Docket No.: 463 07-03-2002 FORM PTO-1595 (Modified) **HFFT** U.S. DEPARTMENT OF COMMERCE (Rev. 03-01) Patent and Trademark Office OMB No. 0651-0027 (exp.5/31/2002) P08A/REV03 Tab settings → → To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Michael Y. Frankel Harshad P. Sardesai Name: CIENA CORPORATION Address: LEGAL DEPARTMENT 1201 WINTERSON ROAD ☐ Yes ☒ No Additional names(s) of conveying party(ies) Nature of conveyance: ■ Assignment Merger City: LINTHICUM ☐ Change of Name State/Prov.: MD ☐ Security Agreement ZIP: 21090 Country: US Other ____ Execution Date: June 3, 2002 ☐ Yes Additional name(s) & address(es) ☑ No 4. 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: June 18, 2002 B. Patent No.(s) Filing date Patent Application No. ☐ 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: MICHAEL R. CAMMARATA 7. Total fee (37 CFR 3.41):....\$ 40.00 Enclosed - Any excess or insufficiency should be Registration No. credited or debited to deposit account Address: CIENA CORPORATION Authorized to be charged to deposit account LEGAL DEPARTMENT 017402 8. Deposit account number: 1201 WINTERSON ROAD 50-0308 _____ State/Prov.: MD City: LINTHICUM (Attach duplicate copy of this page if paying by deposit accessint) ZIP: 21090 Country: US 3 DO NOT USE THIS SPACE 8 To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true 9. Statement and signature.

of the original document.

MICHAEL R. CAMMARATA

Name of Person Signing

Signature

Total number of pages including cover sheet, attachments, and

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

PATENT

REEL: 013038 FRAME: 0479

June 18, 2002

Date

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to CIENA a Delaware corporation, having a place of business at 1201 Winterson Road, Linthicum, MD 21090-2205, for itself and its successors, transferees, and assignees, the following:

The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the provisional application filed under 35 U.S.C. §111(b) or non-provisional application filed under 35 U.S.C. §111(a) and entitled

METHOD AND SYSTEM FOR USING OPTICAL PHASE CONJUGATION IN AN OPTICAL COMMUNICATIONS NETWORK INCLUDING AN ADD/DROP MULTIPLEXER

("APPLICATION") which:	
is to be filed herewith	
was filed on,	
now bearing U.S. application number	; and

- 2. The entire worldwide right, title, and interest in and to:
- (a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all utility, divisional, continuation, substitute, renewal, reissue, and other related applications thereto which have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) which may be granted on the applications set forth in (a), (b), (c) and (d) above; and (e) all right of priority in the APPLICATION, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

PATENT REEL: 013038 FRAME: 0480 Title of Document: ASSIGNMENT

Title: METHOD AND SYSTEM FOR USING OPTICAL PHASE CONJUGATION IN AN OPTICAL COMMUNICATIONS NETWORK INCLUDING AN ADD/DROP MULTIPLEXER

Filed: Herewith Serial No.: Unassigned

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

	Date of	Date Declaration
Name and Signature	<u>Signature</u>	Executed By This Person
in I lune	June 3 ,2002	June 5 ,2002
Michael Y. Frankel		
7221 Brookfalls Terrace		
Baltimore, MD 21209		
State of MARYLAND	S.S.	
State of MARYLAND County of BALTIMORE		
On	before me,	personally
[DATE]	[NOTARY PUBLIC]	
appeared personally	known to me or proved to me o	n the basis of satisfactory evidence to
[INVENTOR]		
be the person whose name is subscribed to	the within instrument and ackr	lowledged to me that he/she executed
the same in his/her authorized capacity, and	d that by his/her signature on th	e instrument the person, or the entity
upon behalf of which the person acted, exec	uted the instrument.	
Notary Seal	No	ary

Title of Document: ASSIGNMENT

Title: METHOD AND SYSTEM 1 OPTICAL COMMUNICATIONS NETV Filed: Herewith Serial No.: Unassigned	FOR USING OPTICAL PHAS VORK INCLUDING AN ADD	
Name and Signature:	Date of <u>Signature</u>	Date Declaration Executed By This Person
Huse	June 3 ,2002	June 3 ,2002
Harshad Sardesai 4427 Doncaster Drive Ellicott City, Maryland 21043 State of MARYLAND County of HOWAI2D	}S.S. }	
		mana analler
On[DATE]	before me, personally [NOTARY PUBLIC]	
appeared personally personally personally personally personally personally person whose name is subscribed to the same in his/her authorized capacity, an upon behalf of which the person acted, execution personal per	known to me or proved to me or the within instrument and acknowled that by his/her signature on the	n the basis of satisfactory evidence to nowledged to me that he/she executed
Notary Seal	Not	tary

PATENT

2 **RECORDED: 06/18/2002 REEL: 013038 FRAME: 0482**