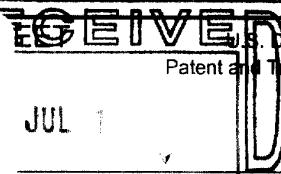


07-08-1998



OMB No. 0651-0011 (exp. 4/94)

Tab settings →→→

To the Honorable Commissioner



100756166

the attached original documents or copy thereof.

1. Name of conveying party(ies):

**Macro-Vision Communications, LLC**

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

Execution Date: **June 24, 1998**

2. Name and address of receiving party(ies)

Name: **Chorum Technologies Inc.**

Internal Address:

Street Address: **1155 East Collins Blvd., Suite 200**

City: **Richardson** State: **TX** ZIP: **75081**

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)  
**08/739,424 60/042,575**  
**60/038,389 08/897,353**  
**60/042,373 08/907,551**

B. Patent Registration No.(s)  
**5,724,165**  
**5,694,233**  
**5,606,439**

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: **Thomas S. Birney, Esq.**

Internal Address: **DORR, CARSON, SLOAN &  
BIRNEY, P.C.**

Street Address: **3010 E. 6th Ave.**

City: **Denver** State: **CO** ZIP: **80206**

**07/06/1998 SSMITH 00000025 08739424**

6. Total number of applications and patents involved: **9**

7. Total Fee (37 CFR 3.41) **\$ 360**

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

**04-1414**

(Do not attach duplicate copy of this page)

**01 FC:581**

**360.00 UP**

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9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

**Thomas S. Birney**

Reg. No. 30,025

Name of Person Signing

*Thomas S. Birney*

Signature

**6/29/98**

Date

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

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

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

**PATENT**

**REEL: 9279 FRAME: 0354**

## ASSIGNMENT

WHEREAS, Macro-Vision Communications, LLC, a Colorado limited liability company, whose address is 5490 Conestoga Court, Boulder, Colorado 80301 (the "Assignor") is the owner of record in the U.S. Patent Office of the following U.S. patents and patent applications:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor</u>	<u>Title</u>	<u>Patent No.</u>	<u>Issue Date</u>
08/685,150	07/23/96	Wu	Fault-Tolerant Optical Routing Switch	5,724,165	03/03/98
08/739,424	10/29/96	Wu et al.	Programmable Wavelength Router		
08/780,291	01/08/97	Wu et al.	Switchable Wavelength Router	5,694,233	12/2/97
60/038,389	02/14/97	Wu et al.	Temperature Insensitive Polarization Filter		
60/042,373	03/24/97	Wu et al.	Optical Add/Drop Wavelength Switch		
60/042,575	04/02/97	Wu et al.	1x2 <sup>N</sup> Digitally Programmable Optical Routing Switch		
08/897,353	07/21/97	Wu et al.	Broadband Optical Power Regulator		
08/907,551	08/08/97	Wu et al.	Multi-Wavelength Cross-Connect Optical Network		
08/629,523	04/10/96	Wu	Tunable Add/Drop Optical Filter	5,606,439	02/25/97

WHEREAS, the Assignor is also the owner of the following international patent applications under the Patent Cooperation Treaty (PCT):

<u>Application No.</u>	<u>Filing Date</u>	<u>Inventor</u>	<u>Title</u>
PCT/US97/11480	06/30/97	Wu	Fault-Tolerant Optical Routing Switch
PCT/US97/18417	10/15/97	Wu et al.	Programmable Wavelength Router

WHEREAS, Chorum Technologies Inc., a Delaware corporation, whose address is 1155 East Collins Boulevard, Suite 200, Richardson, Texas 75081 (the "Assignee"), is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions, patents, and patent applications in the United States and in any and all foreign countries.

THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) paid by the Assignee to the Assignor, and other good and valuable consideration, receipt whereof is hereby expressly acknowledged, the Assignor hereby sells, transfers and sets over to the Assignee, and its successors, legal representatives and assigns, the entire right, title and interest in and to the aforesaid inventions, patents, and patent applications for the territory of the United States of America and for all foreign countries, and to all letters patent, divisions, continuations, continuations-in-part, substitutions, reissues, re-examinations and extensions to be obtained therefor, including the right to sue for past infringement.

The Assignor further agrees to cooperate with the Assignee in obtaining and sustaining any or all such letters patent, but at the expense of the Assignee. The Commissioner of Patents is hereby authorized and requested to issue the letters patent solely in accordance with this assignment, to the Assignee, its successors, legal representatives and assigns, as the assignee of the entire right, title and interest therein.

Further, the Assignor agrees to communicate to the Assignee, or its representatives, any facts known to the Assignor respecting the inventions, and testify in any legal proceedings, sign all lawful papers, execute all division, continuation, continuation-in-part, substitution, reissue, re-examinations and extension applications, execute all necessary assignment papers to cause any and all of said letters patent to be issued to the Assignee, make all rightful oaths and generally do everything necessary or desirable to aid the Assignee, its successors and assigns, to obtain and enforce proper protection for the inventions in the United States and in any and all foreign countries.

Macro-Vision Communications, LLC

By:   
Jian-Yu Liu, Vice President

STATE OF COLORADO

§

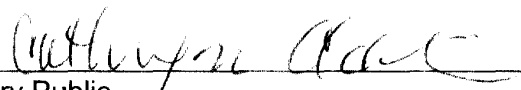
§

COUNTY OF BOULDER

§

Before me, the undersigned authority, on this day personally appeared Jian-Yu Liu, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

Given under my hand and seal of office on this 24 day of June, 1998.

  
\_\_\_\_\_  
Notary Public

My commission expires October 9, 1999  
2960 Diagonal Highway, Boulder, CO 80301