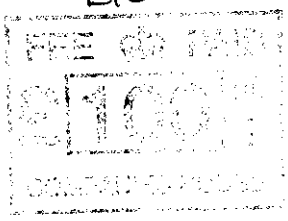
books on screen™

CHFP021

S|Day
HSBC
£100 053679



691

This form must be completed for all 'Place of Business' registrations. (See note below for re-registration from a 'Branch')

This form should be completed in black.

Return and declaration delivered for registration of a place of business of an oversea company

(Pursuant to section 691 of the Companies Act 1985)

Previous branch number *(if applicable)*

For official use only FC22987

Company name: COPPER MOUNTAIN NETWORKS, INC.

Country of incorporation: UNITED STATES OF AMERICA

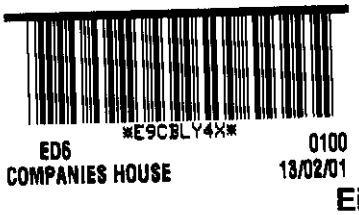
Address of place of business in Great Britain

LACON HOUSE, THEOBALD'S ROAD

Post town: LONDON

County / Region:

Postcode: WC1X 8RW



ED6 COMPANIES HOUSE 0100 13/02/01

Either

Constitution of the company
(See notes 1 and 2)
(A certified English translation must be included)

A certified copy of the
#
☑ Instrument(s) constituting or defining the constitution of the company; and

☐ A certified translation

* is / ~~are~~ delivered for registration

* *Delete as applicable*

\# *Mark appropriate box(es)*

OR

The company must deliver certified copies of its constitutional documents (with certifed translations), and the particulars of the company's directors and secretary.
However, if the company is closing a branch registration and effecting a place of business registration, it may rely on the documents or the particulars of the directors and secretary previously filed in that part of Great Britain, provided any relevant alterations to those documents have been updated on the register.

The
#
☐ The constitutional documents (and a certified translation*)

* and / or

☐ Particulars of the current directors and secretary(ies)

were previously delivered in respect of a branch of the company registered at this registry

Branch Number

© Crown copyright. Reproduced by permission of Controller of Her Majesty's Stationery Office. Published by Butterworths Tolley.

Directors *(See notes 3,4 and 5)*

Name

* Style/Title	CD Mr
Forenames	RICHARD
Surname	GILBERT
* Honours etc	
Previous forenames	
Previous surname	

Address

Usual residential address must be given. In the case of a corporation, give the registered or principal office address.

AD	2470 EMBARCADERO WAY
Post town	PALO ALTO
County / Region	CALIFORNIA
Postcode	94303
Country	USA
Date of birth	DO 0 6 1 0 1 9 5 2
Nationality	NA US CITIZEN
(See note 5) Business occupation (if any). If none other directorships.	OC PRESIDENT & CEO
	OD

Name

* Style/Title	CD Mr
Forenames	JOSEPH
Surname	MARKEE
* Honours etc	
Previous forenames	
Previous surname	

Address

Usual residential address must be given. In the case of a corporation, give the registered or principal office address.

AD	10145 PACIFIC HEIGHTS BLVD, #100
Post town	SAN DIEGO
County / Region	CALIFORNIA
Postcode	92121
Country	USA
Date of birth	DO 1 2 0 3 1 9 5 3
Nationality	NA US CITIZEN
(See note 5) Business occupation (if any). If none other directorships.	OC CHAIRMAN, CHIEF TECHNICAL OFFICER
	OD

* Voluntary details

© Crown copyright. Reproduced by permission of Controller of Her Majesty's Stationery Office. Published by Butterworths Tolley.

Directors *(See notes 3,4 and 5)*

Name

* Style/Title	CD
Forenames	JOHN
Surname	CREELMAN
* Honours etc	
Previous forenames	
Previous surname	

Address

Usual residential address must be given. In the case of a corporation, give the registered or principal office address.

AD 10145 PACIFIC HEIGHTS BLVD, #100

Post town SAN DIEGO

County / Region CALIFORNIA

Postcode 92121 Country USA

Date of birth DO 3 0 0 4 1 9 5 6 Nationality NA US CITIZEN

(See note 5) Business occupation (if any). If none other directorships. OC VP OF FINANCE, CFO & SECRETARY

OD

Name

* Style/Title	CD
Forenames	
Surname	
* Honours etc	
Previous forenames	
Previous surname	

Address

Usual residential address must be given. In the case of a corporation, give the registered or principal office address.

AD

Post town

County / Region

Postcode Country

Date of birth DO Nationality NA

(See note 5) Business occupation (if any). If none other directorships. OC

OD

* Voluntary details

© Crown copyright. Reproduced by permission of Controller of Her Majesty's Stationery Office. Published by Butterworths Tolley.

Company Secretary(ies)
(See notes 4 and 6)

Name

* Style/Title	CS Mr
Forenames	JOHN
Surname	CREELMAN
* Honours etc	
Previous forenames	
Previous surname	

Address

Usual residential address must be given. In the case of a corporation, give the registered or principal office address.

AD	10145 PACIFIC HEIGHTS BLVD, #100
Post town	SAN DIEGO
County / Region	CALIFORNIA
Postcode	92121
Country	USA

Name

* Style/Title	CS
Forenames	
Surname	
* Honours etc	
Previous forenames	
Previous surname	

Address

Usual residential address must be given. In the case of a corporation, give the registered or principal office address.

AD	
Post town	
County / Region	
Postcode	
Country	

Person(s) authorised

List of some one or more persons resident in Great Britain authorised to accept on the company's behalf services of process and any notice required to be served on it.

* Style/Title	Mr
Forenames	GUY
Surname	HEATH
Address	NABARRO NATHANSON SOLICITORS, LACON HOUSE,
	THEOBALD'S ROAD
Post town	LONDON
Country / Region	
Postcode	WC1X 8RW

* Voluntary details

© Crown copyright. Reproduced by permission of Controller of Her Majesty's Stationery Office. Published by Butterworths Tolley.

