Name: Sharp Kabushiki Kaisha  
Address: 22-22, Nagaikacho, Abeno-kum, Osaka-shi
City: Osaka  
State/Prov.:  
Country: JAPAN  
ZIP: 545-8522

Nature of conveyance:  
- [ ] Assignment  
- [x] Merger  
- [ ] Security Agreement  
- [ ] Change of Name  
- [ ] Other

Execution Date: 12/24/2003 (all inventors)

Application number(s) or patent numbers(s):  
10/756,117  
Filing date: January 12, 2004

Name and address of party to whom correspondence concerning document should be mailed:  
Name: David A. Tucker  
Registration No.: 27,840  
Address: Edwards & Angell, LLP  
P.O. Box 9169  
Customer 21,874  
City: Boston  
State/Prov.: MA  
Country: USA  
ZIP: 02209

Total number of applications and patents involved: 1

Total fee (37 CFR 3.41): $40.00  
- Enclosed - Any excess or insufficiency should be credited or debited to deposit account
- Authorized to be charged to deposit account

Deposit account number: 04-1105 (Attach duplicate copy of this page if paying by deposit account)

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.

David A. Tucker
Name of Person Signing  
Signature

Mail documents to be recorded with required cover sheet information to:  
Mail Stop Assignment Recordation Services  
Director of the United States Patent and Trademark Office  
P.O. Box 1450, Alexandria, VA 22313-1450

Reel: 014988  Frame: 0983

700103764
Docket No.

ASSIGNMENT

I/We, Yasushi MATSUMOTO et al. (inventor), for good and valuable consideration from Sharp Kabushiki Kaisha (assignee), having its principal place of business at 22-22, Nagaika-cho, Abeno-ku, Osaka-shi, Osaka 545-8522 Japan (address) hereinafter called the Assignee, receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in, to and under an application for Letters Patent of the United States Serial No. filed on FORMING APPARATUS (title) priority rights ensuing therefrom, and the inventions and any of them therein set forth and described, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor, together with the right to apply for such Letters Patent.

And for the above consideration I/We agree promptly upon request of the Assignee, its successors or assigns, to execute and deliver without further compensation any power of attorney, assignment, application, whether original, divisional, continuation or reissue, or other papers which may be necessary or desirable fully to secure to the Assignee, its successors and assigns, the inventions and any of them described in said application and all patent rights therein, in the United States and in any country foreign thereto.

The undersigned agree(s) to furnish all pertinent facts and documents relating to said application, said invention and said patent(s) as may be known and accessible to the undersigned, and will testify as to the same in any interference or litigation related thereto, and will promptly execute and deliver to Assignee any and all papers, instruments or affidavits necessary or desirable to apply for, obtain, maintain or enforce said application or said patent(s) in connection with any interference which may be declared, and any litigation concerning this application or any continuation, division or reissue thereof or Patent(s) or reissue patent(s) issued thereon, and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference or litigation.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he or she has the full right to
convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants Dike, Bronstein, Roberts & Cushman the Intellectual Property Group of Edwards & Angell, LLP of P.O. Box 9169, Boston, MA 02209, U.S.A. the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark, Office for recordation of this document.

Date: December 24, 2003
Signature of Inventor: Yasushi Matsutomo
Name: Yasushi MATSUTOMO

Date: December 24, 2003
Signature of Inventor: Yoshiaki Hiramoto
Name: Yoshiaki HIRAMOTO

Date: December 24, 2003
Signature of Inventor: Susumu Murakami
Name: Susumu MURAKAMI

Date: December 24, 2003
Signature of Inventor: Hideshi Izumi
Name: Hideshi IZUMI

Date: December 24, 2003
Signature of Inventor: Yoshio Inakura
Name: Yoshio IWAKURA

Date: December 24, 2003
Signature of Inventor: Motokazu Nakao
Name: Motokazu NAKAO

Date: December 24, 2003
Signature of Inventor: Yoshiyuki Nagai
Name: Yoshiyuki NAGAI

Date: December 24, 2003
Signature of Inventor: Shigeru Yoshida
Name: Shigeru YOSHIDA
DOCUMENT ID NO.: 102652602

THE ENCLOSED DOCUMENT HAS BEEN EXAMINED AND FOUND NON-RECORDABLE BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. THE REASON(S) FOR NON-RECORDATION ARE STATED BELOW. DOCUMENTS BEING RESUBMITTED FOR RECORDATION MUST BE ACCOMPANIED BY A NEW COVER SHEET REFLECTING THE CORRECT INFORMATION TO BE RECORDED AND THE DOCUMENT ID NUMBER REFERENCED ABOVE.

THE ORIGINAL DATE OF FILING OF THIS ASSIGNMENT DOCUMENT WILL BE MAINTAINED IF RESUBMITTED WITH THE APPROPRIATE CORRECTION(S) WITHIN 30 DAYS FROM THE DATE OF THIS NOTICE AS OUTLINED UNDER 37 CFR 3.51. THE RESUBMITTED DOCUMENT MUST INCLUDE A STAMP WITH THE OFFICIAL DATE OF RECEIPT UNDER 37 CFR 3. APPLICANTS MAY USE THE CERTIFIED PROCEDURES UNDER 37 CFR 1.8 OR 1.10 FOR RESUBMISSION OF THE RETURNED PAPERS, IF THEY DESIRE TO HAVE THE BENEFIT OF THE DATE OF DEPOSIT IN THE UNITED STATES POSTAL SERVICE.

SEND DOCUMENTS TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231. IF YOU HAVE ANY QUESTIONS REGARDING THIS NOTICE, YOU MAY CONTACT THE INDIVIDUAL WhOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723.

1. THE COVER SHEET SUBMITTED FOR RECORDING DOES NOT ADEQUATELY IDENTIFY THE PROPERTY NUMBER(S). THE APPLICATION NUMBER AND SERIES CODE OR THE SERIAL NUMBER AND FILING DATE IS REQUIRED.
Gentlemen:

Enclosed is a copy of the Assignment for the above case, the Assignment Recordation Cover Sheet and your Notice of Non-Recordation of Document.

The enclosed documents did not originally include the Serial No. and filing date because the Assignment was filed with the application.

Pursuant to a telephone conversation with Dorothy Riley of your office today, we have inserted the Serial No and filing date of this application into the Assignment Recordation Cover Sheet originally filed prior to sending it to you by facsimile herewith for appropriate recordation.

Your early attention to the completion of the recordation of the enclosed Assignment document will be greatly appreciated.

Very truly yours,

[Signature]

David A. Tucker

Enclosure

DAT/kag/454214