FORM PTO-1595 RECORDATION	ON FORM COVER SHEET U.S. DEPARTMENT OF COMMERCE
1-31-92 PA 7	TENTS ONLY Patent and Trademark Office
To the Commissioner of Patents and Tradema	arks: Please record the attached original documents or copy thereof.
1. Name of conveying party(ies): Corning Incorporated Corning Photonic Technologies, Inc. Corning Lasertron, Inc. Corning O.T.I. S.r.l. Additional name(s) of conveying party(ies) attached? Yes No Nature of conveyance: Assignment Merger Security Agreement Change of Nat	2. Name and address of receiving party(ies): Name: Avanex Corporation Street Address: 40919 Encyclopedia Circle City/State/Zip: Fremont, California 94538 Additional name(s) & address(es) attached? ☐ Yes ☒ No
Execution Date: 7/31/03 4. Application number(s) or patent number(s): 1	
If this document is being filed together with a new app	
A. Patent Application No.(s):	B. Patent No.(s): 6,018,404
	l numbers attached? ☐ Yes ☒ No
Name and address of party to whom corresponden concerning document should be mailed:	6. Total number of applications and patents involved: [1]
Name: U.P. Peter Eng Internal Address: FH 1-2 Wilson Sonsini Goodrich & Rosati 650 Page Mill Road	7. Total fee (37 CFR 3.41)\$40.00 Enclosed Authorized to be charged to deposit account
Palo Alto, CA 94304-1050	8. Deposit account number: 23-2415 (Attorney Docket No.: 20397.700)
DO NO	OT USE THIS SPACE
 Statement and signature. To the best of my knowledge and belief, the foregothe original document. U.P. Peter Eng, Reg. No. 39,666 	oing information is true and correct and any attached copy is a true copy of With English (25,30/03)
Name of Person Signing	Signature Date
_ _	otal number of pages including cover sheet, attachments, and document:

PATENT ASSIGNMENT

This Patent Assignment ("Assignment") is made as of July 31, 2003 by Corning, Incorporated a New York Corporation, having a place of business at One Riverfront Plaza, Corning New York ("Corning") and its subsidiaries identified in signature blocks below (collectively referred to as "Assignors"), to Avanex Corporation, a Delaware corporation having a place of business at 40919 Encyclopedia Circle, Fremont, California 94538, United States of America ("Assignee").

RECITALS

- A. Corning, Assignee and Alcatel have entered into a Share Acquisition and Asset Purchase Agreement dated as of May 12, 2003 (the "Purchase Agreement") and an Intellectual Property Rights Agreement Between Corning Incorporated and Avanex Corporation Relating to Photonics executed on even date herewith (the "Intellectual Property Rights Agreement").
- B. Assignors owns the patent(s) issued by the United States Patent and Trademark Office and certain foreign patent and trademark offices, as well as patent applications filed with the United States Patent and Trademark Office and certain foreign patent and trademark offices, as set forth on Schedule A hereto (the "Patents").
- C. Pursuant to the Purchase Agreement and the Intellectual Property Rights Agreement, Corning desires to assign and to have its subsidiaries assign to Assignee all of Assignors' right, title and interest in and to the Patents.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants and agreements contained in the Purchase Agreement, the Intellectual Property Rights Agreement and the covenants and agreements in this Assignment and to induce Assignee to consummate the transactions contemplated by the Purchase Agreement, Assignor agrees as follows:

Assignee all of Assignor's right, title and interest in and to the Patents (and regarding Patents that are patent applications, any patents that may issue therefrom), including any foreign counterparts, divisionals, continuations in whole or in part, reexaminations, reissues or extensions thereof, and the right to claim priority to any of the preceding, the same to be held by Assignee for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors, assigns and other legal representatives, as fully and entirely as 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 infringements of the Patents, along with the right to sue for and collect such damages for the use and benefit of Assignee and its successors, assigns and other legal representatives, such claims and right to sue being subject, however, to the obligation to remit to Corning recovery attributable to acts of infringement prior to execution of the Intellectual Property Rights Agreement (Section 2.2).

Qualified in Kings County
Commission Expires June 30, 2007

2. Each Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any officer of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of intellectual property protection or applications as aforesaid, to issue the same to Assignee and its successors, assigns and other legal representatives in accordance with the terms of this instrument.

IN WITNESS WHEREOF, each Assignor has executed this Assignment on the date first above written.

Corning Incorporated	
Ву:	Mark W. Tunder
Printed Name:	Mark W. Laureosch
Title:	Assistant Secretary
Corning Photonic Techn	nologies, Inc.
Ву:	Mark N. Timovel
Printed Name:	Mark W. Laureoseth
Title:	Assistant Secretary
	Acknowledgment by Notary Public
Country of <u>USA</u>	
State of New York	
County / City of New	York
On this <u>Sist</u> Public, personally appear basis of satisfactory evid	day of July , 2003 before me, the undersigned Notary red Mark W. Lauroesch, personally known to me (or proved to me on the ence) to be the person whose name is subscribed to the within instrument, that he or she executed the same.
Scal:	Signature: Canalel Carlton
	Name: Ronald Carlton , Notary Public
RONALD CARLTON Notary Public, State of New Ye No. 01CA4841982	ork -2-

Corning Lasertron, Inc.

Ву:	Nuia L.J.
Printed Name:	William L. Juan
Title:	Clerk
	Acknowledgment by Notary Public
Country of USA	
State of New York	
County / City of New	York
of satisfactory evidence)	day of July, 2003 before me, the undersigned Notary red William L. Juan, personally known to me (or proved to me on the basis to be the person whose name is subscribed to the within instrument, and he or she executed the same.
Seal:	Signature: Finaled Carlton Name: Ronald Carlton, Notary Public
	Name: Ronald Carlten, Notary Public

RONALD CARLTON
NOTATY Public, State of New York
No. 01CA4841982
Qualified in Kings County
Commission Expires June 30, 2007

Corning O.T.I. S.r.l,	Mark W. Lawrendon
By:	
Printed Name:	MARK W. LAUROUSE H
Title:	MARK W. LAUROUSE H ASS ISTANT SELRETARY
·	Acknowledgment by Notary Public
Country of USA State of New York County / City of New On this 31 st Public, personally appear	day of July, 2003 before me, the undersigned Notary ed Mark W. Lauroesch, personally known to me (or proved to
me on the basis of satisf	actory evidence) to be the person whose name is subscribed to the within edged to me that he or she executed the same.
Seal:	Signature: Louerla Carolon
	Name: Rougld Carlon, Notary Public

RONALD GARLTON
Notary Public, State of New York
No. 01CA4841982
Qualified in Kings County
Commission Expires June 30, 2007

Patent Assignment

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Corning Case Name	Title	 	Pat/Pub No.

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Bidirectional Optical Telecommunication System Comprising A Bidirectional Optical

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