Person(s) authorised *(continued)*

List of some one or more persons resident in Great Britain authorised to accept on the company's behalf services of process and any notice required to be served on it.

* Style/Title

Forenames NONE

Surname

Address

Post town

Country / Region Postcode

* Style/Title

Forenames

Surname

Address

Post town

Country / Region Postcode

* Style/Title

Forenames

Surname

Address

Post town

Country / Region Postcode

* Style/Title

Forenames

Surname

Address

Post town

Country / Region Postcode

* Voluntary details

© Crown copyright. Reproduced by permission of Controller of Her Majesty's Stationery Office. Published by Butterworths Tolley.

Declaration *(See note 8)*

Full name and address

I Guy Heath

of (address) c/o Nabarro Nathanson Solicitors, Lacon House, Theobald's Road

London, WC1X 8RW

† *delete as applicable*

a † ~~director/~~ † ~~secretary/~~ † person authorised to accept on the company's behalf service of process or any notices required to be served on it, do solemnly and sincerely declare that the company established its place of business in Great Britain on

Day	Month	Year
0 6	1 1	2 0 0 0

(enter date)

and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declarations Act 1835.

Signed X

X 5 John Street

Declared at London WC1N 2HH

Day	Month	Year
0 6	0 2	2 0 0 1

on X

before me X (MELISSA HALL)

~~**A Commissioner for Oaths or Notary Public or Justice of the Peace or**~~ **Solicitor having the powers conferred on a Commissioner for Oaths.** *(See note 8)*

Number of continuation sheets attached

To whom should Companies House direct any enquiries about the information on this form?

ERNST & YOUNG (COMPANY SECRETARIAL GROUP (MAE))

400 CAPABILITY GREEN, LUTON, BEDFORDSHIRE

Postcode LU1 3LU

Telephone 01582 643000 Extension

Please ensure the form is fully completed and then send it to the Registrar of Companies at *(See note 9)*

Companies House, Crown Way, Cardiff CF14 3UZ
for companies establishing a place of business in England and Wales

Companies House, 37 Castle Terrace, Edinburgh EH1 2EB
for companies establishing a place of business in Scotland

© Crown copyright. Reproduced by permission of Controller of Her Majesty's Stationery Office. Published by Butterworths Tolley.

Notes

1 The copy of the instrument constituting or defining the constitution of the company must be certified in the place of incorporation of the company to be a true copy :-

(a) by an official of the Government to whose custody the original is committed; or

(b) by a notary public; or

(c) by an officer of the company on oath taken before:

(i) a person having authority in that place to administer an oath; or

(ii) any of the British officials mentioned in section 6 of the Commissioners for Oaths Act 1889.

2 The translation of the instrument must be certified to be a correct translation :-

(a) if the translation was made in the United Kingdom, by

(i) a notary public in any part of the United Kingdom;

(ii) a solicitor (if the translation was made in Scotland), a solicitor of the Supreme Court of Judicature of England and Wales (if it was made in England or Wales), or a solicitor of the Supreme Court of Judicature of Northern Ireland (if it was made in Northern Ireland); or

(iii) a person certified by a person mentioned above to be known to him to be competent to translate the document into English; or

(b) if the translation was made outside the United Kingdom, by

(i) a notary public;

(ii) a person authorised in the place where the translation was made to administer an oath;

(iii) any of the British officials mentioned in section 6 of the Commissioners for Oaths Act 1889;

(iv) a person certified by a person mentioned above to be known to him to be competent to translate the document into English.

3 'Director' includes any person who occupies the position of a director, by whatever name called.

4 Show for an individual the full forenames NOT INITIALS and surname together with any previous forenames or surname(s).

If the director or secretary is a corporation or Scottish firm - show the corporate or firm name on the surname line.

Give previous forenames or surname except that:

- for a married woman, the name by which she was known before marriage need not be given,
- names not used since the age of 18 or for at least 20 years need not be given.

In the case of a peer, or an individual usually known by a British title, you may state the title instead of or in addition to the forenames and surname and you need not give the name by which that person was known before he or she adopted the title or succeeded to it.

Address:

Give the usual residential address.

In the cases of a corporation or Scottish firm give the registered or principal office.

5 In the case of an individual who has a business occupation, this occupation should be named. In the case of an individual who has no business occupation but who holds other directorships, particulars should be given of them.

6 Where all the partners in a firm are joint secretaries, only the firm name and its principal office need be given.

7 Use photocopies of the relevant section(s) of this form to provide details of additional directors, joint secretaries or persons authorised.

8 If made in a foreign country the declaration may be made before any British official mentioned in section 6 of the Commissioners for Oaths Act 1889 or, before any person having authority to administer an oath in that country.

9 If the company establishes a place of business in England and Wales AND in Scotland whether at the same time or not a separate form must be sent to each Registrar.

© Crown copyright. Reproduced by permission of Controller of Her Majesty's Stationery Office. Published by Butterworths Tolley.

COPPER MOUNTAIN
High Performance DSL Networking

CERTIFICATION

I, John Creelman, Vice President and Chief Financial Officer of Copper Mountain Networks, Inc., a corporation duly organized and existing under the laws of the state of Delaware (USA), do hereby certify and declare the following:

1. Attached hereto is a true copy of the certified copy of the Amended and Restated Certificate of Incorporation of Copper Mountain Networks, filed with the Secretary of State of Delaware, Division of Corporations on April 9, 1999; and

2. Attached hereto is a true copy of the certified copy of the Second Amended and Restated Certificate of Incorporation of Copper Mountain Networks, filed with the Secretary of State of Delaware, Divisions of Corporations, on May 17, 1999.

