

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT7382637

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JHIH-RONG GAO	03/31/2021
YI-XIAO DING	03/31/2021
ZHUO LI	03/31/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CADENCE DESIGN SYSTEMS, INC.
<b>Street Address:</b>	2655 SEELY AVENUE BUILDING 5
<b>City:</b>	SAN JOSE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95134
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17219748
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Email:</b>	Request@slwip.com
<b>Correspondent Name:</b>	SCHWEGMAN LUNDBERG & WOESSNER, P.A.
<b>Address Line 1:</b>	P.O. BOX 2938
<b>Address Line 4:</b>	MINNEAPOLIS,, MINNESOTA 55402
<b>ATTORNEY DOCKET NUMBER:</b>	3225.311US1
<b>NAME OF SUBMITTER:</b>	JESSE CANTRELL
<b>SIGNATURE:</b>	/ Jesse Cantrell /
<b>DATE SIGNED:</b>	06/14/2022
<b>Total Attachments: 6</b>	
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PATENT



RECORDATION FORM COVER SHEET  
PATENTS ONLY

Atty Ref/Docket No.: 3225.311US1 / 20PA134US01

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Jhih-Rong Gao, Yi-Xiao Ding, Zhuo Li

Additional name(s) of conveying party(ies) attached?

Yes  No

3. Nature of conveyance:

Assignment  Merger

Security Agreement  Change of Name

Other

Execution Date: March 31, 2021, March 31, 2021,  
March 31, 2021

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

Name: Cadence Design Systems, Inc.

Street Address: 2655 Seely Avenue  
Building 5

City: San Jose State: CA Zip: 95134

Country: United States of America

Additional name(s) & address(es) attached?  Yes  
 No

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)

Serial No. 17/219,748

B. Patent No.(s)

Additional numbers attached?  Yes  No

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

Name: Anup A. Suresh

Address:

Schwegman Lundberg & Woessner, P.A.  
P.O. Box 2938  
Minneapolis, Minnesota 55402

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 0.00

Enclosed

Authorized to be charged to deposit account  
19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

**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.

Anup A. Suresh/Reg. No. 65,338

Name of Person Signing

/ 

Signature

Jun 14, 2022

Date

Total number of pages including cover sheet: 6

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks  
Mail Stop Assignment Recordation Services  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PATENT**  
**REEL: 060197 FRAME: 0342**

### ASSIGNMENT

WHEREAS, Jhieh-Rong Gao, Yi-Xiao Ding and Zhuo Li (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention"); as described in the patent application filed on March 31, 2021, assigned US application serial number 17/219,748, and titled PRUNING REDUNDANT BUFFERING SOLUTIONS USING FAST TIMING MODELS.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Cadence Design Systems, Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 2655 Seely Avenue, Building 5, San Jose, CA 95134, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;  
such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 97337 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

**Assignment**

Assignors: Jih-Rong Gao et al.

Title: PRUNING REDUNDANT BUFFERING SOLUTIONS USING FAST TIMING MODELS

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Docket No: 3225.311US1 / 20PA134US01

Client Ref. No. 20PA134US01

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

**Assignment**

Assignors: Jih-Rong Gao et al.

Title: PRUNING REDUNDANT BUFFERING SOLUTIONS USING FAST TIMING MODELS

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Docket No: 3225.311US1 / 20PA134US01

Client Ref. No. 20PA134US01

**Assignor:**

(Signature): / *Jih-Rong Gao* /

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Name: Jih-Rong Gao

City/State or Country: Austin, TX

Date: Mar 31, 2021

Assignment

Docket No: 3235 311US1 / 20PA134US01

Assignors: Bih-Rong Gao et al

Client Ref. No. 20PA134US01

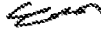
Title: PRUNING REDUNDANT BUFFERING SOLUTIONS USING FAST TIMING MODELS

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Assignor:

(Signature) /



/

Name: Yi-Xiao Ding

City/State or Country: Austin, TX

Date:

Mar 31, 2021

**Assignment**

Assignors: Jih-Rong Gao et al.

Title: PRUNING REDUNDANT BUFFERING SOLUTIONS USING FAST TIMING MODELS

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Docket No: 3225.311US1 / 20PA134US01

Client Ref. No. 20PA134US01

**Assignor:**

(Signature): / *Zhuo Li* /

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Name: Zhuo Li

City/State or Country: Austin, TX

Date: Mar 31, 2021