506338446 11/04/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LAWRENCE S MELVIN III	11/02/2020
KEVIN J. HOOKER	11/02/2020

RECEIVING PARTY DATA

Name:	SYNOPSYS, INC.
Street Address:	690 EAST MIDDLEFIELD ROAD
City:	MOUNTAIN VIEW
State/Country:	CALIFORNIA
Postal Code:	94043

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	17089190
PCT Number:	US2058609

CORRESPONDENCE DATA

Fax Number: (650)938-5200

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.

Phone: 16503357823

Email: dchevalier@fenwick.com
Correspondent Name: MICHAEL W. FARN

Address Line 1: 801 CALIFORNIA STREET

Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

ATTORNEY DOCKET NUMBER:	22524-47415/US/WO
NAME OF SUBMITTER:	MICHAEL W. FARN
SIGNATURE:	/Michael W. Farn/
DATE SIGNED:	11/04/2020

Total Attachments: 2

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PATENT 506338446 REEL: 054274 FRAME: 0203

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to **Synopsys, Inc.**, a Delaware Corporation, having a place of business at 690 East Middlefield Road, Mountain View, CA 94043 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

- 1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional or non-provisional application(s), including those filed under 35 U.S.C. § 111, design applications filed under 35 U.S.C. § 171, Registered Community Designs, international applications filed according to the Patent Cooperation Treaty (PCT), U.S. national phase applications filed under 35 U.S.C. § 371, national or regional applications filed in any other country throughout the world, and any patents issuing thereon ("PATENT RIGHTS"):
 - U.S. Application No. 17/089,190 ______, entitled USING MASK FABRICATION MODELS IN CORRECTION OF LITHOGRAPHIC MASKS, filed on November 4, 2020 _____, which claims priority from a provisional application, filed on November 4, 2019, now bearing US Application No. 62/930,134.
 - PCT Application No. PCT/US20/58609 , entitled USING MASK FABRICATION MODELS IN CORRECTION OF LITHOGRAPHIC MASKS, filed on November 2, 2020 , which claims priority from a provisional application, filed on November 4, 2019, now bearing US Application No. 62/930,134.
- 2. The entire worldwide right, title, and interest in and to:
 (a) the PATENT RIGHTS, including any right of priority; (b) any provisional, divisional, continuation, substitute, renewal, reissue, and other related applications thereto which have been or may be filed in the United States or elsewhere in the world; (c) any patents which may be granted on the applications set forth in (a) and (b) above; and (d) the right to sue in its own name and to recover for past infringement of any or all of any applications or patents issuing therefrom together with all rights to recover damages for infringement of

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

provisional rights.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of

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22524/47415/FW/11667098.1

Title:	USING MASK FABRICATION MODELS IN CORRECTION OF LITHOGRAPHIC		
	MASKS		
Filed:	November 4, 2020	Attorney Docket #:	22524-47415/US
Application #:	17/089,190	Client Ref #:	3442US02

attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other authority for recordation of this document.

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

Nov 2, 2020	Low Shut	
Date:		
(Required)	Lawrence S. Melvin III	
Nov 2, 2020 Date:	ASS	
(Required)	Kevin J. Hooker	