04-14-2003 cket No.: SLA0645 FORM PTO-1595 (Modified) U.S. Department of Commerce Patent and Trademark Office OMB No 0651-0027 (exp. 5/31/2002) -31-03 To the Honorable Commissioner of range 102419117 ginal documents or copies thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Sheng Teng Hsu Name: Sharp Laboratories of America, Inc Internal Address: Additional name(s) of conveying party(ies) ___ Yes X No 3. Nature of conveyance: Street Address: 5750 NW Pacific Rim Blvd X Assignment Merger Security Agreement ___ Change of Name Camas, WA 98607 City, State and ZIP: Other Additional name(s) & address(es) attached? __ Yes X No **Execution Date:** March 31, 2003 4. Application number(s) or registration number(s): March 31, 2003 If this document is being filed together with a new application, the execution date of the application is: 10,404292 A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? Yes X No 5. Name and address of party to whom correspondence concerning 1 6. Total number of applications and patents involved: document should be mailed: Matthew D. Rabdau, Patent Attorney Name: Enclosed - Any excess or insufficiency should be Internal Address: Registration No. 43,026 credited or debited to deposit account Sharp Laboratories of America, Inc. \mathbf{X} Authorized to be charged to deposit account 8. Deposit Account number: Street Address: 5750 NW Pacific Rim Blv /11/2003 TDIAZ1 00000222 191457 10404292 19-1457 FC+8021 40) 00 CH (Attach duplicate copy of this page if paying by deposit account) City, State and ZIP: Camas, WA 98607 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. March 31, 2003 Matthew D. Rabdau, Reg. No. 43,026 Name of Person Signing Date Signature Total number of pages including cover sheet, attachments, and document: Mail documents to be recorded with required coversheet to:

ASSIGNMENT

WHEREAS, the undersigned Sheng Teng Hsu, a resident of Camas, WA, (hereinafter termed "Inventor") has invented certain new and useful improvements in:

SHARED BIT LINE CROSS-POINT MEMORY ARRAY INCORPORATING P/N JUNCTIONS AND METHOD

and has executed a declaration or oath for an application for a United States patent disclosing and identifying the invention:

| X | Declaration executed on March 31, 2003; |
|---|---------------------------------------------------------------------------------|
| | or |
| | Having been previously filed and assigned Serial Number and filing date; and |

WHEREAS Sharp Laboratories of America, Inc., a corporation of the State of Washington, (hereinafter termed "Assignee"), having a place of business at 5750 NW Pacific Rim Boulevard, Camas, State of Washington, 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 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 said Inventor to have been received in full from said Assignee:

1. Said Inventor hereby sells, assigns, transfers, and conveys unto 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 and all countries of the world for patents, certificates of inventions or other government 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)

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PATENT REEL: 013937 FRAME: 0665 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 Inventor hereby covenants and agrees 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 Inventor 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 application for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (a) for legal proceedings involving said invention and any applications therefore 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 Inventor 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 Inventor, said Inventor's heirs, legal representatives and assigns.
- 4. Said Inventor hereby warrants and represents that said Inventor has not entered and will not enter into any assignment, contract, or understanding in conflict with this assignment.

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| (1) Shanding Klau Shang Tang Hsu (Signature) | 03/31/03 | |
|-------------------------------------------------|----------|--|
| Sheng Teng Hsu (Signature) | (Date) | |

IN WITNESS WHEREOF, the said Inventor has executed this Assignment on the

date given below:

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