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U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office



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To the Director of the U.S. Patent and Trademark Office

Documents or the new address(es) below.

**1. Name of conveying party(ies)**

HITACHI EUROPE LIMITED

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) 20 May 2008

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Joint Research Agreement  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other

**2. Name and address of receiving party(ies)**

Name: Hitachi, Ltd.

Internal Address:

Street Address: 6-6, Marunouchi 1-chome

Chiyoda-ku, Tokyo, JAPAN

City:

State:

Country:

Zip:

Additional name(s) & address(es) attached? ☐ Yes ☒ No

**4. Application or patent number(s):**

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

6,574,143  
6,771,012

Additional numbers attached? ☐ Yes ☒ No

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: Daniel G. Shanley

Internal Address: KENYON & KENYON LLP

Street Address: 1500 K Street, N.W., Suite 700

City: Washington

State: DC

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Phone Number: 202-220-4200

Fax Number: 202-220-4201

Email Address: DShanley@Kenyon.com

**6. Total number of applications and patents involved: 2**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 80.00**

- ☐ Authorized to be charged by credit card  
☒ Authorized to be charged to deposit account  
☐ Enclosed  
☐ None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers

Expiration Date

b. Deposit Account Number 11-0600

Authorized User Name KENYON & KENYON LLP

**9. Signature:**

*Shawn W. O'Dowd*

Signature

17 June 2008

Date

Shawn W. O'Dowd

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

3

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

06/19/2008 DBYRNE 00000008 110600 6574143  
01 FC:8021 88.00 DA

PATENT  
REEL: 021127 FRAME: 0092

## ASSIGNMENT

**WHEREAS** Hitachi Europe Limited (hereinafter, "ASSIGNOR") is a corporation organized under the laws of the United Kingdom, and having an office at Whitebrook Park, Lower Cookham Road Maidenhead, Berkshire, SL6 8YA, United Kingdom and presently owns and controls the following U.S. patents (hereinafter, the "PATENTS"):

**U.S. Patent No. 6,574,143 - Memory Device Using Hot Charge Carrier Converters**

**U.S. Patent No. 6,771,012 - Apparatus for Producing a Flux of Charge Carriers**

**WHEREAS** Hitachi, Ltd. is a corporation organized under the laws of Japan and has an office at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan (hereinafter, "ASSIGNEE").

**NOW THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby

sells, assigns, and transfers to ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the PATENTS, and all divisional, continuing, substitute, renewal, reissue, reexamined and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of the PATENTS; and

agrees that ASSIGNEE may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, ASSIGNEE, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, reexamined and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to ASSIGNEE, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist ASSIGNEE, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title



to said improvements, and all applications for patents and all patents on said improvements, in ASSIGNEE, its successors, assigns, and legal representatives.

This Assignment shall be effective as of the date of execution of this document.

IN WITNESS WHEREOF, a duly authorized representative of the ASSIGNOR has executed this Assignment:

Hitachi Europe Limited

By: 

Date: 20 MAY 2008

Name: Hideyuki ARIYASU

Title: Managing Director, Hitachi Europe Limited