

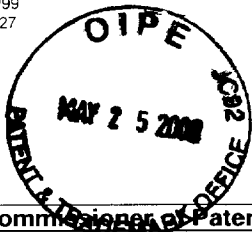
MRD 5-25-00

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FORM PTO-1619A
Expires 06/30/99
OMB 0651-0027

U.S. Department of Commerce
Patent and Trademark Office
PATENT

05-31-2000



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PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

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Conveyance Type

Assignment Security Agreement

License Change of Name

Merger Other _____

U.S. Government
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Departmental File Secret File

Conveying Party(ies)

Mark if additional names of conveying parties attached

Name (line 1) Spire Corporation Execution Date Month Day Year 12 29 99

Name (line 2) _____

Second Party

Name (line 1) _____ Execution Date Month Day Year _____

Name (line 2) _____

Receiving Party

Mark if additional names of receiving parties attached

Name (line 1) Methode Massachusetts, LLC Now known as _____

Name (line 2) Bandwidth Semiconductor, LLC

Address (line 1) 40 Wiggins Avenue

Address (line 2) _____

Address (line 3) Bedford MA 01730
City State/Country Zip Code

If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name _____

Address (line 1) _____

Address (line 2) _____

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

PATENT
REEL: 010822 FRAME: 0062

Correspondent Name and Address

Area Code and Telephone Number

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

Pages Enter the total number of pages of the attached conveyance document including any attachments. #

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

<input type="text" value="08/523,694"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="08/949,015"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>

<input type="text" value="4,604,292"/>	<input type="text" value="5,231,298"/>	<input type="text" value="5,457,356"/>
<input type="text" value="5,104,690"/>	<input type="text" value="5,272,355"/>	<input type="text" value="5,436,499"/>
<input type="text" value="5,116,455"/>	<input type="text" value="5,440,187"/>	<input type="text" value="5,671,914"/>
<input type="text" value="5,260,621"/>	<input type="text" value="5,452,118"/>	<input type="text" value="5,726,440"/>
<input type="text" value="6,010,937"/>	<input type="text"/>	<input type="text"/>

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor. Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number only if a U.S. Application Number has not been assigned.

PCT PCT PCT
PCT PCT PCT

Number of Properties Enter the total number of properties involved. #

Fee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$

Method of Payment: Enclosed Deposit Account

Deposit Account (Enter for payment by deposit account or if additional fees can be charged to the account.)

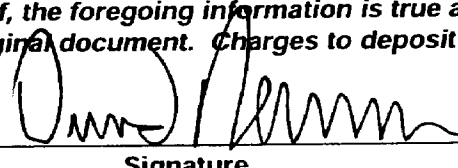
Deposit Account Number: #

Authorization to charge additional fees: Yes No

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. Charges to deposit account are authorized, as indicated herein.

David L. Newman
Name of Person Signing



Signature

5/22/00
Date

PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT ("Assignment") is made as of December 29, 1999 by Spire Corporation, a Massachusetts corporation ("Assignor"), to Methode Massachusetts, LLC., a Delaware limited liability company ("Assignee").

RECITALS:

WHEREAS, Assignor's optoelectronics business conducts, both under contract and on a commercial merchant basis, research, development and production of compound semi-conductor wafers and devices processed from semi-conductor wafers (the "Optoelectronics Business").

WHEREAS, Assignor owns and is using in the Optoelectronics Business the United States patents, patent applications, patent disclosures and inventions (whether or not patentable and whether or not reduced to practice) disclosed in Exhibit A attached hereto and made a part hereof (the "Patents");

WHEREAS, Methode Electronics, Inc., Assignee and Assignor have entered into that certain Asset Purchase Agreement dated as of November 18, 1999 (the "Purchase Agreement"), which provides for the purchase by Assignee of substantially all of the assets of the Optoelectronics Business, including the Patents.

