Docket No.: BRAR 1-5

U.S. DEPARTMENT OF COMMERCE FORM PTO-1595 (Modified) 06-24-2002 (Rev. 03-01) Patent and Traclemark Office OMB No. 0651-0027 (exp.5/31/2002) POBÁ/REVO3 Tab settings → → 102132308 To the Honorable Commissioner of ned original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): 6.14.02 KHUSHVINDER BRAR Name: LUCENT TECHNOLOGIES INC. CLIFFORD HEADLEY JEAN-CHRISTOPHER BOUTEILLER Address: 600 MOUNTAIN AVENUE **JAKE BROMAGE** ☐ Yes 🏿 No Additional names(s) of conveying party(ies) 3. Nature of conveyance: Merger City: MURRAY HILL State/Prov.: 1/1 ☐ Change of Name ☐ Security Agreement ZIP: 07974 Country: USA □ Other Execution Date: 5/22/02; 5/22/02; 5/22/02; 6/5/02 Additional name(s) & address(es) ☐ Yes ⊠ No Application number(s) or patent numbers(s): If this document is being filed together with a new application, the execution date of the application is: Patent Application No. Filing date B. Patent No.(s) 10/098,940 03/15/2002 ☐ Yes 🏻 No Additional numbers 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: concerning document should be mailed: Name: GLEN E. BOOKS, ESQ. 7. Total fee (37 CFR 3.41):....\$ 40.00 24,950 Registration No. ☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account Address: LOWENSTEIN SANDLER PC Authorized to be charged to deposit account 65 LIVINGSTON AVENUE 8. Deposit account number: 501358 State/Prov.: NJ City: ROSELAND (Attach duplicate copy of this page if paying by deposit account) Country: USA 10098940 00000095 501358 21/2002 DBYRNE DO NOT USE THIS SPACE FC:581 40.00 CH 9. Statement and signature. To the best of my knowledge and belief, the foliegoing information is true and correct and any attached copy is a true copy of the original document. 6/7/2002 **GLEN E. BOOKS** Date Name of Person Signing Signature Total number of pages including cover sheet, attachments, and

ASSIGNMENT AND AGREEMENT

For value received, we, Khushyinder Brar of Center to Leg, County of and State of New Jersey, Clifford Headley of Flemington, County of Hunterdon and State of New Jersey, Jean-Christopher Bouteiller of Somerset, County of Somerset and State of New Jersey and Jake Bromage of North Plainfield, State of New Jersey, 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 SINGLE-SOURCE MULTIPLE ORDER RAMAN AMPLIFIER FOR OPTICAL TRANSMISSION SYSTEMS described in an application for Letters Patent of the United States filed on March 15, 2002 under U.S. Serial No. 10/098,940 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 ful 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 Lucen: Technologies Inc. in the United States and in all countries foreign to the United States, or to such nominees as Lucent Technologies Inc. they may designate.

PATENT REEL: 13005 FRAME: 0985 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.

Khushvinder Brai

Date: 5/22/02

United States of America

State of Now Javay) ss.:

(County of Samuel)

On this was day of _______, 2002, before me personally came Khushvinder Brar, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

PATRICIA L. WOLFE MCTAIN FUBLIC OF NEW JEERLY Commission Explos 1/16/2003

Aloca & warich

	Clifford Headley
Date: 5/22/02	, - <u></u>
United States of America)
State of Word) ss.:
County of Seminat)

On this 22 day of Nay, 2002, before me personally came Clifford Headley, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Patricia I. Wound Notary Public of New Assey Commission Expires 1/16/2005

> PATENT REEL: 13005 FRAME: 0987

Jean-Christopher Bouteiller

Date: 5/22/02

United States of America

State of Now Justin) ss.:

County of Somewast)

On this day of ______, 2002, before me personally came Jean-Christopher Bouteiller, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Notary Public

PATRICIA L. WOLFE XCIAIY PUBIC OF NEW LEARY Commission Expires 1/16/203

	J.Bnwgl-
/ /	Jake Bromage
Date: 6/5/3008	
United States of America)	
State of NTIWIERSEY)s	s.:
State of NTWITERSEY) so	
On this $\frac{1}{2}$ day of $\frac{1}{2}$ came Jake Bromage, to me known	, 2002, before me personally to be the individual described in and who ad acknowledged execution of the same.
CHARLES L. WOLF Notary Public of New Jersey No. 2059705 My Commission Expires Apr. 25 18	Notary Public

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

RECORDED: 06/14/2002

PATENT REEL: 13005 FRAME: 0989