SIGNED this 10th day of January, ~~2001~~, in San Diego, California.

John Creelman
Vice President & Chief Financial Officer
Copper Mountain Networks, Inc.

State of California

County of San Diego

On January 11, 2001, before me, Anne Chapman Forster, Notary Public

Personally appeared John Creelman

☒ personally known to me
☐ proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

ANNE CHAPMAN FORSTER
Commission # 1218687
Notary Public - California
San Diego County
My Comm. Expires May 9, 2003

Anne Chapman Forster
Signature of Notary Public

Copper Mountain Networks, Inc.
10145 Pacific Heights Boulevard, Suite 100
San Diego, CA 92121 USA
Tel: 1.858.410.7100 Fax: 1.858.410.7279
Web Site: www.coppermountain.com

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "COPPER MOUNTAIN NETWORKS, INC.", FILED IN THIS OFFICE ON THE NINTH DAY OF APRIL, A.D. 1999, AT 9 O'CLOCK A.M.

Edward J. Freel, Secretary of State

3005427 8100

991190646

AUTHENTICATION: 9743819

DATE: 05-13-99

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:00 AM 04/09/1999
991140484 – 3006527

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF COPPER MOUNTAIN NETWORKS, INC.

COPPER MOUNTAIN NETWORKS, INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, hereby certifies as follows:

1. The name of the corporation is Copper Mountain Networks, Inc.

2. The corporation's original Certificate of Incorporation was filed with the Secretary of State on February 19, 1999.

3. The Amended and Restated Certificate of Incorporation of this corporation, in the form attached hereto as Exhibit A, has been duly adopted by the Board of Directors and by the stockholders of the corporation in accordance with Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware.

4. The Amended and Restated Certificate of Incorporation so adopted reads in full as set forth in Exhibit A attached hereto and hereby incorporated by reference.

IN WITNESS WHEREOF, Copper Mountain Networks, Inc. has caused this Amended and Restated Certificate of Incorporation to be signed by its President and Chief Executive Officer and attested to by its Secretary this 8th day of April, 1999.

Richard Gilbert
President and Chief Executive Officer

ATTEST:

John Creelman
Secretary and Chief Financial Officer

150294 v2/SD
37y%021.DOC

Exhibit A

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF COPPER MOUNTAIN NETWORKS, INC.

I.

The name of this corporation is COPPER MOUNTAIN NETWORKS, INC.

II.

The address of the registered office of the corporation in the State of Delaware is 1013 Centre Road, City of Wilmington, County of New Castle, and the name of the registered agent of the corporation in the State of Delaware at such address is Corporation Service Company.

III.

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

IV.

A. This Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation is authorized to issue is 40,000,000 shares, each having a par value of one-tenth of one cent ($0.001). 29,397,536 shares shall be Common Stock, $0.001 par value, and 10,602,464 shares shall be Preferred Stock, $0.001 par value. The Preferred Stock may be issued from time to time in one or more series.

B. 2,773,000 of the authorized shares of Preferred Stock are hereby designated "Series A Preferred Stock."

C. 1,999,464 of the authorized shares of Preferred Stock are hereby designated "Series B Preferred Stock."

D. 2,530,000 of the authorized shares of Preferred Stock are hereby designated "Series C Preferred Stock."

E. 3,300,000 of the authorized shares of Preferred Stock are hereby designated "Series D Preferred Stock." The Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred stock are collectively referred to herein as the "Preferred Stock."

F. The rights, preferences, privileges and restrictions granted to or imposed upon the Common Stock and Preferred Stock are as follows:

1. DIVIDENDS.

a. The holders of the Preferred Stock shall be entitled, when and if declared by the Board of Directors of the Corporation, to dividends out of the retained earnings of the Corporation at the rate of the $0.08 per share of Series A Preferred Stock per annum, $0.27 per share of Series B Preferred Stock per annum, $0.38 per share of Series C Preferred Stock per annum and $0.62 per share of Series D Preferred Stock per annum. Dividends on the Preferred Stock shall be payable on a pari passu basis and in preference and prior to any payment of any dividend on the Common Stock of the Corporation. No dividends (other than those payable solely in the Common Stock of the Corporation) shall be paid on the Common Stock of the Corporation during any fiscal year of the Corporation until all declared dividends on the Preferred Stock are paid or set aside. The right to dividends on shares of the Common Stock or Preferred Stock shall not be cumulative, and no right shall accrue to holders of Common Stock or Preferred Stock by reason of the fact that dividends on said shares are not declared in any prior period.

In the event the Corporation shall declare a distribution (other than any distribution described in Section F.2) payable in securities of other persons, evidences of indebtedness issued by the Corporation or other persons, assets (excluding cash dividends) or options or rights to purchase any such securities or evidences of indebtedness, then, in each such case the holders of the Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Preferred Stock were the holders of the number of shares of Common Stock of the Corporation into which their respective shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such distribution.

2. LIQUIDATION PREFERENCE.

a. **Preference.** In the event of any liquidation, dissolution or winding up of the Corporation, either voluntarily or involuntarily, the holders of Preferred Stock shall be entitled to receive, on a pari passu basis and prior and in preference to any distribution of any of the assets or surplus funds of the Corporation to the holders of Common Stock of the Corporation, an amount equal to $1.00 per share of Series A Preferred Stock, $3.39 per share of Series B Preferred Stock, $4.75 per share of Series C Preferred Stock and $7.75 per share of Series D Preferred Stock, plus a further amount equal to any dividends declared but unpaid on such shares.

If upon such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation are insufficient to provide for the cash payment described above to the holders of Preferred Stock, then all of such assets shall be paid ratably among the holders of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock in proportion to the preferential amounts each such holder would have been entitled to receive pursuant to this Section 2(a) if such distribution had been sufficient to permit the full payment of such preferential amounts.

