 0.05 ppm
Emission Designator:	1M25F9W

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 Alcatel-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