NOW, THEREFORE, in consideration of the purchase price set forth in the Purchase Agreement, the mutual promises contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby expressly acknowledged, the parties agree as follows:

1. Assignor hereby sells, assigns, conveys and transfers unto Assignee all right, title and interest in, to and under the Patents together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of the Patents and all rights and privileges granted and secured thereby, including, without limitation, the right to sue and recover for any past or continuing infringement of the Patents, as well as the right to seek any and all remedies available at law or in equity.
2. All right, title and interest in the Patents shall be held and enjoyed by Assignee, for its own use and benefit and for the use and benefit of its successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor if this Assignment had not been made. Without limitation to the foregoing, Assignor assigns with the Patents all associated income, royalties, damages and payments due from or payable by any third party (including, without limitation, damages and payments for past, present, or future infringements or misappropriations thereof) and any and all corresponding rights that, now or hereafter, may be secured throughout the world.
3. The Assignor hereby represents and warrants: (a) that it is the lawful owner of the Patents; (b) that it has full right to convey the entire right, title and interest in the Patents herein assigned; and (c) that no person, company, or firm has given notice of, or asserted or claimed that any of the Patents is invalid or unenforceable by the Assignor.



**EXHIBIT A
PATENTS ISSUED AND PENDING**

NUMBER	PATENT TITLE
4,604,292	X-ray Mask Blank Process
5,104,690	CVD Thin Film Compounds
5,116,455	Process of Making Strain Free Carbon Doped Epitaxial Layers and Products so Made
5,260,621	High Energy Density Nuclide-emitter Voltaic Junction Battery
5,231,298	GaAs Device Having a Strain Free Carbon-doped Layer
5,272,355	Optoelectronic Switching and Display Device and Method
5,440,187	Long Life Radioisotope-powered Voltaic Junction Using Radiation Resistant Materials
5,452,118	Optical Heterodyne Receiver for Fiber Optic Communications Systems (Indium Phosphide Version)
5,457,356	Flat Panel Display and Process
5,436,499	High Performance GaAs Devices and Methods
5,671,914	Multi-band Spectroscopic Photodetector
08/523,694	Reduction of Dislocations in a Heteroepitaxial Semiconductor Structure
5,726,440	Wavelength Selective Photodetector
08/949,015	Semiconductor P-I-N Detector and Method of Manufacturing the Detector
08/780,724	Very High Pressure MOCVD/CVD Reaction Chamber

AS of 1-4-00
6,010,937 →



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 CERTIFICATE OF AMENDMENT OF "METHODE MASSACHUSETTS, LLC", CHANGING ITS NAME FROM "METHODE MASSACHUSETTS, LLC" TO "BANDWIDTH SEMICONDUCTOR, LLC", FILED IN THIS OFFICE ON THE SIXTH DAY OF JANUARY, A.D. 2000, AT 12:30 O'CLOCK P.M.



Edward J. Freel

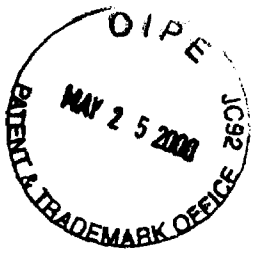
Edward J. Freel, Secretary of State

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AUTHENTICATION: 0187626
DATE: 01-07-00

PATENT
REEL: 010822 FRAME: 0067



Certificate of Amendment to Certificate of Formation
of
Methode Massachusetts, LLC

It is hereby certified that:

1. The name of the limited liability company (hereinafter called the "limited liability company") is Methode Massachusetts, LLC.

2. The certificate of formation of the limited liability company is hereby amended by striking out Article FIRST thereof and by substituting in lieu of said Article the following new Article:

"FIRST: The name of the Company is: Bandwidth Semiconductor, LLC."

Executed on January 5, 2000

Methode Electronics, Inc.

By: 
James W. Ashley, Jr., Secretary

Member of Methode Massachusetts, LLC