After the payment or setting apart of payment to the holders of Preferred Stock of the preferential amounts so payable to them, the holders of Common Stock shall be entitled to receive pro rata the remaining assets of the Corporation.

b. **Consolidation or Merger.** Any of the following shall be deemed to be a liquidation, dissolution or winding up within the meaning of this Section 2:

(i) any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation) which will result in the Corporation's shareholders immediately prior to such transaction not holding (by virtue of such shares or securities issued solely with respect thereto) at least 50% of the voting power of the surviving or continuing entity;

(ii) a sale of all or substantially all of the assets of the Corporation, unless the Corporation's shareholders immediately prior to such sale will, as a result of such sale, hold (by virtue of securities issued as consideration for the Corporation's sale) at least 50% of the voting power of the purchasing entity; or

(iii) any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary.

c. **Noncash Distributions.** If any of the assets of the Corporation are to be distributed other than in cash under this Section 2 or for any purpose, then the Board of Directors of the Corporation shall promptly engage independent competent appraisers to determine the value of the assets to be distributed to the holders of Preferred Stock or Common Stock. The Corporation shall, upon receipt of such appraiser's valuation, give prompt written notice to each holder of shares of Preferred Stock or Common Stock of the appraiser's valuation.

d. **Consent for Certain Repurchases.** Each holder of an outstanding share of Preferred Stock shall be deemed to have consented, for purposes of applicable laws, to distributions made by the Corporation in connection with the repurchase of shares of Common Stock (at a price no greater than the original issuance price thereof) issued to or held by employees or consultants upon termination of their employment or services pursuant to agreements approved by the Board of Directors providing for the right of said repurchase between the Corporation and such persons.

e. **Notice to Holders of Preferred Stock.** Written notice of any such liquidation, dissolution or winding up, stating a payment date, the place where such payment shall be made, an estimate of the net value that would be received by each such holder of Preferred Stock if all such holders converted all of their Preferred Stock immediately prior to such liquidation, dissolution or winding up of the Corporation, and containing a statement of or reference to applicable conversion rights, shall be given by first-class mail, postage prepaid, not less than thirty (30) days prior to the payment date stated therein, to each holder of record of Preferred Stock at such holder's address as shown in the records of the Corporation.

3. CONVERSION. The holders of the Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

a. **Right to Convert.**

(i) Each share of Series A Preferred Stock shall be convertible, without payment of any additional consideration by the holder thereof and at the option of such holder, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such share, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $1.00 by the Series A Conversion Price, determined as hereinafter provided, in effect at the time of conversion. The conversion price for the Series A Preferred Stock (the "Series A Conversion Price") shall initially be $.66666. Such initial Series A Conversion Price shall be subject to adjustment, as hereinafter provided. The number of shares of Common Stock into which a share of Series A Preferred Stock is convertible is hereinafter referred to as the "Series A Conversion Rate."

(ii) Each share of Series B Preferred Stock shall be convertible, without payment of any additional consideration by the holder thereof and at the option of such holder, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such share, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $3.39 by the Series B Conversion Price, determined as hereinafter provided, in effect at the time of conversion. The conversion price for the Series B Preferred Stock (the "Series B Conversion Price") shall initially be $2.26. Such initial Series B Conversion Price shall be subject to adjustment, as hereinafter provided. The number of shares of Common Stock into which a share of Series B Preferred Stock is convertible is hereinafter referred to as the "Series B Conversion Rate."

(iii) Each share of Series C Preferred Stock shall be convertible, without payment of any additional consideration by the holder thereof and at the option of such holder, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such share, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $4.75 by the Series C Conversion Price, determined as hereinafter provided, in effect at the time of conversion. The conversion price for the Series C Preferred Stock (the "Series C Conversion Price") shall initially be $3.1667. Such initial Series C Conversion Price shall be subject to adjustment, as hereinafter provided. The number of shares of Common Stock into which a share of Series C Preferred Stock is convertible is hereinafter referred to as the "Series C Conversion Rate."

(iv) Each share of Series D Preferred Stock shall be convertible, without payment of any additional consideration by the holder thereof and at the option of such holder, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such share, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $7.75 by the Series D Conversion Price, determined as hereinafter provided, in effect at the time of conversion. The conversion price for the Series D Preferred Stock (the "Series D Conversion Price") shall initially be $5.1667. Such initial Series D Conversion Price shall be subject to adjustment, as hereinafter provided. The number of shares of Common Stock into which a share of Series D Preferred Stock is convertible is hereinafter referred to as the "Series D Conversion Rate."

b. **Automatic Conversion.**

(i) Each share of Series A and Series B Preferred Stock shall automatically be converted into shares of Common Stock at its then effective Conversion Rate immediately upon the closing of a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock, the aggregate gross proceeds of which equal or exceed $5,000,000 at a per share issuance price of at least $3.34 per share (as adjusted for stock splits, stock dividends, subdivisions, reclassifications, reorganizations, or other similar transactions).

(ii) Each share of Series C Preferred Stock shall automatically be converted into shares of Common Stock at its then effective Conversion Rate immediately upon the closing of a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock, the aggregate gross proceeds of which equal or exceed $10,000,000 at a per share issuance price of at least $6.34 per share (as adjusted for stock splits, stock dividends, subdivisions, reclassifications, reorganizations, or other similar transactions).

(iii) Each share of Series D Preferred Stock shall automatically be converted into shares of Common Stock at its then effective Conversion Rate immediately upon the closing of a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock, the aggregate gross proceeds of which equal or exceed $20,000,000 at a per share issuance price of at least $8.00 per share (as adjusted for stock splits, stock dividends, subdivisions, reclassifications, reorganizations, or other similar transactions) if the closing of such public offering occurs on or before March 30, 2000 and at a per share issuance price of at least $10.34 per share (as adjusted for stock splits, stock dividends, subdivisions, reclassifications, reorganizations, or other similar transactions) if the closing of such public offering occurs after March 30, 2000.

