

**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.

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

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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**TABLE OF CONTENTS**

Exhibit 1	Section 2.911 (d)	Qualifications and Certifications
Exhibit 2	Section 2.1033(a) (b)	Manufactures, Identification, Production
Exhibit 3	Section 2.1033(b) (1-7)	Emission, Freq. Range, Power Level
Exhibit 4	Section 2.1033(b) (4)	Description of Circuit functions
Exhibit 5	Section 2.1033(c) (8,10)	Active Devices Drive Levels & Circuit Diagrams
Exhibit 6	Section 2.1033(c) (3)	Instruction Book
Exhibit 7	Section 2.1033(c) (9)	Tune-Up procedure
Exhibit 8	Section 2.1033(c) (10)	Circuitry for determining frequency
Exhibit 9	Section 2.1033(c) (10)	Circuitry for Suppression of Spurious
Exhibit 10	Section 2.1033(c) (13)	Description of Modulation System
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
Exhibit 18	Section 2.1033(c) (11)	Drawing of the Identification Label
Exhibit 19	Section 2.1033(c) (12)	Photographs of the Equipment

**EXHIBITS TO BE KEPT CONFIDENTIAL**

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