07-3	1-2002
/ <b>/////</b> //////////////////////////////	
100.	PATENT
	3568 CNF-001
	ORM COVER SHEFT
PATEN	TS ONLY
TO: Commissioner of Patents and Trademarks: Please re	ecord the attached original document(s) or copy(ies).
Submission Type ⊠ New 7.30.02	Conveyance Type
Resubmission (Non-Recordation)	License Change of Name
Document ID#:	Merger Other
Correction of PTO Error Reel #: Frame #:	U.S. Government (For use ONLY by U.S. Government Agencies)
Corrective Document	(For use ONE F by 0.3. Government Agencies)
Reel #:         Frame #:	🗋 Departmental File 🛛 Secret File
Conveying Party(ies)	k if additional names of conveying parties attached
Name Physical Sciences, Inc.	Execution Date Month Day Year
Name Physical Sciences, Inc.	06/26/2002
Name	
Name	
Name	
Receiving Party	Mark if additional names of receiving parties attached
Name (line 1) Confluent Photonics Corporation	If document to be recorded
Name (line 2)	is an assignment and the receiving party is not
	domiciled in the United
Address (line 1) 20 New England Business Center	States, an appointment of a domestic representative is
Address (line 2)	attached. (Designation must be a separate document from
Address (line 3) Andover MA	01810-7100 Assignment)
City State/Country	Zip Code
Domestic Representative Name and Address	Enter for the first Receiving Party only.
Address (line 1)	
Address (line 2)	
Address (line 3)	
Address (line 4)	
	E USE ONLY
$\sim$	
7/31/2002 AAHMED1 00000039 09633934	
1 FC:581 120.00 OP	
Mail documents to be recorded with Box Assignment, Director of Patent an	required cover sheet(s) information to: ad Trademarks, Washington, D.C. 20231
box Assignment, whether an	
	PATENT

REEL: 013125 FRAME: 0149

	Page 2	PATENT
Correspondent Name and Addre Area C	ss code and Telephone Number (617) 2	248-7000
Name Patent Administrato	or	
Address (line 1) Testa, Hurwitz & Th	ibeault, LLP	
Address (line 2) High Street Tower		
Address (line 3) 125 High Street		
Address (line 4) Boston, MA 02110		
Pages Enter the total number of pa	ges of the attached conveyance doc	ument
inclucing any attachments.		9
Application Number(s) or Patent Enter either the Patent Application Numb	<b>Number(s)</b> per or the Patent Number (DO NOT ENTER	Mark if additional numbers attached
Patent Application Numb		Patent Number(s)
09/633,934		
60/200,189		
60/225,052		
Patent Cooperation Treaty (PCT)		
	РСТ РСТ	РСТ
only if a U.S. Application Number		
has not been assigned.	PCT PCT	PCT
Number of Properties	Enter the total number of properties	involved. # 3
Fee Amount Fe	e Amount for Properties Listed (37 C	<b>FR 3.41):</b> \$ 120.00
Method of Payment: Enclosed	Deposit	Account 🗌
Deposit Account (Enter for payment by deposit account or if addit	ional fees can be charged to the account)	
	Deposit Accoun	t Number # 20-0531
	Authorization to charge addit	ional fees: Yes 🛛 No 🗌
Statement and Signature	d belief, the foregoing information	n is true and correct and any
attached copy is a true copy of the as indicated herein.	he original document. Charges to	o deposit account are authorized,
	N . n 1 · 1 a	<u> </u>
Joseph B. Milstein	Joyh B With	June 28, 2002
Name of Person Signing	// Signature	Date
	V	

Γ

Mail documents to be recorded with required cover sheet(s) information to: Box Assignment, Director of Patent and Trademarks, Washington, D.C. 20231

### **ASSIGNMENT**

WHEREAS, Physical Sciences, Inc., a Massachusetts corporation having a principal business address at 20 New England Business Center, Andover, MA 01810-7100 ("ASSIGNOR"), is the owner of an interest in and to

Utility Patent application Serial No. 09/633,934, filed in the United States Patent and Trademark Office on August 8, 2000;

Provisional Patent application Serial No. 60/200,189, filed in the United States Patent and Trademark Office on April 28, 2000;

Provisional Patent application Serial No. 60/225,052, filed in the United States Patent and Trademark Office on August 16, 2000; collectively "the patent applications," and

WHEREAS, Confluent Photonics Corporation, a Delaware corporation having a principal place of business at 20 New England Business Center, Andover, Massachusetts 01810-7100 ("ASSIGNEE"), desires to acquire and has acquired by virtue of an exchange of Confluent Photonics common stock on 30 November 2000 the entire right, title and interest in and to the patent applications;