(iv) Each share of Series A Preferred Stock shall automatically be converted into shares of Common Stock at its then effective Conversion Rate immediately upon the Corporation's receipt of the written consent or vote of holders of more than two-thirds of the then outstanding shares of Series A Preferred Stock.

(v) Each share of Series B Preferred Stock shall automatically be converted into shares of Common Stock at its then effective Conversion Rate immediately upon the Corporation's receipt of the written consent or vote of holders of more than two-thirds of the then outstanding shares of Series B Preferred Stock.

(vi) Each share of Series C Preferred Stock shall automatically be converted into shares of Common Stock at its then effective Conversion Rate immediately upon the Corporation's receipt of the written consent or vote of holders of more than two-thirds of the then outstanding shares of Series C Preferred Stock.

(vii) Each share of Series D Preferred Stock shall automatically be converted into shares of Common Stock at its then effective Conversion Rate immediately

upon the Corporation's receipt of the written consent or vote of holders of more than a majority of the then outstanding shares of Series D Preferred Stock.

c. **Mechanics of Conversion.** Before any holder of Preferred Stock shall be entitled to convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Preferred Stock and shall give written notice to the Corporation at such office that he elects to convert the same (except that no such written notice of election to convert shall be necessary in the event of an automatic conversion pursuant to Section 3.b. hereof). The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock a certificate or certificates for the number of shares of Common Stock to which he shall be entitled as aforesaid and a check payable to such holder in the amount of any declared but unpaid dividends on the converted Preferred Stock to which the holder may be entitled. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted (except that in the case of an automatic conversion pursuant to Sections 3.b.(i), 3.b.(ii) or 3.b.(iii) hereof, such conversion shall be deemed to have been made immediately prior to the closing of the offering referred to in Sections 3.b.(i), 3.b.(ii) and 3.b.(iii)) and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

d. **Adjustments to Conversion Price for Diluting Issues.**

(i) **Special Definitions.** For purposes of this Section 3, the following definitions shall apply:

(a) **"Option"** shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities.

(b) **"Series D Original Issue Date"** shall mean the date on which a share of Series D Preferred Stock was first issued.

(c) **"Convertible Securities"** shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock.

(d) **"Additional Shares of Common Stock"** shall mean all shares of Common Stock issued (or, pursuant to Section 3.d.(iii), deemed to be issued) by the Corporation after the Series D Original Issue Date, other than:

(1) shares of Common Stock issued or issuable upon conversion of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock authorized herein;

(2) shares of Common Stock issued or issuable to officers, directors or employees of, or consultants to, the Corporation pursuant to a stock grant or option plan or other employee stock incentive program approved by the Board of Directors;

(3) up to 50,000 shares of Series A Preferred Stock, up to 147,401 shares of Series B Preferred Stock and up to 39,737 shares of Series C Preferred Stock issuable upon the exercise of warrants outstanding on the date of filing hereof;

(4) shares of Common Stock issued or issuable in connection with commercial lending arrangements, equipment leases, venture leasing arrangements or similar transactions on terms approved by the Board of Directors;

(5) up to 100,000 shares of Common Stock issued or issuable in connection with corporate partnering arrangements, joint ventures, technology licensing, and strategic alliances with the Company's suppliers, vendors, distributors or customers on terms approved by the Board of Directors;

(6) shares of Common Stock issued or issuable as a dividend or distribution on the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock (provided that such dividend is paid on all such series of Preferred Stock in proportion to the number of shares of Common Stock issuable upon conversion thereof), or any event for which adjustment is made pursuant to Sections 3.e. or 3.f. hereof; or

(7) shares of Common Stock issued or issuable by way of dividend or other distribution on shares excluded from the definition of Additional Shares of Common Stock by the foregoing clauses (1) through (6) or this clause (7) or on shares of Common Stock so excluded.

(ii) **No Adjustment of Conversion Price.** No adjustment in the Conversion Price of a particular share of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Series D Preferred Stock, respectively, shall be made in respect of the issuance of Additional Shares of Common Stock unless the consideration per share for an Additional Share of Common Stock issued or deemed to be issued by the Corporation is less than the Series A Conversion Price, the Series B Conversion Price, the Series C Conversion Price or the Series D Conversion Price, respectively, in effect on the date of, and immediately prior to, the issue of such Additional Share of Common Stock.

(iii) **Issue of Securities Deemed Issue of Additional Shares of Common Stock.**

(a) **Options and Convertible Securities.** In the event the Corporation at any time or from time to time after the Series D Original Issue Date shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that such

shares would not otherwise be excluded from the definition of "Additional Shares of Common Stock" by Sections 3.d.(i)(d)(1), (2), (3), (4), (5), (6) and (7) above, provided further that, in any such case in which Additional Shares of Common Stock are deemed to be issued:

(1) no further adjustment in the applicable Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or the conversion or exchange of such Convertible Securities;

(2) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase in the consideration payable to the Corporation, or decreases in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the applicable Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities; *provided, however*, that no readjustment pursuant to the foregoing clause shall have the effect of increasing the applicable Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price to an amount which exceeds the lower of (i) such Conversion Price on the original adjustment date (prior to such adjustment), or (ii) such Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date (without giving effect for such original adjustment); and

(3) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any decrease in the consideration payable to the Corporation, or increases in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the applicable Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such decrease or increase becoming effective, be recomputed to reflect such decrease or increase insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities; *provided, however*, that no readjustment pursuant to the foregoing clause shall have the effect of decreasing the applicable Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price to an amount which exceeds the greater of (i) such Conversion Price on the original adjustment date (prior to such adjustment), or (ii) such Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date (without giving effect for such original adjustment).

