

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Gopinath Balakrishnan</td> <td>03/14/2013</td> </tr> <tr> <td>Tz-Yi Liu</td> <td>03/14/2013</td> </tr> <tr> <td>Henry Zhang</td> <td>03/15/2013</td> </tr> </tbody> </table>		Name	Execution Date	Gopinath Balakrishnan	03/14/2013	Tz-Yi Liu	03/14/2013	Henry Zhang	03/15/2013
Name	Execution Date								
Gopinath Balakrishnan	03/14/2013								
Tz-Yi Liu	03/14/2013								
Henry Zhang	03/15/2013								
RECEIVING PARTY DATA									
Name:	SanDisk 3D LLC								
Street Address:	951 SanDisk Drive								
City:	Milpitas								
State/Country:	CALIFORNIA								
Postal Code:	95035								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13839366</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13839366				
Property Type	Number								
Application Number:	13839366								
CORRESPONDENCE DATA									
Fax Number:	4154894150								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
Phone:	415-489-4100								
Email:	wgoy@vierramagen.com								
Correspondent Name:	David E. Cromer								
Address Line 1:	Vierra Magen Marcus LLP								
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Address Line 4:	San Francisco, CALIFORNIA 94105								
ATTORNEY DOCKET NUMBER:	SAND-01608US0 (SDUF)								
NAME OF SUBMITTER:	David E. Cromer								
Total Attachments: 4 source=1608-assignment-signed#page1.tif source=1608-assignment-signed#page2.tif source=1608-assignment-signed#page3.tif source=1608-assignment-signed#page4.tif									

CH \$40.00 13839366

JOINT TO CORPORATE ASSIGNMENT

WHEREAS, the undersigned Inventors:

- (1) Gopinath Balakrishnan, a resident of Santa Clara, California;
- (2) Tz-Yi Liu, a resident of Palo Alto, California; and
- (3) Henry Zhang, a resident of Saratoga, California,

have invented certain new and useful improvements in:

PROGRAM CYCLE SKIP EVALUATION BEFORE WRITE OPERATIONS IN NON-VOLATILE
MEMORY

and have executed a declaration for an application for a United States Patent disclosing and identifying the invention, the declaration being executed on 3/14/13 & 3/15/13.

WHEREAS SanDisk 3D LLC. (hereinafter termed "Assignee"), a corporation of the State of Delaware, having a place of business at 951 SanDisk Drive, Milpitas, CA 95035, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignee:

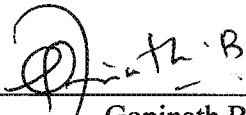
1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

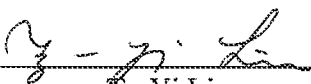
3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

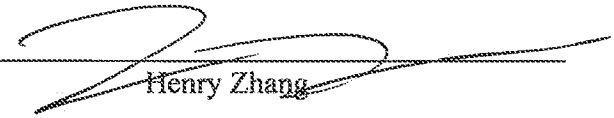
Date: 03/14/2013

(1)  _____
Gopinath Balakrishnan

Date: 3/14/2013

(2) 
Iz-Yi Liu

Date: 3/15/13

(3) 
Henry Zhang