

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3799484

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
WEIHONG QIU	08/30/2015
SHANGYANG XIAO	04/04/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	FAIRCHILD SEMICONDUCTOR CORPORATION
<b>Street Address:</b>	3030 ORCHARD PARKWAY
<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>	15079924
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(603)668-2970
<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>	603 668-6560
<b>Email:</b>	ecullity@gtpp.com
<b>Correspondent Name:</b>	EDMUND P. PFLEGER
<b>Address Line 1:</b>	55 SOUTH COMMERCIAL ST. B14
<b>Address Line 2:</b>	GROSSMAN TUCKER PERREAULT & PFLEGER PLLC
<b>Address Line 4:</b>	MANCHESTER, UNITED STATES 03101
<b>ATTORNEY DOCKET NUMBER:</b>	FSC75180
<b>NAME OF SUBMITTER:</b>	EDMUND P. PFLEGER
<b>SIGNATURE:</b>	/Edmund P. Pflieger/
<b>DATE SIGNED:</b>	03/24/2016
<b>Total Attachments: 7</b>	
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## ASSIGNMENT OF THE UNITED STATES PATENT APPLICATION

WHEREAS, I/WE, **Weihong QIU** and **Shangyang XIAO** made certain new and useful inventions and improvements for which I/We filed, or will be filing, an application for Letters Patent of the United States, identified as U.S. patent application serial number 62/137,478 filed on March 24, 2015, which application is entitled:

### ARTIFICIAL RIPPLE MODULATION CONTROL CIRCUITRY

AND, WHEREAS, I/We hereby authorize and request an attorney associated with Customer Number 13774 to insert on the designated lines above, the filing date and application number of said application when known;

AND, WHEREAS, **Fairchild Semiconductor Corporation**, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at **3030 Orchard Parkway, San Jose, California 95134**, (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I/We have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed under the Patent Cooperation Treaty, in any regional patent offices and in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there

from; and I/We do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letter Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, I/We do hereby agree that I/We and my/our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to me/us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be;

AND, furthermore, I/We covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me/us.

AND, as a named inventor, I hereby declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims, and I am aware of the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 C.F.R. § 1.56.

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

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30 day of August, 2015.



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**Weihong QIU**

IN TESTIMONY WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

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**Shangyang XIAO**

**EMPLOYMENT AGREEMENT**

In consideration of my employment (or continued employment, as the case may be) by Fairchild Semiconductor Corporation, its affiliates, divisions, subsidiaries, successors and assigns (hereinafter referred to as "the Company"), I hereby acknowledge and agree as follows:

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

E. INVENTIONS

1. I will disclose promptly to the Company, in writing, all inventions, ideas, developments, materials and discoveries, including software products, which during the period of my employment with the Company I have or which I may conceive, develop, make or reduce to practice, either solely or jointly with others (collectively "make or made") whether patented, the subject of a patent application, patentable or not, including but not limited to processes, methods, formulae, software, techniques, as well as improvements thereof or know-how related thereto, that:
  - a. relate to any subject matter with which my work for the Company may relate or be concerned, whether or not made during normal business hours; or
  - b. relate to, or are connected with the business, products or projects of the company; or
  - c. involve the use of the Company's time, material, facilities or proprietary information.

The foregoing are collectively referred to herein as the "Inventions".

[REDACTED]

