

Lucent Technologies Inc.  
101 Crawford's Corner Road  
Holmdel, NJ 07733-3030

October 30, 2000

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 Part 2.1043(b) (2) of the Commission's Rules and Regulations, we are submitting an application for approval of Class II permissive change. On June 16, 2000, the commission has granted FCC Part 24 equipment authorization certification under FCC ID: AS5FLX-01 for "Flexent GSM 1900 Transceiver", a single radio frequency unit, henceforth TRX19, for a maximum RF power output of 29 watts per carrier at the antenna terminals. For this certification, tests were performed on "Flexent GSM 1900 Transceivers" installed in an indoor cabinet with -48V DC power supply input.

In addition to indoor cabinet configurations, we are planning to sell "Flexent GSM 1900 Transceivers" installed in an outdoor cabinets. The input power supply to the outdoor cabinet will be either 208V or 230V, 60Hz. The outdoor cabinets house identical indoor cabinet shelves and there are no electrical or physical changes in the RF path. Both indoor and outdoor configurations are explained in the attachments.

Attached is FCC Form 731 (Application for Equipment certification – Radio Frequency Devices) and the required exhibits. These exhibits contain the technical data, and the required statements and documents for Class II permissive change certification. The technical contact at Lucent Technologies Inc., Bell Laboratories, will comply with any request for additional information should the need arise.

Sincerely,

Dheena Moongilan  
Distinguished Member of Technical Staff  
Global Product Compliance Laboratory  
phone: (732) 332-6003  
email: moongilan@lucent.com

Attachment(s):

FCC Form 731 and Exhibits

## TABLE OF CONTENTS

Cover Letter

Product Configuration-Class II  
Permissive Change Description

Letter for Confidential Treatment of

### EXHIBITS

	<b>ATTESTATION STATEMENT</b>	
Section 2.911 (d)	Qualifications and Certifications	(No Change from Original Filing)
Section 2.1033 (c) (1,2)	Manufacturers, Identification	(No Change from Original Filing)
Section 2.1033 (c) (4-7)	Emissions, Frequency Range, Power Level	(No Change from Original Filing)
	<b>USERS MANUAL</b>	
Section 2.1033 (c) (3)	Users Manual	(New Configuration – Users Manual furnished)
Section 2.1033 (c) (9)	<b>PARTS LIST/TUNE-UP PROCEDURE</b> Tune-Up Procedure	(No Change from Original Filing)
Section 2.1033 (c) (13)	<b>OPERATIONAL DESCRIPTION</b> Description of Modulation System	(No Change from Original Filing)
Section 2.1033 (c) (10)	<b>SCHEMATICS</b> Schematic	(No Change from Original Filing)
Section 2.1043 (b) (2)	Block Diagrams	(No Change from Original Filing)
Section 2.1033 (c) (11) and 2.925 (a) (1)	<b>ID LABEL/LOCATION INFORMATION</b> Drawing of FCC ID	(No Change from Original Filing)
Section 2.1033 (c) (12)	<b>EXTERNAL PHOTOS</b> External Photos	(New Configuration – Photos furnished)
Section 2.1033 (c) (12)	<b>INTERNAL PHOTOS</b> Internal Photos	(No Change from Original Filing)
Section 2.1033 (c) (8)	<b>TEST REPORT</b> Measurement of DC Power	(No Change from Original Filing)
Section 2.1033 (c) (14)	Listing of Required Measurements	(No Change from Original Filing)
Section 2.1046	Measurement of Radio Frequency Power Output	(No Change from Original Filing)
Section 2.1047	Measurement of Modulation Characteristics	(No Change from Original Filing)
Section 2.1049 and Section 24.238 (b)	Measurement of Occupied Bandwidth	(No Change from Original Filing)

## **TABLE OF CONTENTS (continued)**

Section 2.1051	Measurement of Spurious Emissions at Antenna	(No Change from Original Filing)
Section 2.1053	Field Strength of Spurious Radiation	(New Configuration – Data furnished)
Section 2.1055	Measurement of Frequency Stability	(New Configuration – Data furnished)
Section 2.1057	Frequency Spectrum to be Investigated Test Instruments Used for Test	(No Change from Original Filing)
Section 24.51 (c)	Human Exposure	(Not Applicable)

**SYNOPSIS OF CLASS II PERMISSIVE CHANGE**  
**2.1043(b) (2)**

## **SYNOPSIS OF CLASS II PERMISSIVE CHANGE**

Original Certified Configuration:

