

Lucent Technologies
Bell Labs Innovations



**Federal Communications Commission
Office of Engineering and Technology
Equipment Authorization Division,
Application Processing Branch**

Lucent Technologies Inc.
67 Whippany Road
Whippany, NJ 07981

October 15, 1999

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

Dear Examiner:

In accordance with Parts 2 and 22 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 Product Certification of the Lucent Technologies Corp. Cellular Baseband Combiner and Radio, henceforth **BCR, FCC ID: AS5CMP-24**.

This **BCR** is used in Lucent Technologies **AUTOPLEX**® Land Station Cellular system using Code Division Multiple Access (CDMA) technology, for use in domestic cellular services. This application for the **BCR**, under **FCC ID: AS5CMP-24**, is for operation in the domestic cellular bands A and B. The data summarized below is in the form presently used by the Commission's Radio Equipment List.

Manufacturer	Lucent Technologies, Inc.
Equipment Identification	AS5CMP-24
Rules Part Number	22 (H)
Frequency Range	869 -894 MHz Cellular Bands
Output Power	-30 to 0.0 dBm Varied By Software
Frequency Tolerance	+/- 0.5 ppm
Emission Designator	1M23G9W

The **BCR** under **FCC ID: AS5CMP-24** is a direct replacement for the previous **BCR** granted under **FCC ID: AS5CMP-21**. The two designs are electrically and topologically similar but the new **BCR** uses surface mount components and has revised circuitry with multiple vendors for frequency generation and up/down-conversion components. This application is submitted in order to comply with the 2.1043a requirement for refiling whenever changes are made to the frequency generating and stabilizing circuits.

The **BCR** is designed to be operated and marketed with other Lucent Technologies Corp. Series II CDMA transmit equipment which was either Type Accepted or Product Certified. The **BCR** is a CDMA cellular base station transceiver and will be used in both Cellular and PCS operations.

It shall be used with a FCC Product Certified power amplifier (with spurious filters) when in normal cellular base station operation. PCS applications shall not require modification to this transceiver. As with the previously granted **AS5CMP-21**, the output of this unit will be applied to a FCC Product Certified CDMA Transmit Unit (**CTU**, Upbander-Amplifier such as the **AS5CMP-23**). The **CTU** shall convert the signal from the cellular frequency produced by the **BCR** to a PCS frequency. It will then be amplified and filtered for use in the domestic PCS service. The **BCR** will undergo formal evaluation with every cellular amplifier and Upbander-Amplifier with which it is marketed. The overall performance of the integrated equipment shall continue to be compliant with FCC requirements. FCC Class I permissive change evaluations will be processed for all of the integrated products. As per prior agreement with the FCC, degradations in performance shall be reported.

The **BCR**, at its output, is typically operated over the power range of -30 dBm to 0.0 dBm. The output of this unit is always subjected to additional signal amplification and post amplification filtering for spurious control prior to connection to the (J4) antenna connector. The total power is limited to the latter value and is the level for this application. The actual power level delivered by the **BCR** is under the software control of the Mobile Switching Center of the local Cellular system. The software control only allows for adjustment in power necessary to provide the rated maximum of the co-configured transmitter

The evaluation of the "Spurious emissions at antenna terminals" (Sec. 2.1051) were made with a **CTU/AS5CMP-23** and its associated filters. This **CTU** was also used for the "Field strength of spurious radiated" (Sec. 2.1053) measurements.

Wherever possible the test procedures defined in CFR 47 Part's 2(J) and 22(H) were followed.

Because of the "state of the art" nature of this equipment some of the characteristics cannot be tested using the requirements in CFR 47, so for those characteristics EIA/TIA publication IS-97 or ANSI J-STD-008 was used to define the tests and evaluation criteria used in this application.

The **BCR/ AS5CMP-24** is produced by Lucent Technologies Inc. solely for incorporation into Lucent Technologies Inc. products.

Enclosed in this electronically transmitted online package is a copy of FCC Form 731 (Application for Equipment Authorization - Radio Frequency Devices) and the required exhibits. These exhibits contain the technical data, and the required statements and documents for Product Certification. The technical contact at Lucent Technologies, Bell Laboratories, will comply with any request for additional information should the need arise.

Sincerely,

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