NOW, THEREFORE, for valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR sells, assigns, and transfers to said ASSIGNEE, its successors and assigns, to the extent not previously sold, assigned, and transferred by one or more of the earlier executed assignments attached hereto and listed as Exhibits in appended Schedule A, its entire right, title and interest in and to all letters patent of the United States and all foreign countries which have been or shall be granted on the patent applications, or on any divisionals, continuations, continuations-in-part, reissues, extensions or other applications based in whole thereon; the same to be held and enjoyed by ASSIGNEE for its own use and enjoyment, and for the use and enjoyment of its successors, assigns or other legal representatives, to the end of the same would have been held and enjoyed by ASSIGNOR, if this assignment and sale had not been made; together with all claims for damages by reason of past infringement of said patents, with the right to sue for such damages, and collect the same for its own use and enjoyment, and for the use and enjoyment of its successors, assigns or other legal representatives;

AND, ASSIGNOR agrees for itself and its successors and assigns, with said ASSIGNEE and its successors and assigns, but at the expense and charge of said ASSIGNEE, hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to secure the transfer to the said ASSIGNEE and its successors and assigns of Letters Patent in the United States and all other countries, with specifications and claims to vest and confirm in said ASSIGNEE and its successors and assigns, the legal title to all such

patents and to otherwise give full effect to and perfect the rights of said ASSIGNEE under this assignment;

AND, ASSIGNOR does hereby authorize and request competent authorities to issue said Letters Patent as shall be granted upon said applications to said ASSIGNEE and its successors and assigns. ASSIGNOR hereby covenants that it has full right to convey the entire interest herein assigned, and that it has not executed, and will not execute, any agreements inconsistent herewith.

IN WITNESS WHEREOF, the ASSIGNOR has caused this instrument to be executed by its duly authorized officer this <u>Zharb</u> day of <u>Ture</u>, 2002.

### **Physical Sciences Inc.**

By:\_ Printed Name: ( Title: Nes L

Commonwealth of Massachusetts ) ) ss County of Essex

Subscribed and sworn before me, by the above-named \_\_\_\_\_\_ this

UNE 2002.

Notary Public My Commission Expires:

2433251

Schedule A

- Exhibit 1. Assignment of Invention for Utility Patent application Serial No. 09/633,934,
   filed in the United States Patent and Trademark Office on August 8, 2000, signed
   by Robert F. Weiss, Chairman of Physical Sciences, Inc. on November 30, 2000.
- Exhibit 2. Assignment of Application for Utility Patent application Serial No. 09/633,934,
   filed in the United States Patent and Trademark Office on August 8, 2000, signed
   by Robert F. Weiss, Chairman of Physical Sciences, Inc. on January, 5, 2001.
- Exhibit 3. Assignment of Invention for Provisional Patent application Serial No. 60/200,189, filed in the United States Patent and Trademark Office on April 28, 2000, signed by Robert F. Weiss, Chairman of Physical Sciences, Inc. on November 30, 2000.
- Exhibit 4. Assignment of Application for Provisional Patent application Serial No.
  60/200,189, filed in the United States Patent and Trademark Office on April 28,
  2000, signed by Robert F. Weiss, Chairman of Physical Sciences, Inc. on January 5, 2001.
- Exhibit 5. Assignment of Invention for Provisional Patent application Serial No. 60/225,052, filed in the United States Patent and Trademark Office on August 16, 2000, signed by Robert F. Weiss, Chairman of Physical Sciences, Inc. on November 30, 2000.
- Exhibit 6. Assignment of Application for Provisional Patent application Serial No.
  60/225,052, filed in the United States Patent and Trademark Office on August 16, 2000, signed by Robert F. Weiss, Chairman of Physical Sciences, Inc. on January 5, 2001.

#### ASSIGNMENT OF INVENTION

WHERAS, Physical Sciences Inc. a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a principal place of business at 20 New England Business Center, Andover, Massachusetts, 01840 ("ASSIGNOR") owning rights to application for Letters Patent filed August 8, 2000 and having Patent application Serial No. 09/633,934 desires to assign and transfer all of its entire right, title, and interest in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions;

TO, CONFLUENT PHOTONICS CORPORATION (f/k/a Memscom, Inc.) ("ASSIGNEE") a Delaware corporation having a principal place of business at 20 New England Business Center, Andover, Massachusetts, 018410;

NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR, by these presents does assign and transfer unto said ASSIGNEE, all of ASSIGNOR's rights to said invention in the United States of America and any and all countries foreign to the United States of America, and ASSIGNOR's entire right, title and interest in and to any and all Letters Patent which may be granted thereof in the United States of America and any and all countries foreign to the United States of America, and any and all countries foreign to the United States of America, and any and all countries foreign to the United States of America, and any and all countries foreign to the United States of America, and in and to any and all divisions, reissues, continuations, substitutions, and renewals thereof.