**Flexent GSM 1900 Transceivers configured in an Indoor cabinet with –48V DC input Power Supply.**

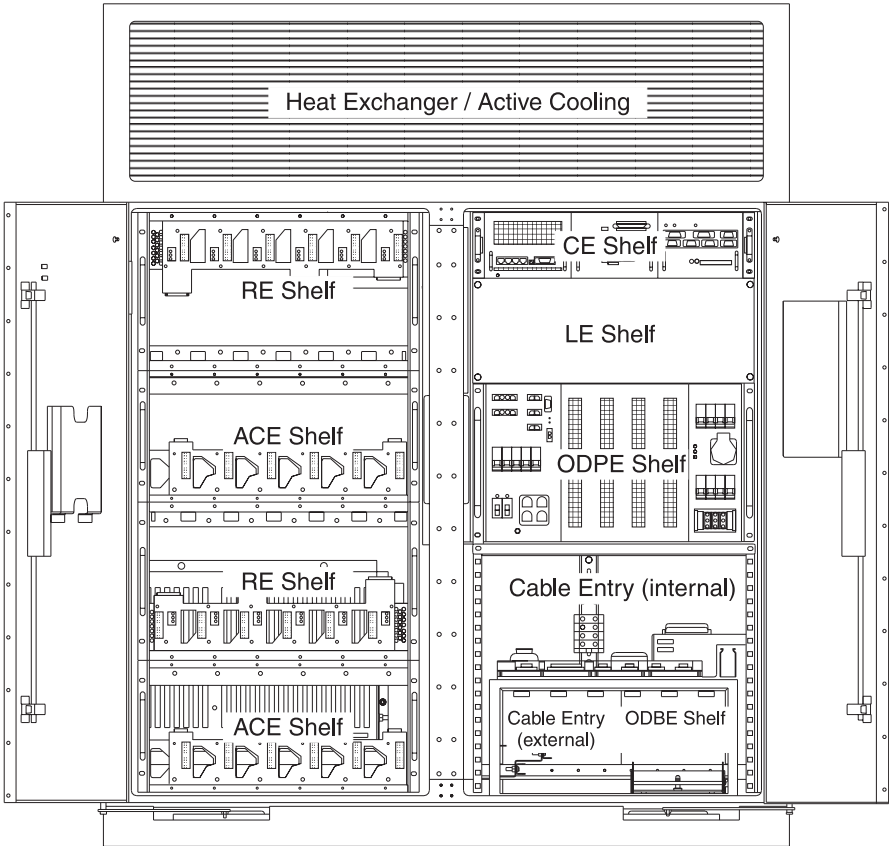
Additional New Configuration:

**Flexent GSM 1900 Transceivers configured in an Outdoor cabinet with 208V or 240V, AC Input Power Supply.** The outdoor cabinets house identical indoor cabinet shelves and there are no electrical or physical changes in the RF path.

Amendment Requested To existing Authorization:

**Equipment may be configured in an Indoor or outdoor cabinet.**

Inside view of the Outdoor Macrocell (shelves only):



**Shelves**    The Outdoor Macrocell contains the following shelves:

Shelf	Description
CE shelf	The Central Equipment shelf (CE shelf) contains the following units: <ul style="list-style-type: none"><li>• CE Power Supply and Connection Panel (CEPC)</li><li>• Central Controller (CC)</li><li>• External Alarm Board (EAB)</li><li>• CE-RIF with Mini Rack Interface (MRIF2X).</li></ul>
RE shelf	The Outdoor Macrocell is equipped with two Radio Equipment shelves (RE shelves). Each RE shelf contains a maximum number of six transceivers (TRX).

<b>Shelf</b>	<b>Description</b>
ACE shelf	The Outdoor Macrocell is equipped with two Antenna Coupling Equipment shelves (ACE shelves). The lower ACE shelf contains a maximum number of six Diplexer RX Multicouplers (DIRXMC). Depending on the configuration, the upper ACE shelf can be further equipped with combiner units.
ODPE shelf	The ODPE shelf contains the Outdoor Power Equipment (ODPE). The ODPE supplies the other components of the Outdoor Macrocell with and DC and AC voltage.
ODBE shelf	The ODBE shelf contains the Outdoor Battery Set. The Outdoor Battery Set consists of four interconnected backup batteries (ODBAT-SET).
LE shelf	The Link Equipment shelf (LE shelf) provides up to three installation slots for network modules (e.g., directional radio modems).
Cable Entry	The cable entry (cable connection compartment) contains all the system interface connections as well as the optional lightning protection.



