PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL YU-TAK YOUNG	08/26/2020
WAYNE MCMILLAN	05/13/2020
RUTGER MEYER TIMMERMAN THIJSSEN	05/13/2020
ROBERT JAN VISSER	05/13/2020

RECEIVING PARTY DATA

Name:	APPLIED MATERIALS, INC.	
Street Address: 3050 BOWERS AVENUE		
City: SANTA CLARA		
State/Country: CALIFORNIA		
Postal Code: 95054		

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	16762869		

CORRESPONDENCE DATA

Fax Number: (713)623-4846

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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psdocketing@pattersonsheridan.com

Correspondent Name: PATTERSON + SHERIDAN, LLP

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ATTORNEY DOCKET NUMBER:	025251USP02	
NAME OF SUBMITTER:	STEVEN H VERSTEEG	
SIGNATURE:	/Steven H VerSteeg/	
DATE SIGNED:	08/27/2020	

Total Attachments: 4

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PATENT REEL: 053610 FRAME: 0636

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

**	Michael Yu-tak YOUNG 21210 Rainbow Drive Cupertino, California 95014	2)	Wayne MCMILLAN 1141 Mountain Quail Circle San Jose, California 95120
3)	Rutger MEYER TIMMERMAN THIJSSEN 1042 Michelangelo Drive Sunnyvale, California 94087	4)	Robert Jan VISSER 2320 Eastridge Avenue Menio Park, California 94025

(hereinafter referred to as Assignors), have invented a certain invention entitled:

METHOD OF DIRECT ETCHING FABRICATION OF WAVEGUIDE COMBINERS.

for which application for Letters Patent in the United States was filed on May 8, 2020, under Serial No. 16/762,869, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

- 1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.
- 2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filling and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filling and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in couried patents.

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- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	ANG 126, 2020 (DATE)	Michaely Tok Yord
		Michael Yu-tak YOUNG
2)	(OATE)	Wayne MCMILLAN
3)	(DATE)	Rutger MEYER TIMMERMAN THIJSSEN
4)	(DATE)	Robert Jan VISSER

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	Michael Yu-tak YOUNG 21210 Rainbow Drive Cupertino, California 95014	2)	Wayne MCMILLAN 1141 Mountain Quail Circle San Jose, California 95120
3)	Rutger MEYER TIMMERMAN THIJSSEN 1042 Michelangelo Drive Sunnyvale, California 94087	4)	Robert Jan VISSER 2320 Eastridge Avenue Menlo Park, California 94025

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- 2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filling and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filling and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

PATENT REEL: 053610 FRAME: 0639

- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)		(DATE)	
			Michael Yu-tak YOUNG
			Compositioned by:
	5/13/2020		Mayne McMillan/
2)		(DATE)	Wayne MCMILLAN
			•
			Bocusigned by:
3)	5/13/2020	(DATE)	765987812157438.
υ γ		Rutger MEYER TIMMERMAN THIJSSEN	
			Docusigned by:
ės:	5/13/2020	yes, a separate	/Robert Jan Visser/
4)		(DATE)	
			Robert Jan VISSER