ASSIGNOR hereby authorizes and requests the Patent Office in the United States of America and any and all countries foreign to the United States of America to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of our entire right, title and interest in and to the same, for the use and behalf of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment and sale not been made.

Further, ASSIGNOR agrees that ASSIGNOR will communicate to said ASSIGNEE or its representatives any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in any and all countries foreign to the United States of America.

The undersigned hereby grants authorized representatives of the above identified ASSIGNEE the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

PHYSICAL SCIENCES INC.

.......

J. Heur ahert

Name: Robert F. Weiss Title: Chairman

Date: November <u>30</u>, 2000

PTO/SB/15 (08-0 Approved for use through 05/31/2002. OMB 0651-00: U. S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERC

U. S. Patent and Tradem: Paperwork Reduction Act of 1995, no persons are required to respond to a collection of informati	on unless it displays a valid OMB control num
ASSIGNMENT OF APPLICATION	Docket Number (Optional)
Whereas, I, _ Robert F. Weiss, Chairmanof _ Physical Scier	ices Inc, hereafter
referred to as applicant, have invented certain new and useful improvement	lsin_DWDM optical
compenent using unique filtering processes in minia	iture
X for which an application for a United States Patent was filed on <u>Au</u> Application Number <u>09</u> <u>/ 633,934</u> .	igust 8, 2000
for which an application for a United States Patent was executed on	, and
Whereas, <u>Confluent Photonics Corporation of Delawa</u> "assignee" whose mailing address is <u>20 New England Business Ct</u>	
sirous of acquiring the entire right, title and interest in the same;	
Now, therefore, in consideration of the sum of <u>one</u> dollars ( $\$_{1.00}$	), the receipt whereof is ac-
knowledged, and other good and valuable consideration, I, the applicant, by	these presents do sell, assign
and transfer unto said assignee the full and exclusive right to the said inventi	ion in the United States and the
entire right, title and interest in and to any and all Patents which may be grant	ed therefor in the United States,
I hereby authorize and request the Commissioner of Patents and Tradema	rks to issue said United States
Patent to said assignee, of the entire right, title, and interest in and to the san	ne, for his sole use and behoof;
and for the use and behoof of his legal representatives, to the full end of the	term for which said Patent may
be granted, as fully and entirely as the same would have been held by me ha	d this assignment and sale not
been made.	
Executed this day of January	, 20 <mark>01</mark>
at ANDOUER MA	
State of $\underline{M4.05}$ , SS: County of $\underline{E5501}$ ) Before me personally appeared said $\underline{CDBERT} + \underline{CDE15}$ and acknowledged the foregoing instrument to be his free act and deed this $\underline{D}$ day of $\underline{SANUARY}_{20}$ 01.	F Laure (Signature)
Seal Chrant	(Notary Public)

ι,

ler the

n Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any ients on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Washington. DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner of Patents rademarks, Washington, DC 20231.

#### ASSIGNMENT OF INVENTION

WHERAS, Physical Sciences Inc. a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a principal place of business at 20 New England Business Center, Andover, Massachusetts, 01840 ("ASSIGNOR") owning rights to application for Letters Patent filed April 28, 2000 and having Patent application Serial No, 60/200, 189 desires to assign and transfer all of its entire right, title, and interest in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions;

TO, CONFLUENT PHOTONICS CORPORATION (1/k/a Memscom, Inc.) ("ASSIGNEE") a Delaware corporation having a principal place of business at 20 New England Business Center, Andover, Massachusetts, 018410;

NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR, by these presents does assign and transfer unto said ASSIGNEE, all of ASSIGNOR's rights to said invention in the United States of America and any and all countries foreign to the United States of America, and ASSIGNOR's entire right, title and interest in and to any and all Letters Patent which may be granted thereof in the United States of America and any and all countries foreign to the United States of America, and in and to any and all divisions, reissues, continuations, substitutions, and renewals thereof.

ASSIGNOR hereby authorizes and requests the Patent Office in the United States of America and any and all countries foreign to the United States of America to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of our entire right, title and interest in and to the same, for the use and behalf of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment and sale not been made.

Further, ASSIGNOR agrees that ASSIGNOR will communicate to said ASSIGNEE or its representatives any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in any and all countries foreign to the United States of America.

The undersigned hereby grants authorized representatives of the above identified ASSIGNEE the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

PHYSICAL SCIENCES INC.