## Cabinet View - Outdoor Macrocell

---

Component Numbering:

TRX11	TRX10	TRX9	TRX8	TRX7	TRX6	Central Equipment
						Link Equipment
COMB4/5		COMB2/3		COMB0/1		Power Equipment
TRX5	TRX4	TRX3	TRX2	TRX1	TRX0	Cable Entry (internal)
DIRXMC5	DIRXMC4	DIRXMC3	DIRXMC2	DIRXMC1	DIRXMC0	Cable Entry (external) ODBE

**TRX** The transceivers (TRX) in the lower RE shelf are numbered from the right to the left from 0 to 5, and in the upper RE shelf from the right to the left from 6 to 11.

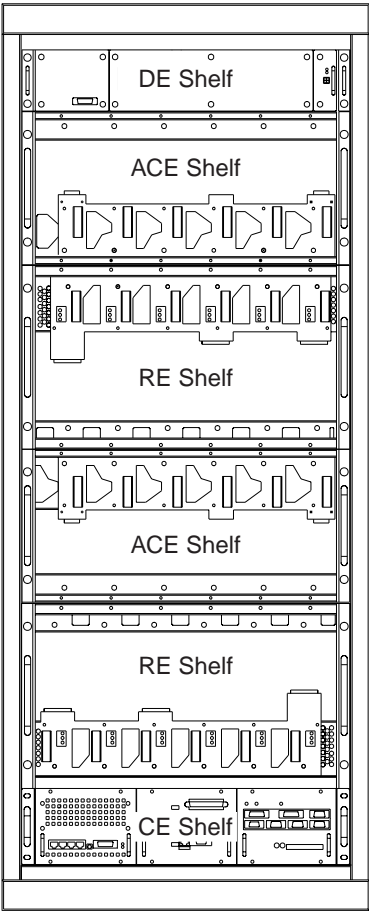
**DIRXMC** The Diplexer RX Multicouplers (DIRXMC) are numbered from the right to the left from 0 to 5.

**COMB** The combiners (COMB) are numbered from the right to the left from 0 to 5.

Hybrid Combiners (TX4H) are used as combiners. The TX4H unit occupies two slots, which is indicated by means of a double number (e.g. COMB0/1).



Inside view of the Indoor Macrocell (shelves only):



**Shelves**     The Indoor Macrocell contains the following shelves:

Shelf	Description
CE shelf	<div>The Central Equipment shelf (CE shelf) contains the following units:</div> <ul style="list-style-type: none"><li>• Mini Rack Interface (MRIF2(X))</li><li>• Central Controller (CC)</li><li>• External Alarm Board (EAB4)</li><li>• CE Power Supply and Connection Panel (CEPC).</li></ul>

<b>Shelf</b>	<b>Description</b>
RE shelf	The Indoor Macrocell is equipped with two Radio Equipment Shelves (RE shelves). Each RE shelf contains a maximum of six transceivers (TRX).
ACE shelf	The Indoor Macrocell is equipped with two Antenna Coupling Equipment Shelves (ACE shelves). The upper ACE shelf contains a maximum of six Diplexer RX Multicoupler units (DIRXMC). The lower ACE shelf can, depending on the configuration, be further equipped with combiner units.
DE shelf	In the Power Distribution Equipment shelf (DE shelf), the input voltage is distributed to the other components over safety cut-outs.



## Cabinet View - Indoor Macrocell

---

Component Numbering:

DE					
DIRXMC0	DIRXMC1	DIRXMC2	DIRXMC3	DIRXMC4	DIRXMC5
TRX0	TRX1	TRX2	TRX3	TRX4	TRX5
COMB0/1		COMB2/3		COMB4/5	
TRX6	TRX7	TRX8	TRX9	TRX10	TRX11
Central Equipment					

**TRX** The transceivers (TRX) are numbered in the upper RE shelf from left to right from 0 to 5 and in the lower RE shelf from left to right from 6 to 11.

**DIRXMC** The Diplexer RX Multicouplers (DIRXMC) are numbered from left to right from 0 to 5.

**COMB** The combiners (COMB) are numbered from left to right from 0 to 5. Hybrid Combiners (TX4H) are used as combiners. The TX4H unit occupies two slots, which is indicated by means of a double number (e.g. COMB0/1).



Global Product Compliance Laboratory  
101 Crawfords Corner Road  
Holmdel, NJ 07733-3030

October 30, 2000

**Subject: Confidential Treatment for User's Manual - FCC ID: AS5FLX-01**

**Dear Examiner:**

The 'Flexent GSM 1900 Transceiver' FCC ID AS5FLX-01 will not be sold to the general public, but restricted to network operators. The 'User's Manual' is provided to the network operators under a non-disclosure agreement. The general public does not have access to User's Manual of Flexent GSM 1900 transceiver. Therefore I would like to request you to treat the following as confidential.

(1) User's Manual

Thanks.

Sincerely,

Dheena Moongilan  
Distinguished Member of Technical Staff  
Bldg. 11B, Room 184