505876265 01/22/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NGAI NGAI WILLIAM HUNG	01/16/2020
DHIRAJ GOSWAMI	01/16/2020

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16579502

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	22524-44397/US	
NAME OF SUBMITTER:	JORGE A. KINA	
SIGNATURE:	/JORGE A. KINA/	
DATE SIGNED:	01/22/2020	

Total Attachments: 2

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PATENT 505876265 REEL: 051584 FRAME: 0764

<u>ASSIGNMENT</u>

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, California, 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 any of the following patent application(s). Registered Community Design(s), international application(s) filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application(s) (collectively, the "APPLICATION"), and any patents issuing thereon ("PATENT RIGHTS"):
 - U.S. Application No. 16/579,502, entitled "FPGA Implementation Interleaved with FPGA Overlay Architectures for Emulation", filed on September 23, 2019, which claims priority from a provisional application, filed on September 24, 2018, now bearing U.S. Application No. 62/735,350.
- 2. The entire worldwide right, title, and interest in and to:
 (a) the APPLICATION; (b) all applications claiming priority from the APPLICATION;
 (c) all provisional, utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto that have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) that may be granted on the applications set forth in (a). (b), and (c) above; and (e) all right of priority in the

APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of provisional rights.

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

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 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.

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22324/44397/FW/11047492.1

Title:	FPGA Implementation Interlea	wed with FPGA Overlay Architec	ctures for Emulation	
Piled:	September 23, 2019	Attorney Docket #:	22524-44397/US	
Application #:	16/579,502		3278US02	

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.

Name and Signature	Date of Signature (REQUIRED)
addit	1-16-2020
Ngai Ngai William Hung Name and Signature	Date of Signature (REQUIRED)
Directy by	1/16/20

Dhiraj Goswami