

**Lucent Technologies**  
Bell Labs Innovations



Lucent Technologies Inc.  
67 Whippany Road  
Whippany, NJ 07981

**June 8, 1999**

Office of Engineering and Technology  
Authorization and Evaluation Division  
Equipment Authorization Branch  
7435 Oakland Mills Road  
Columbia, Maryland 21046

**Re: Application for Certification of FCC ID: AS5CMP-31**

**Dear Examiner:**

In accordance with Parts 2 and 24 of the Commission's Rules and Regulations, we are submitting herewith statements and supporting data to show compliance with the requirements of the Commission for certification of the Lucent Technologies FLEXENT™ PCS-TDMA Multi Carrier Linear Amplifier (PMCLA), Part Number 44WA28, under FCC ID: AS5CMP-31, as a base station power amplifier. The PMCLA is designed to perform linear amplification of from 1 to 10 TDMA carriers (30 kHz bandwidth) at a maximum rated power level 1.2 Watts (30.8 dBm) per carrier and a total composite power level for 10 carriers of 12 Watts (40.8 dBm), at the transmit antenna terminal. The PMCLA is also designed to operate linearly over the entire PCS frequency band: 1930.08 - 1989.96 MHz. The gain of the amplifier is adjustable from 42 dB to 38 dB, in 0.5 dB steps, by external software control. It is designed to be installed and operate in the FLEXENT™ PCS-TDMA Microcell J41698A-1 base station equipment frame, in combination with the PCS-TDMA Dual Radio Module (PDRM), Part No. 44WR53, under FCC ID: AS5CMP-30 as a separate application for certification, and in combination with a duplexed transmit and receive (Tx/Rx) 60 MHz bandpass filter.

The data summarized below is in the form presently used by the Commission's Radio Equipment List, Equipment Acceptable for Licensing.

Manufacturer	Lucent Technologies, Columbus, Ohio
Equipment Identification	AS5CMP-31
Rules Part Number	Part 24, Subpart E – Broadband PCS
Frequency Range	Transmit 1930.08-1989.96 MHz
Output Power	1.2 Watts (30.8 dBm) per carrier maximum 12.0 Watts (40.8 dBm) total composite for 10 carriers.
Frequency Tolerance	± 1.5 ppm
Emission Designator	40K0GXW

The PCS-MCLA, under AS5CMP-31, was designed in accordance with the guidelines of TIA/EIA/IS-136.2-A (October 1996): TDMA Cellular/PCS – Radio Interface – Mobile Station – Base Station Compatibility – Traffic Channels and FSK Control Channel ; TIA/EIA/IS-138-A (July 1996): TDMA Cellular/PCS – Radio Interface – Minimum Performance Standards for Base Stations; and ANSI J-STD-010-1996: PCS IS-136 Based Base Station – Minimum Performance 1900 MHz Standard.

Attached are the FCC Form 731 (Application for Equipment Authorization – Radio Frequency Devices) and the required measurement data and exhibits. These exhibits contain the technical requirements, and the required statements and documents for equipment authorization. The technical contact at Lucent Technologies will comply with any request for additional information should the need arise.

Lucent Technologies has requested that the following exhibits be **considered confidential**:

**Exhibit 4** FLEXENT™ TDMA Microcell: Operation, Administration, and Maintenance Manual

**Exhibit 6** Schematic Diagrams

The letter of request is attached and the required fees are submitted as required for electronic filing.

Sincerely,

R. J. Pillmeier  
Technical Manager  
Certification Test Group

Att.  
Transmitter Certification Report