(iv) **Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock.** In the event this Corporation shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued

pursuant to Section 3.d.(iii)) without consideration or for a consideration per share less than the applicable Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price in effect on the date of and immediately prior to such issue, then and in such event, such Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price, as applicable, shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price, as applicable; and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common Stock so issued; and provided further that, for the purposes of this Section 3.d.(iv), all shares of Common Stock issuable upon exercise or conversion of outstanding Options and Preferred Stock shall be deemed to be outstanding, and immediately after any Additional Shares of Common Stock are deemed issued pursuant to Section 3.d.(iii), such Additional Shares of Common Stock shall be deemed to be outstanding.

(v) **Determination of Consideration.** For purposes of this Section 3.d., the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(a) **Cash and Property.** *Such consideration shall:*

(1) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(2) *insofar as it consists of property other than* cash, be computed at the fair value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(3) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (1) and (2) above, as determined in good faith by the Board of Directors.

(b) **Options and Convertible Securities.** The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 3.d.(iii)(a), relating to Options and Convertible Securities, shall be determined by dividing:

(1) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the

instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(2) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

e. **Adjustment for Stock Splits, Dividends and Combinations.** If the Corporation shall at any time or from time to time effect a subdivision of the outstanding Common Stock, or shall issue a dividend of Common Stock on its outstanding Common Stock, the Conversion Price for each series of Preferred Stock then in effect immediately before that subdivision or dividend shall be proportionately decreased, and conversely, if the Corporation shall combine the outstanding shares of Common Stock, the Conversion Price for each series of Preferred Stock then in effect immediately before the combination shall be proportionately increased. Any adjustment under this Section 3.e. shall become effective at the close of business on the date the subdivision or combination becomes effective or on the date on which the dividend is declared.

f. **Adjustments for Other Dividends and Distributions.** In the event the Corporation at any time or from time to time shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in securities of the Company other than shares of Common Stock, then and in each such event the holders of Preferred Stock shall receive at the time of payment of such dividend or other distribution, the amount of securities of the Company that they would have received pursuant to such dividend or distribution had their Preferred Stock been converted into Common Stock on the date of such event.

g. **Adjustment for Reclassification, Exchange and Substitution.** If the Common Stock issuable upon the conversion of the Preferred Stock shall be changed into the same or different number of shares of any class or series of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares or stock dividend, provided for in Section 3.e. above, or a merger, consolidation, sale of assets or other transaction provided for in Section 2 above), then and in each such event the holder of each share of Preferred Stock shall have the right thereafter to convert such share into the kind and amount of shares of stock and other securities and property receivable upon such reorganization, reclassification or other change by holders of the number of shares of Common Stock into which such shares of Preferred Stock might have been converted immediately prior to such reorganization, reclassification or change, all subject to further adjustment as provided herein.

h. **Calculations.** All calculations under this Section 3 shall be made to the nearest cent or to the nearest one hundredth (1/100) of a share, as the case may be.

i. **Minimal Adjustments.** No adjustment in the Conversion Price for any series of Preferred Stock need be made if such adjustment would result in a change in the Conversion Price for such series of Preferred Stock of less than $0.01. Any adjustment of less than $0.01 which is not made shall be carried forward and shall be made at the time of and together with any subsequent adjustment which, on a cumulative basis, amounts to an adjustment of $0.01 or more in the Conversion Price for such series of Preferred Stock.

j. **No Impairment.** The Corporation will not through any amendment of these Amended and Restated Articles of Incorporation, amendment of its Bylaws, reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 3 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of Preferred Stock against impairment.

k. **Certificate as to Adjustments.** Upon the occurrence of each adjustment or readjustment of the Conversion Rate for each series of Preferred Stock pursuant to this Section 3, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Preferred Stock a certificate executed by its Chief Executive Officer or Chief Financial Officer, setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) all such adjustments and readjustments, (ii) the Conversion Rate for each series of Preferred Stock at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of such holder's shares of Preferred Stock.

l. **Fractional Shares.** No fractional share shall be issued upon the conversion of any share or shares of Preferred Stock. If the conversion would result in the issuance of a fraction of a share of Common Stock, the Corporation shall, in lieu of issuing any fractional share, pay the holder otherwise entitled to such fraction a sum in cash equal to the fair market value of such fraction on the date of conversion (as determined in good faith by the Board of Directors of the Corporation).

m. **Notices of Record Date.** In the event of any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property or to receive any other right, the Corporation shall mail to each holder of Preferred Stock at least 20 days prior to such record date, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution or right, and the amount and character of such dividend, distribution or right.

n. **Issue Taxes.** The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issue or delivery of shares of Common Stock

on conversion of shares of Preferred Stock pursuant hereto; *provided, however*, that the Corporation shall not be obligated to pay any transfer taxes resulting from any transfer requested by any holder in connection with any such conversion.

o. **Common Stock Reserved.** The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of effecting the conversion of the shares of Preferred Stock such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

p. **Notices.** Any notice required by the provisions of this Section 3 to be given to the holder of shares of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

q. **Reissuance of Converted Shares.** No shares of Preferred Stock which have been converted into Common Stock after the original issuance thereof shall ever again be reissued and all such shares so converted shall upon such conversion cease to be a part of the authorized shares of the Corporation.

4. **VOTING RIGHTS.** The holder of each share of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which each share of Preferred Stock could be converted on the record date for the vote or written consent of shareholders and, except as otherwise required by law, shall have voting rights and powers equal to the voting rights and powers of Common Stock. The holder of each share of Preferred Stock shall be entitled to notice of any shareholders' meeting in accordance with the bylaws of the Corporation and shall vote with holders of Common Stock upon the election of directors and upon any other matter submitted to a vote of shareholders, except those matters required by law to be submitted to a class vote. Fractional votes shall not, however, be permitted and any fractional voting rights resulting from the above formula (after aggregating all shares of Common Stock into which shares of Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half rounded upward to one).

