

PATENT ASSIGNMENT

Electronic Version v1.1

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| 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>David Chang-Cheng Yu</td><td>09/17/2008</td></tr><tr><td>Xiao Luo</td><td>09/17/2008</td></tr><tr><td>Jia-Hwang Chang</td><td>09/17/2008</td></tr></tbody></table> | Name                | Execution Date | David Chang-Cheng Yu | 09/17/2008 | Xiao Luo | 09/17/2008 | Jia-Hwang Chang | 09/17/2008 |  |
| Name  | Execution Date      |                |                      |            |          |            |                 |            |  |
| David Chang-Cheng Yu  | 09/17/2008          |                |                      |            |          |            |                 |            |  |
| Xiao Luo  | 09/17/2008          |                |                      |            |          |            |                 |            |  |
| Jia-Hwang Chang   | 09/17/2008          |                |                      |            |          |            |                 |            |  |
| RECEIVING PARTY DATA  |                     |                |                      |            |          |            |                 |            |  |
| Name:   | Grandis Inc.        |                |                      |            |          |            |                 |            |  |
| Street Address:   | 1123 Cadillac Court |                |                      |            |          |            |                 |            |  |
| 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>12210126</td></tr></tbody></table>  | Property Type       | Number         | Application Number:  | 12210126   |          |            |                 |            |  |
| Property Type   | Number              |                |                      |            |          |            |                 |            |  |
| Application Number:   | 12210126            |                |                      |            |          |            |                 |            |  |
| CORRESPONDENCE DATA   |                     |                |                      |            |          |            |                 |            |  |
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| Email: kzf@fr.com   |                     |                |                      |            |          |            |                 |            |  |
| Correspondent Name: Bing Ai   |                     |                |                      |            |          |            |                 |            |  |
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| ATTORNEY DOCKET NUMBER:   | 19340-0020001       |                |                      |            |          |            |                 |            |  |
| NAME OF SUBMITTER:  | Kelly M. Smith      |                |                      |            |          |            |                 |            |  |
| Total Attachments: 1<br>source=19340-0020001Assignment1#page1.tif   |                     |                |                      |            |          |            |                 |            |  |

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REEL: 021625 FRAME: 0957

ASSIGNMENT

For valuable consideration, we, David Chang-Cheng Yu, of Pleasanton, California; Xiao Luo, of Cupertino, California; Jia-Hwang Chang, of Saratoga, California; hereby assign to GRANDIS INC., a corporation of Delaware, having a place of business at Corporate Headquarters, 1123 Cadillac Court, Milpitas, CA 95035, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions, improvements and technologies which are described in an application for United States Patent signed by us, entitled PROGRAMMABLE AND REDUNDANT CIRCUITRY BASED ON MAGNETIC TUNNEL JUNCTION (MTJ), filed September 12, 2008, and assigned U.S. Serial Number 12/210,126; this assignment including said application, any and all United States and foreign patents, including but not limited to continuation, divisional, continuation-in-part, reexamination, reissue, utility models, and design registrations based on said application or granted for any of said inventions, improvements, and technologies, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

DATE: 9/17/08

David Chang-Cheng Yu  
DAVID CHANG-CHENG YU

DATE: 9/17/08

Xiao Luo  
XIAO LUO

DATE: 9-17-08

Jia-Hwang Chang  
JIA-HWANG CHANG

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