'ER SHEET       U.S. DEPARTMENT OF COMMERCE Patient and Trademark OF         Patient and Trademark OF        ord the attached original documents or copy thereor         Name and address of receiving party(ies):         Name:       Lucent Technologies Inc.         Internal Address:         Street Address:
Name and address of receiving party(ies):
Name and address of receiving party(ies): Name: Lucent Technologies Inc. Internal Address: Street Address:
Name and address of receiving party(ies): Name: Lucent Technologies Inc. Internal Address: Street Address:
Name: Lucent Technologies Inc.
Internal Address:
Street Address: _ 600 Mountain Avenue
/ • /
P.O. Box 636
City: Murray Hill State: NJ ZIP: 0636
Additional name(s) & address(es) attached? 🗋 Yes 🛛 🖾 No
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5. Total number of applications and patents involved:
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<ul> <li>5. Total number of applications and patents involved: 1</li> <li>7. Total fee (37 CFR 3.41): \$ 40.00</li> <li>C Enclosed</li> </ul>
5. Total number of applications and patents involved:  7. Total fee (37 CFR 3.41):

## ASSIGNMENT AND AGREEMENT

For value received, we, Rajiv Laroia, of Princeton Junction in the County of Mercer and State of New Jersey, Thomas J. Richardson, of South Orange in the County of Essex and State of New Jersey, and Rudiger L. Urbanke, of Murray Hill in the County of Union and State of New Jersey, hereby sell, assign and transfer to Lucent Technologies Inc., a corporation of the State of Delaware, having an office at 600 Mountain Avenue, Murray Hill, New Jersey, 07974-0636, U.S.A., and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to A Communication Method For Frequency Division Multiplexing Signalling Systems, With Reduced Average Power Requirements described in an application for Letters Patent of the United States, executed by us of even date herewith, and all the rights and privileges in said application and under any and all Letters Patent that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Lucent Technologies Inc. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Lucent Technologies Inc. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Lucent Technologies Inc. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Lucent Technologies Inc. in the United States and in all countries foreign to the United States, or to such nominees as Lucent Technologies Inc. may designate.

R. Laroia 7-8-2

We agree that, when requested, we shall, without charge to Lucent Technologies Inc. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Rajiv Laroia

Date: 3/10/98

United States of America

State of New Jenney ) ss.: County of (Union )

On this <u>10</u><sup>TC</sup> day of <u>March</u>, <u>1978</u>, before me personally came Rajiv Laroia, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

)

Notary Public

SHELLA H. COLD A NOTARY PUBLIC OF MEN JUNE My Commission Expires 19/18/2000

R. Laroia 7-8-2

Thomas J. Richardson

198 Date: 😤

United States of America

State of New Jerney County of Union ) ss.: )

On this <u>10</u> day of <u>Maxel</u>, <u>1998</u>, before me personally came Thomas J. Richardson, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

)

Nello F. Core

Notary Public

SHEILA R. COLE V PUBLIC OF NEW JERSEY Commission Expires 10/18/2000

R. Laroia 7-8-2

Rudiger L. Urbanke

3/10/48 Date:\_\_\_\_

United States of America )

State of New Jerroy ) ss .:

County of Union

On this 10 day of <u>Maul</u>, 19<u>98</u>, before me personally came Rudiger L. Urbanke, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

)

Charles K. Cole

Notary Public

SHEILA R. COLE A NOTARY PUBLIC OF NEW JERSEY My Commission Expires 10/18/2000

Lucent Technologies Inc. 600 Mountain Avenue (Room 3C-512) P. O. Box 636 Murray Hill, New Jersey 07974-0636