

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3015034

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	KEXIN LUO	05/13/2014
	KAI ZHOU	05/13/2014
	SHENGGUO CAO	05/13/2014
	LINGFENG YUE	05/13/2014
	FANQING CHU	05/13/2014
	SHEN YU	05/13/2014
	ZHI WU	05/13/2014
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	SILICON IMAGE, INC.	
<b>Street Address:</b>	1140 EAST ARQUES AVENUE	
<b>City:</b>	SUNNYVALE	
<b>State/Country:</b>	CALIFORNIA	
<b>Postal Code:</b>	94085	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	14383865
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(650)938-5200	
<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>Phone:</b>	650-335-7291	
<b>Email:</b>	lburshteyn@fenwick.com	
<b>Correspondent Name:</b>	DOHYUN AHN	
<b>Address Line 1:</b>	801 CALIFORNIA STREET	
<b>Address Line 2:</b>	FENWICK & WEST LLP	
<b>Address Line 4:</b>	MOUNTAIN VIEW, CALIFORNIA 94041	
<b>ATTORNEY DOCKET NUMBER:</b>	30850-25761	
<b>NAME OF SUBMITTER:</b>	DOHYUN AHN	
<b>SIGNATURE:</b>	/Dohyun Ahn/	
<b>DATE SIGNED:</b>	09/09/2014	

PATENT

**Total Attachments: 3**

source=25761\_executed\_Assignment#page1.tif

source=25761\_executed\_Assignment#page2.tif

source=25761\_executed\_Assignment#page3.tif

## 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 **Silicon Image, Inc.**, a Delaware corporation, having a place of business at 1140 East Arques Avenue, Sunnyvale, CA 94085, United States of America ("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 non-provisional application filed under 35 U.S.C. § 111(a), international application filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application filed under 35 U.S.C. § 371 ("APPLICATION"):

- U.S. Application No. 14/383,865, entitled "**Techniques for Fractional-N Phase Locked Loops**," which is a National Phase Entry of International Application No. PCT/CN2014/077643, filed on May 16, 2014

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.

Title: Techniques for Fractional N-Phase Locked Loops  
Filed: September 8, 2014  
Application No.: 14/383,865

---

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.

By signing below, INVENTOR further attests to the following:

- The APPLICATION was made or authorized to be made by INVENTOR.
- INVENTOR believes that INVENTOR is the original inventor or an original joint inventor of a claimed invention in the APPLICATION.

INVENTOR hereby acknowledges that any willful false statement made in this document is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Name and Signature

Kexin Luo

Kexin Luo

Date of Signature

2014-5-13

Name and Signature

Kai Zhou

Kai Zhou

Date of Signature

2014-5-13

Name and Signature

Shengguo Cao

Shengguo Cao

Date of Signature

2014-5-13

Name and Signature

Lingfeng Yue

Lingfeng Yue

Date of Signature

5/13/2014

Name and Signature

Fangqing Chu

Fangqing Chu

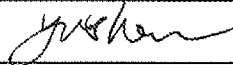
Date of Signature

5/13/2014

Title: Techniques for Fractional N-Phase Locked Loops  
Filed: September 8, 2014  
Application No.: 14/383,865

---

Name and Signature

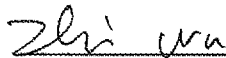


Shen Yu

Date of Signature

05/13/2014

Name and Signature



Zhi Wu

Date of Signature

2014-5-13