Herr By:

Name: Robert F. Weiss Title: Chairman

Date: November 30, 2000

1D # 220039v01/12385-1 11/28/2000

### **ASSIGNMENT OF APPLICATION**

Docket Number (Optional)

Whereas, 1. Robert F. Weiss, Chairmanof Physical Sciences Inc. , hereafte
referred to as applicant, have invented certain new and useful improvements in
compenent; using unique filtering processes in miniature
X for which an application for a United States Patent was filed on <u>April 28, 2000</u> , Application Number_ 60/200, 189
for which an application for a United States Patent was executed on, and
Whereas, <u>Confluent Photonics Corporation of Delaware</u> herein referred to
"assignee" whose mailing address is 20 New England Business Ctr., Andover, MA is de-
sirous of acquiring the entire right, tille and interest in the same;
Now, therefore, in consideration of the sum of <u>one</u> dollars ( $1.00$ ), the receipt whereof is ac-
knowledged, and other good and valuable consideration, I, the applicant, by these presents do sell, assign
and transfer unto said assignee the full and exclusive right to the said invention in the United States and the
entire right, title and interest in and to any and all Patents which may be granted therefor in the United States
I hereby authorize and request the Commissioner of Patents and Trademarks to issue said United States
Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof
and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may
be granted, as fully and entirely as the same would have been held by me had this assignment and sale not
been made.
Executed this, 2001, 2001,
at ANDWER: MA
Pout Went
State of <u>MA55</u> SS: (Signature)
Before me personally appeared said <u>KODERT F. NE155</u> and acknowledged the foregoing instrument to be his free act and deed this <u>545</u>
say of Shall all 20_61.
aran Daranelle
Seal // (Notary Public)

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Tradema Office, Washington, DC 20231, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner of Pate and Trademan's, Wachington, DC 20231.

### ASSIGNMENT OF INVENTION

WHERAS, Physical Sciences Inc. a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a principal place of business at 20 New England Business Center, Andover, Massachusetts, 01840 ("ASSIGNOR") owning rights to application for Letters Patent filed August 16, 2000 and having Provisional Patent application Serial No. 60/226,052 desires to assign and transfer all of its entire right, title, and interest in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions;

TO, CONFLUENT PHOTONICS CORPORATION (f/k/a Memscom, Inc.) ("ASSIGNEE") a Delaware corporation having a principal place of business at 20 New England Business Center, Andover, Massachusetts, 018410;

NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, ASSICNOR, by these presents does assign and transfer unto said ASSIGNEE, all of ASSIGNOR's rights to said invention in the United States of America and any and all countries foreign to the United States of America, and ASSIGNOR's entire right, title and interest in and to any and all Letters Patent which may be granted thereof in the United States of America and any and all countries foreign to the United States of America, and in and to any and all divisions, reissues, continuations, substitutions, and renewals thereof.

ASSIGNOR hereby authorizes and requests the Patent Office in the United States of America and any and all countries foreign to the United States of America to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of our entire right, title and interest in and to the same, for the use and behalf of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment and sale not been made.

Further, ASSIGNOR agrees that ASSIGNOR will communicate to said ASSIGNEE or its representatives any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightfal oaths, and, generally do everything possible to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in any and all countries foreign to the United States of America.

The undersigned hereby grants authorized representatives of the above identified ASSIGNEE the power to insen on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

PHYSICAL SCIENCES INC.

Filler

Name: Robert F. Weis: Title: Chairman

Date: November <u>30</u>, 2000

3

ID # 220039v01/12385-1

## **ASSIGNMENT OF APPLICATION**

Docket Number (Optional)

Whereas, I. <u>Robert F. Weiss, Chairman</u> of <u>Physical Sciences Inc.</u> , hereafter
referred to as applicant, have invented certain new and useful improvements in <u>DWDM optical</u>
compenents using unique filtering processes in miniature
X       for which an application for a United States Patent was filed on August 16, 2000         Application Number_       60/226,052         Image: State in the st
Whereas, <u>Confluent Photonics Corporation of Delaware</u> herein referred to
"assignee" whose mailing address is20 New England Business Ctr., Andover, MA is de-
sirous of acquiring the entire right, title and interest in the same;
Now, therefore, in consideration of the sum of <u>one</u> dollars ( $\frac{1.00}{1.00}$ ), the receipt whereof is ac-
kr owledged, and other good and valuable consideration, I, the applicant, by these presents do sell, assign
ar d transfer unto said assignee the full and exclusive right to the said invention in the United States and the
er tire right, title and interest in and to any and all Patents which may be granted therefor in the United States,
I hereby authorize and request the Commissioner of Patents and Trademarks to issue said United States
Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof;
and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may
be granted, as fully and entirely as the same would have been held by me had this assignment and sale not
been made.
Executed this $5^{\text{W}}$ day of January ,2001 , at $ANDOVER MA$
al ANDOVER, MA
(Singeture)
State of <u>MASACHUSETIS</u> SS: County of <u>1555751</u> ) Elefore me personally appeared said <u>ALBERT</u> F. WE155 and acknowledged the foregoing instrument to be his free act and deed this <u>515</u> cay of <u>TANUARA</u> , 20 <u>01</u> . Seal Seal (Notary Public)

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. A comments on the procent of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademan Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner of Paten and Trademarks, Washington, DC 20231.