PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ZHUO LI	10/12/2016
WEN-HAO LIU	10/12/2016
CHARLES ALPERT	10/11/2016
BRIAN WILSON	10/11/2016

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City:	SAN JOSE		
State/Country:	CALIFORNIA		
Postal Code:	95134		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15293010

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NAME OF SUBMITTER: ERIC L. SOPHIR

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DATE SIGNED: 10/13/2016

Total Attachments: 2

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PATENT REEL: 040010 FRAME: 0076

EPAS ID: PAT4096450

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PATENT REEL: 040010 FRAME: 0077

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor hereby sells, assigns, transfers to CADENCE DESIGN SYSTEMS, INC., a Delaware corporation having a principal place of business at 2655 SEELY AVENUE, SAN JOSE, CALIFORNIA 95134 ("ASSIGNEE"), and its successors, assigns, and legal representatives, all rights, title and interest in and to his/her invention relating to:

TITLE: SYSTEMS AND METHODS FOR SYMMETRIC H-TREE CONSTRUCTION WITH COMPLICATED ROUTING BLOCKAGES

in any form or embodiment thereof, in the United States and all other countries, including applications for patents in all countries throughout the world, as set forth in his/her United States Patent Application (check one):

executed	l concurrently	herewith,				
	011					
Serial No	3.	, filed on				
PCT Inte	ernational Ap	plication $\widetilde{\mathbb{N}}$	o.:	, file	d on	

including any and all applications claiming priority to said applications, and to any provisional from which priority is claimed, divisions, continuations, renewal, substitute or reissue thereof and to any and all Letters Patent of the United States and all other countries, including any and all utility models, and design registrations, which may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made;

Each of the undersigned hereby authorizes and requests the issuing authority to issue any and all such Letters patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he has the full and unencumbered right to sell, assign, and transfer the interests herein sold, assigned, and transferred and that he has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees he will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him relating to said invention or patent application and that, without further remuneration, he will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States or other countries for said invention; and

Each of the undersigned hereby grants the attorneys associated with Customer Number 132060 the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment, including the power to insert on this assignment the application number and filing date of said application when known.

PATENT REEL: 040010 FRAME: 0078

Full Name of First Inventor:	Zhuo LI			
(given name, middle initial, family name);				
Inventor's Signature // C/4	Execution Date /0/12/2/16			
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Inventor's Signature Wen-Hao Liu	Execution Date 10/12/2016			
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Full Name of Fourth Inventor:	Brian WILSON			
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PATENT REEL: 040010 FRAME: 0079

RECORDED: 10/13/2016