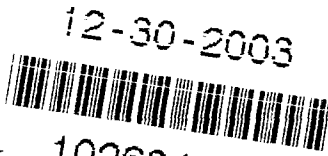


12-19-03

RE



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To the ... Please record the attached ... 102634869

rk Office: copy thereof.

22390 U.S. PTO 10/739157



1. Name of conveying party(ies):  
 [FAMILY NAME (ALL CAPS), Given Name]  
**PHEIFFER, Brian**  
**WANG, Yalin**  
**BRYTTEGARD, Robert**  
**MCINTOSH, Kyle**

Additional name(s) of conveying party(ies) attached?  
 YES  NO

2. Name and address of receiving party(ies)  
 Name: **CIENA CORPORATION**  
 Internal Address:  
 Street Address: **1201 Winterson Road**  
 City: **Linthicum** State: **MD** ZIP: **21090**  
 Country: Postal Code:  
 Additional name(s) & address(es) attached?  YES  NO

3. Nature of conveyance:  
 Assignment  Merger  
 Security Agreement  Change of Name  
 Other:

Execution Date: **December 18, 2003**

4. Application number(s) or patent number(s): **101739157**  
 If this document is being filed together with a new application, the execution date of the application is: **December 18, 2003**

A. Patent Application No(s). **New**

B. Patent No.(s).

Additional numbers attached?  YES  NO

5. Name and address of party to whom correspondence concerning document should be mailed:  
 Name: **BIRCH, STEWART, KOLASCH & BIRCH, LLP**  
 Street Address: **P.O. BOX 747**  
 City: **FALLS CHURCH** State: **VA** ZIP: **22040-0747**  
 Country: **USA**

6. Total No. of applications/patents involved: **One (1)**


7. Total fee (37 C.F.R. § 3.41): **\$40.00**  
 Enclosed  
 Authorized to be charged to deposit account, **if no fee attached.**

8. Deposit account number: **02-2448**

(Attach triplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

Michael R. Cammarata, #39,491  December 19, 2003  
 Name of Person Signing/Reg. No. Signature Date

Total number of pages including cover sheet, attachments, and document: **Four (4)**

ATTORNEY DOCKET NO. 4450-0419P

**BIRCH, STEWART, KOLASCH & BIRCH, LLP**

UNITED STATES PATENT RIGHTS, OR  
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

**ASSIGNMENT**

Application No. New

Filed Dec. 19, 2003

Insert Name(s)  
of Inventor(s)

\*\*\*(Given Name FAMILY NAME (ALL CAPS))\*\*\*

WHEREAS, Brian PHEIFFER Yalin WANG  
Robert BRYTTEGARD Kyle MCINTOSH

Insert Title  
of Invention

BIDIRECTIONAL LINE SWITCHED PARTIAL RINGS, MESH NETWORKS, AND METHODS OF OPERATION

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application).

Insert Date  
of Signing of  
Application

on December 19, 2003; and

Insert Name  
of Assignee

WHEREAS, CIENA Corporation

Insert Address  
of Assignee

of 1201 Winterson Road, Linthicum, MD 21090

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and  in any foreign countries.

CHECK BOX  
IF APPROPRIATE

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.


The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

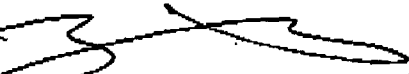
The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date Dec 18<sup>th</sup>, 2003

Name of Inventor   
(signature) Brian PHEFFER

Date Dec. 18<sup>th</sup>, 2003

Name of Inventor   
(signature) Yalin WANG

Date Dec. 17, 2003

Name of Inventor   
(signature) Robert BRYTTEGARD

Date \_\_\_\_\_

Name of Inventor \_\_\_\_\_  
(signature) Kyle MCINTOSH

Date \_\_\_\_\_

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_

Name of Inventor \_\_\_\_\_  
(signature)

Attorney Docket No. 4450-0419P

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date \_\_\_\_\_ Name of Inventor \_\_\_\_\_  
(signature) Brian PHEIFFER

Date \_\_\_\_\_ Name of Inventor \_\_\_\_\_  
(signature) Yalin WANG

Date \_\_\_\_\_ Name of Inventor \_\_\_\_\_  
(signature) Robert BRYTTEGARD

Date 12/18/03 Name of Inventor \_\_\_\_\_  
(signature) Kyle MCINTOSH

Date \_\_\_\_\_ Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_ Name of Inventor \_\_\_\_\_  
(signature)