03-10-2003 

## U.S. DEPARTMENT OF COMMERCE

## 102384598

PATENTS	Docket No. 19555-7252
To the Commissioner of Patents and Trademark	ss: Please record the attached original documents or copy thereof.
1. Name of conveying party(ies): Thanh Vuong William H. Kao David C. Noice	2. Name and address of receiving party(ies):  Name: Cadence Design Systems, Inc. Address: 2655 Seely Avenue City: San Jose State: CA
<ul> <li>☑ Individual(s)</li> <li>☐ General Partnership</li> <li>☐ Corporation-State</li> <li>☐ Association</li> <li>☐ Limited Partnership</li> <li>☐ Other</li> </ul>	Zip Code: 95134
Additional name(s) of conveying party(ies) attached? ☐ Yes  3. Nature of conveyance: —	■ No  Additional name(s) & address(es) attached? □ Yes ■ No
□ Assignment     □ Merger     □ Change of Name     □ Other:	
Execution Dates: 02/12/2003; 02/05/2003; 02/05/2003	7.00 7.00 7.00
4. Application number(s) or patent number(s):	
If this document is being filed with a new application, the	e execution date of the application is:
A. Patent Application No.(s): 10/300,544	B. Patent No.(s):
Additional numbers attached? ☐ Yes ☒ No	2. S. Falcin Holds:
Name and address of party to whom correspondence concerd document should be mailed:	
Peter C. Mei	7. Total fee (37 C.F.R. § 3.41): \$40.00
Bingham McCutchen LLP	☐ Enclosed
Three Embarcadero, Suite 1800	Authorized to be charged to deposit account no. 50-2518,
San Francisco, CA 94111-4067	referencing Attorney Docket No. 19535-7234
The Commissioner is hereby authorized to charge any fees under 37 C.F.R. 81.21	8. Deposit account number: <b>50-2518</b> that may be required by this paper, or to credit any overpayment to Deposit Account No. 50-2518
	OT USE THIS SPACE
Statement and signature.  To the best of my knowledge and belief, the foregoing inforiginal document.	Formation is true and correct and any attached copy is a true copy of the
Name: Erin C. Ming Registration No. 47,797 Signature	Date: 2-18-03
Total number of pages compris	sing cover sheet, attachments and document: 6
Office	ded with required cover sheet information to: ent and Trademark Office ce of Public Records Box Assignments Gateway 4, Room 335
Wasi	hington, D.C. 20231

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**PATENT REEL: 013814 FRAME: 0499** 

## ASSIGNMENT OF PATENT APPLICATION

WHEREAS, WE, THANH VUONG, a citizen of the United States of America,
WILLIAM H. KAO, a citizen of the United States of America, and DAVID C. NOICE, a
citizen of the United States of America (hereinafter referred to as "ASSIGNORS"), have
invented a certain invention entitled METHOD, SYSTEM, AND ARTICLE OF
MANUFACTURE FOR IMPLEMENTING METAL-FILL WITH POWER OR GROUND
CONNECTION for which application for Letters Patent of the United States of America
was filed on November 19, 2002, assigned Serial No. 10/300,544; and

WHEREAS, CADENCE DESIGN SYSTEMS, INC., a corporation organized and existing under and by virtue of the laws of the state of DELAWARE and having its place of business at 2655 Seely Avenue, San Jose, California 95134 (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the exclusive right, title and interest in, to and under said invention and in, to and under any Patent or similar legal protection to be obtained therefore in the United States of America, its territorial possessions and in any and all countries foreign thereto.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, transfer and set over unto the said ASSIGNEE, its successors and assigns, the full and exclusive right, title and interest to said invention and to all Letters Patent or application or similar legal protection, not only in the United States and its territorial possessions, but in all countries foreign thereto to be obtained for said invention by said application, and to any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in the United States or a foreign country for the full term or terms for which the

52101894.1/2019535-2195357234

PATENT REEL: 013814 FRAME: 0500 same may be granted, including all priority rights under the International Convention; and ASSIGNORS hereby authorize and request the United States Commissioner of Patents and Trademark and any officials of foreign countries whose duty it is to issue patents or any legal equivalent thereof to said ASSIGNEE, its successors and assigns, in accordance with this Agreement.

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Agreement.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents in the United States or in any foreign county, which may be necessary or desirable to carry out the purpose thereof.

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WITNESS my hand at San Jose Ca
this 12 day of Feb , 2003.
THANH VUONG
STATE OF CALIFORNIA )
) ss COUNTY OF <u>SANTA CLARA</u> )
On <u>2-12-03</u> before me, <u>Judith Featherstone</u> , personally appeared <u>Thanh Vuong</u> □ personally known to me – <b>OR-</b> □ proved to me on the basis of satisfactory
evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
WITNESS my hand and official seal.
Notary Public
JUDITH FEATHERSTONE Commission # 1234751 Notary Public - California Santa Clara County My Comm. Expires Sep 16, 2003

WITNESS my hand at <u>San Jose</u> , <u>California</u> .
this, 2003.
William H. Ka
WILLIAM H. KAO
STATE OF CALIFORNIA ) ) ss
COUNTY OF <u>SANTA CLARA</u> )
On 2-5-03 before me, Judith Featherstone, personally appeared William H. Kao
personally known to me – <b>OR-</b> proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
WITNESS my hand and official seal.
Notary Public in and for said County and State



WITNESS my hand at Sau Jose, CA.
this _Fr+th day of _ +ebruary, 2003.
DAVID C. NOICE
STATE OF CALIFORNIA ) ) ss COUNTY OF SANTA CLARA )
On 2-5-03 before me, <u>Judith Featherstone</u> , personally appeared <u>David C. Noice</u>
personally known to me – <b>OR</b> - proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
WITNESS my hand and official seal.
Notary Public in and for said County and State
JUDITH FEATHERSTONE Commission # 1234751 Notary Public - California Santa Clara County My Comm. Expires Sep 16, 2003

**RECORDED: 03/06/2003** 

PATENT REEL: 013814 FRAME: 0504