

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

To: The Honorable Commissioner of Patents and Trademarks  
Please record the attached original document(s) or copy thereof.

**1. Name of conveying party(ies)/(Execution Date)**

Simmons, Richard L. May 3, 2004  
Shoemaker, Curtis L. May 3, 2004  
Kornele, Kenneth L. May 3, 2004  
Loder, Harry A. May 7, 2004  
Lurie, Edward B. May 3, 2004  
Lee, Nicholas A. April 27, 2004

Additional names of conveying party(ies) attached?  
 Yes  No

**2. Name and address of receiving party(ies):**

**3M Innovative Properties Company**  
P.O. Box 33427  
St. Paul, Minnesota 55133-3427

Additional names of receiving party(ies) attached?  
 Yes  No

**3. Nature of Conveyance:**

Assignment  Merger  
 Security Agreement  Change of Name  
 Other:

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

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

**A. Patent Application No(s).**  
10/101255

**B. Patent No(s).**

Additional Numbers Attached?  Yes  No

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

Name: Melanie G. Gover  
Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Phone Number: (512) 984-4308

**32692**  
Customer Number

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

1

**7. Total fee (37 CFR § 3.41):**

\$40.00

Enclosed  
 Authorized to be charged to deposit account

**8. Deposit Account Number: 13-3723**

**DO NOT USE THIS SPACE**

**9. Statement and Signature**

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Printed Name of Attorney/Agent:  
Melanie G. Gover  
Registration No.: 41,793

*Melanie Gover*  
Signature

*May 21, 2004*  
Date

**Pages:** Total number of pages including COVER SHEET, attachments and documents

4

Mail documents to be recorded with required cover sheet information to:  
Mail Stop Assignment Recordation Services  
Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

CH \$40.00 133723 10101255

**ASSIGNMENT OF APPLICATION**

Whereas I/we, the below named inventor(s), with residence and citizenship as indicated below, have made an invention in

**IN-LINE SHUFFLE MODULES UTILIZING THREE DIMENSIONAL OPTICAL CIRCUITS**


- for which an application for a United States Patent is being filed contemporaneously herewith;
- for which an application for a United States Patent identified as U.S. Patent Application No. 10/101255; was filed on March 18, 2002;
- which application is identified as PCT International Patent Application No. filed ;


Now, therefore, for good and valuable consideration, receipt of which is acknowledged, I/we have agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly-owned subsidiary of 3M COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by me or made jointly with others (provided any such improvement is made during, or within one year after the termination of, my employment by 3M COMPANY and any of its existing or future subsidiaries), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by me/us had this assignment and transfer not been made;


I/We do further agree for myself/ourselves and for my/our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as I/we lawfully may, that may be deemed necessary by said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries; and


I/We do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.

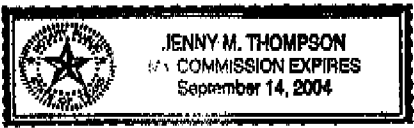
In witness whereof, I/we have signed my/our name(s) on the day and year set forth below.


Given Name (first and middle [if any]): Richard L.		Family Name or Surname: Simmons	
Inventor's Signature: <i>Richard L. Simmons</i>		Date: 5/3/2004	
Residence: Leander, Texas		Country: USA	Citizenship: United States of America
STATE OF TEXAS COUNTY OF TRAVIS } ss.		On this <u>3rd</u> day of <u>MAY</u> , <u>2004</u> , before me personally appeared the above-named Richard L. Simmons, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.	
(Seal)		<i>Jenny M. Thompson</i> Notary Public	

Given Name (first and middle [if any]): Curtis L.		Family Name or Surname: Shoemaker	
Inventor's Signature: <i>Curtis L. Shoemaker</i>		Date: 5/3/2004	
Residence: Round Rock, Texas		Country: USA	Citizenship: United States of America
STATE OF TEXAS ) COUNTY OF TRAVIS )		) ss.	
On this <u>3RD</u> day of <u>MAY</u> , <u>2004</u> , before me personally appeared the above-named Curtis L. Shoemaker, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.			
(Seal)		<i>Jenny M. Thompson</i> Notary Public	

Given Name (first and middle [if any]): Kenneth L.		Family Name or Surname: Kornele	
Inventor's Signature: <i>Kenneth L. Kornele</i>		Date: 5/3/2004	
Residence: Georgetown, Texas		Country: USA	Citizenship: United States of America
STATE OF TEXAS ) COUNTY OF TRAVIS )		) ss.	
On this <u>3RD</u> day of <u>MAY</u> , <u>2004</u> , before me personally appeared the above-named Kenneth L. Kornele, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.			
(Seal)		<i>Jenny M. Thompson</i> Notary Public	

Given Name (first and middle [if any]): Harry A.		Family Name or Surname: Loder	
Inventor's Signature: <i>Harry A. Loder</i>		Date: 5/7/04	
Residence: Austin, Texas		Country: USA	Citizenship: United States of America
STATE OF TEXAS ) COUNTY OF TRAVIS )		) ss.	
On this <u>7th</u> day of <u>MAY</u> , <u>2004</u> , before me personally appeared the above-named Harry A. Loder, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.			
(Seal)		<i>Jenny M. Thompson</i> Notary Public	

Given Name (first and middle [if any]): Edward B.		Family Name or Surname: Lurie	
Inventor's Signature: <i>Edward B. Lurie</i>		Date: 5/3/04	
Residence: Round Rock, Texas		Country: USA	Citizenship: United States of America
STATE OF TEXAS ) COUNTY OF TRAVIS ) ss. On this <u>3RD</u> day of <u>MAY</u> , <u>2004</u> , before me personally appeared the above-named Edward B. Lurie, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.			
(Seal)		<i>Jenny M. Thompson</i> Notary Public	

Given Name (first and middle [if any]): Nicholas A.		Family Name or Surname: Lee	
Inventor's Signature: <i>Nicholas A. Lee</i>		Date: 4/27/04	
Residence: Woodbury, Minnesota		Country: USA	Citizenship: United States of America
STATE OF MINNESOTA ) COUNTY OF RAMSEY ) ss. On this <u>27th</u> day of <u>April</u> , <u>2004</u> , before me personally appeared the above-named Nicholas A. Lee, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.			
(Seal)		<i>Karen L. Sipinen</i> Notary Public	