5. **PROTECTIVE PROVISIONS.**

a. In addition to any other class vote that may be required by law, so long as any series of Preferred Stock shall be outstanding, the Corporation shall not without obtaining the approval (by vote or written consent, as provided by law) of the holders of more than 50% of the outstanding shares of the Preferred Stock, voting together as a single class (on an as-converted to Common Stock basis):

(i) increase the authorized number of shares of any class or series of the Corporation's capital stock;

(ii) create any new class or series of shares having preferences or priorities (including, without limitation, with regard to dividends, liquidation and voting) superior to or on parity with any outstanding series of the Preferred Stock;

(iii) reclassify any outstanding shares into shares having preferences or priorities (including, without limitation, with regard to dividends, liquidation and voting) superior to or on parity with any outstanding series of the Preferred Stock;

(iv) amend the Corporation's Articles of Incorporation or Bylaws to adversely affect the rights, preferences or privileges of any outstanding series of the Preferred Stock;

(v) repurchase or redeem any outstanding shares of Common Stock or of the Preferred Stock except as contemplated by Section 2.d. hereof; *provided, however*, that with respect to any repurchase or redemption of shares of Preferred Stock, any approval required hereunder shall include the approval of holders of more than 50% of the outstanding shares of Series D Preferred Stock voting together as a single series; or

(vi) change the authorized number of Directors on the Board from the current range of five (5) to nine (9).

b. Except as otherwise required by law, so long as any of the Preferred Stock shall be outstanding, the Corporation shall not without obtaining the approval (by vote or written consent, as provided by law) of the holders of more than 66 2/3% of the outstanding shares of the Preferred Stock voting together as a single class (on an as-converted to Common Stock basis): effect any sale, material encumbrance or other conveyance of all or substantially all of the assets of the Corporation (excluding any security interest or other encumbrance in favor of a commercial lending institution or similar entity in connection with commercial lending arrangements, equipment leases, venture leasing arrangements or similar transactions on terms approved by the Board of Directors but including any grant of an exclusive license to all or substantially all of the intellectual property owned by the Corporation) or any consolidation or merger involving the Corporation or its subsidiaries if the shareholders of the Corporation immediately prior to such consolidation or merger shall not represent a majority of the voting power of the outstanding stock of the continuing or surviving entity of such consolidation or merger following such consolidation or merger; *provided, however*, that if any such transaction pursuant to this Section 5b. results in a per share price to holders of the Series D Preferred Stock of less than $8.00 per share if the closing of such transaction occurs on or before March 30, 2000, or a per share price to holders of the Series D Preferred Stock of less than $10.34 per share if the closing of such transaction occurs after March 30, 2000, any approval required hereunder shall include the approval of holders of more than 50% of the outstanding shares of Series D Preferred Stock voting together as a single series.

c. In addition to any other class vote that may be required by law, so long as any of the Series A Preferred Stock shall be outstanding, the Corporation shall not without obtaining the approval (by vote or written consent, as provided by law) of the holders of more than 50% of the outstanding shares of Series A Preferred Stock:

(i) amend the Company's Articles of Incorporation or Bylaws to adversely affect solely the rights, preferences or privileges of the Series A Preferred Stock; or

(ii) increase or decrease the authorized number of shares of Series A Preferred Stock.

d. In addition to any other class vote that may be required by law, so long as any of the Series B Preferred Stock shall be outstanding, the Corporation shall not without obtaining the approval (by vote or written consent, as provided by law) of the holders of more than 50% of the outstanding shares of Series B Preferred Stock:

(i) amend the Company's Articles of Incorporation or Bylaws to adversely affect solely the rights, preferences or privileges of the Series B Preferred Stock; or

(ii) increase or decrease the authorized number of shares of Series B Preferred Stock.

e. In addition to any other class vote that may be required by law, so long as any of the Series C Preferred Stock shall be outstanding, the Corporation shall not without obtaining the approval (by vote or written consent, as provided by law) of the holders of more than 50% of the outstanding shares of Series C Preferred Stock:

(i) amend the Company's Articles of Incorporation or Bylaws to adversely affect solely the rights, preferences or privileges of the Series C Preferred Stock; or

(ii) increase or decrease the authorized number of shares of Series C Preferred Stock.

f. In addition to any other class vote that may be required by law, so long as any of the Series D Preferred Stock shall be outstanding, the Corporation shall not without obtaining the approval (by vote or written consent, as provided by law) of the holders of more than 50% of the outstanding shares of Series D Preferred Stock:

(i) amend the Company's Articles of Incorporation or Bylaws to adversely affect solely the rights, preferences or privileges of the Series D Preferred Stock; or

(ii) increase or decrease the authorized number of shares of Series D Preferred Stock.

V.

For the management of the business and for the conduct of the affairs of the corporation, and in further definition, limitation and regulation of the powers of the corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A.

1. The management of the business and the conduct of the affairs of the corporation shall be vested in its Board of Directors. Subject to the rights of the holders of any series of Preferred Stock, the number of directors which shall constitute the whole Board of Directors shall be fixed exclusively by one or more resolutions adopted by the Board of Directors.

2. a. Directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Each director shall hold office either until the expiration of the term for which elected or appointed and until a successor has been elected and qualified, or until such director's death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

b. No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the corporation is subject to Section 2115(b) of the California General Corporation Law (" CGCL") and is not a "listed" corporation or ceases to be a "listed" corporation under Section 301.5 of the CGCL. During this time, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder thinks fit. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

3. Subject to the rights of the holders of any series of Preferred Stock, the Board of Directors or any individual director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all the then outstanding shares of voting stock of the corporation, entitled to vote at an election of directors (the "Voting Stock") or (ii) without cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all the then-outstanding shares of the Voting Stock.

4. Subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full

term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

B.

1. Subject to paragraph (h) of Section 42 of the Bylaws, the Bylaws may be altered or amended or new Bylaws adopted by the affirmative vote of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock. The Board of Directors shall also have the power to adopt, amend, or repeal Bylaws.

2. The directors of the corporation need not be elected by written ballot unless the Bylaws so provide.

3. No action shall be taken by the stockholders of the corporation except by written consent to the extent provided for in the Bylaws or at an annual or special meeting of stockholders called in accordance with the Bylaws; and following the closing of the Initial Public Offering no action shall be taken by the stockholders by written consent.

4. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the corporation shall be given in the manner provided in the Bylaws of the corporation.

VI.

A. A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

B. Any repeal or modification of this Article VI shall be prospective and shall not affect the rights under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

A. The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in Section VII.B., and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any

affirmative vote of the holders of any particular class or series of the Voting Stock required by law, this Certificate of Incorporation or any document relating thereto filed with the Delaware Secretary of State, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, and VII.

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "COPPER MOUNTAIN NETWORKS, INC.", FILED IN THIS OFFICE ON THE SEVENTEENTH DAY OF MAY, A.D. 1999, AT 9 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE KENT COUNTY RECORDER OF DEEDS.

Edward J. Freel, Secretary of State

3005427 8100

AUTHENTICATION: 9746654

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:00 AM 05/17/1999
991194000 - 3005427

SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

COPPER MOUNTAIN NETWORKS, INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, hereby certifies as follows:

1. The name of the corporation is Copper Mountain Networks, Inc.

2. The corporation's original Certificate of Incorporation was filed with the Secretary of State on February 19, 1999.

3. The Second Amended and Restated Certificate of Incorporation of this corporation, in the form attached hereto as Exhibit A, has been duly adopted by the Board of Directors and by the stockholders of the corporation in accordance with Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware.

4. The Second Amended and Restated Certificate of Incorporation so adopted reads in full as set forth in Exhibit A attached hereto and hereby incorporated by reference.

IN WITNESS WHEREOF, Copper Mountain Networks, Inc. has caused this Second Amended and Restated Certificate of Incorporation to be signed by its President and Chief Executive Officer and attested to by its Secretary this 13th day of May, 1999.

Richard L. Gilbert
Richard Gilbert
President and Chief Executive Officer

ATTEST:

John A. Creelman
Secretary

150291 v2/SD
37yr021.DOC

Exhibit A

SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF COPPER MOUNTAIN NETWORKS, INC.

I.

The name of this corporation is COPPER MOUNTAIN NETWORKS, INC.

II.

The address of the registered office of the corporation in the State of Delaware is 9 East Loockerman Street, City of Dover, County of Kent, and the name of the registered agent of the corporation in the State of Delaware at such address is National Registered Agents. Inc.

III.

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

IV.

A. This corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the corporation is authorized to issue is one hundred five million (105,000,000) shares. One hundred million (100,000,000) shares shall be Common Stock, each having a par value of one-tenth of one cent ($.001). Five million (5,000,000) shares shall be Preferred Stock, each having a par value of one-tenth of one cent ($.001).

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby authorized, by filing a certificate (a "Preferred Stock Designation") pursuant to the Delaware General Corporation Law, to fix or alter from time to time the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions of any wholly unissued series of Preferred Stock, and to establish from time to time the number of shares constituting any

such series or any of them; and to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

V.

For the management of the business and for the conduct of the affairs of the corporation, and in further definition, limitation and regulation of the powers of the corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A.

1. The management of the business and the conduct of the affairs of the corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed exclusively by one or more resolutions adopted by the Board of Directors.

2. a. Directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Each director shall hold office either until the expiration of the term for which elected or appointed and until a successor has been elected and qualified, or until such director's death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

b. No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the corporation is subject to Section 2115(b) of the California General Corporation Law (" CGCL") and is not a "listed" corporation or ceases to be a "listed" corporation under Section 301.5 of the CGCL. During this time, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder thinks fit. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate

their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

3. Subject to the rights of the holders of any series of Preferred Stock, the Board of Directors or any individual director may be removed from office at any time (ii) with cause by the affirmative vote of the holders of a majority of the voting power of all the then outstanding shares of voting stock of the corporation, entitled to vote at an election of directors (the "Voting Stock") or (ii) without cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all the then-outstanding shares of the Voting Stock.

4. Subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

B.

1. Subject to paragraph (h) of Section 42 of the Bylaws, the Bylaws may be altered or amended or new Bylaws adopted by the affirmative vote of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock. The Board of Directors shall also have the power to adopt, amend, or repeal Bylaws.

2. The directors of the corporation need not be elected by written ballot unless the Bylaws so provide.

3. No action shall be taken by the stockholders of the corporation except by written consent to the extent provided for in the Bylaws or at an annual or special meeting of stockholders called in accordance with the Bylaws; and following the closing of the Initial Public Offering no action shall be taken by the stockholders by written consent.

4. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the

stockholders of the corporation shall be given in the manner provided in the Bylaws of the corporation.

VI.

A. A director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

B. Any repeal or modification of this Article VI shall be prospective and shall not affect the rights under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

A. The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in Section VII.B., and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Voting Stock required by law, this Certificate of Incorporation or any Preferred Stock Designation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, and VII.

FILE COPY

CERTIFICATE OF REGISTRATION

OF AN OVERSEA COMPANY

(Establishment of a place of business)

Company No. FC022987

The Registrar of Companies for England and Wales hereby certifies that

COPPER MOUNTAIN NETWORKS, INC.

has this day been registered under Section 691 of the Companies Act 1985 as having established a place of business in England and Wales

Given at Companies House, Cardiff, the 13th February 2001

A. F. FLETCHER

For The Registrar Of Companies

COMPANIES HOUSE