2. I will keep complete and current written records of all Inventions I make during the period of time I am employed by Company properly witnessed for use as Invention records and to submit such records to Company when requested or upon termination of my employment with Company.
3. I agree that all Inventions which I make during the period of time I am employed by Company are the sole and exclusive property of Company and I will assign, and do hereby assign, my entire right, title and interest in such Inventions to Company. Company's ownership and the foregoing assignment shall apply, without limitation, to all rights under the patent, copyright, and trade secret laws of any jurisdiction relating to the Inventions.
4. If for any reason under any law of any jurisdiction, including without limitation Section 2870 of the Labor Code of the State of California, all or any portion of the foregoing grant of rights is held unenforceable, I agree to grant, and do hereby grant to the Company, a worldwide, irrevocable, fully paid up right and license in perpetuity with the right to sublicense others, to practice the Invention and to make, have made, use, offer for sale, sell, lease or otherwise dispose of, without restriction, any products incorporating the Invention.
5. At all times during and after my employment by the Company, and at no expense to me, I agree to execute and deliver such assignments, affidavits, oaths and other documents, and to perform such other acts (including appearance as a witness in any contest) as may be requested by the Company to obtain or uphold, for the benefit of the Company, patents and/or copyrights in any and all countries for all Inventions, whether or not I am an inventor thereof, said Inventions to be and remain the property of the Company or its nominees. In the event that the Company is unable for any reason whatsoever to secure my signature to any document reasonably necessary or appropriate for any of the foregoing purposes (including renewals, extensions, continuations, divisions or continuations in part) in a timely manner, I hereby irrevocably

designate and appoint the Company and its duly authorized officers and agents as my agents and attorneys-in-fact to act for me and on my behalf, but only for the purpose of executing and filing any such document and doing all other lawfully permitted acts to accomplish the foregoing purposes with the same legal force and effect as if executed by me.


6. I agree to abide by the foregoing provisions in all respects; specifically, that I will not withhold Inventions conceived or reduced to practice during employment for my own use after employment, that I will not impart to subsequent employers any Confidential Information or trade secrets, and that I will not induce or encourage other employees of the Company to violate the terms of their Employment Agreements.
7. Are you the inventor of any *published* and/or *issued* patent applications? (Check One) Yes  No
8. Are you the inventor of any *unissued* and *unpublished* patent applications? (Check One) Yes  No
9. I agree that should a situation arise in which I believe that my job duties may lead to the use of technology claimed or sought to be claimed in a patent issued to or applied for or under preparation naming me as an inventor, or of which I am otherwise aware, I will notify my supervisor and the legal department immediately. I understand that patent applications that are unissued and unpublished may be trade secrets, and agree to abide by all provisions in Section D in notifying my supervisor and the legal department.
10. I agree that if the Company incorporates into a product, process, a machine or otherwise uses an Employee Owned Invention, I agree to grant, and do hereby grant to the Company, a royalty-free, worldwide, irrevocable, fully paid up right and license in perpetuity, to practice the Employee Owned Invention and to make, have made, use, offer for sale, sell, lease or otherwise dispose of any products incorporating the Employee Owned Invention, without restriction, to the extent of my ownership or interest. This license is transferable in whole or in part with the sale of all or substantially all of the business or the assets of the business to which the Employee Owned Invention relates.

#### F. MISCELLANEOUS

- Injunctive Relief.** Because my breach of this Agreement may cause the Company irreparable harm which cannot adequately be compensated with money, I agree that the Company will be entitled to injunctive relief to enforce this Agreement, in addition to damages and other available remedies.
- Amendments.** This Agreement may not be amended except by an instrument in writing signed by both parties. This Agreement shall be binding on the heirs, executors, administrators, and other legal representatives and assigns of Employee, and is for the benefit of the Company and its successors and assigns.
- Governing Law.** This agreement shall be governed by the laws of the State of Maine.
- Severability.** If a court finds any provision of this Agreement invalid or unenforceable as applied to any circumstance, the remainder of this Agreement shall be interpreted so as best to effect the intent of the parties. The parties further agree that any provision found to be invalid or unenforceable shall be replaced with a provision that will achieve, to the extent possible, the purpose of the void or unenforceable provision.



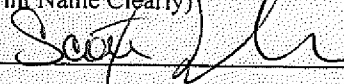
5. **Entire Understanding.** This Agreement expresses the entire understanding of the parties about the described subject matter.

  
\_\_\_\_\_  
Signature of Employee

Dated: 4/4/2011

SHANGYANG XIAO  
\_\_\_\_\_  
Employee (Print Name Clearly)

at: Fairchild - STC

Witness:   
\_\_\_\_\_