03-18-2002



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U.S. DEPARTMENT OF COMMERCE

VER SHEET

Patent and Trademark Office Docket No. 2045522022700

To the Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. Name of conveying party(ies): 2. Name and address of receiving party(ies): Yasuaki HIRANO Name: SHARP KABUSHIKI KAISHA **区** Individual □ Association Internal Address: ☐ General Partnership ☐ Limited Partnership Street Address: 22-22, Nagaike-sho, Abeno-ku ☐ Corporation-State ☐ Other City: Osaka, State: Japan Additional name(s) of conveying party(ies) attached? □Yes ☑No Additional name(s) & address(es) attached? □ Yes ☑ No 3. Nature of conveyance: **⋈** Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Other: Execution Date: February 7, 2002 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: February 7, 2002 Patent Application No.(s) Patent No.(s) Additional numbers attached?

Yes

No Name and address of party to whom correspondence concerning 6. Total number of applications and patents involved: 1 document should be mailed: 7. Total fee (37 C.F.R. § 3.41): \$40.00 Barry E. Bretschneider Morrison & Foerster LLP Enclosed 2000 Pennsylvania Avenue, N.W. Authorized to be charged to deposit account, referencing Washington, D.C. 20006-1888 Attorney Docket 204552022700 8. Deposit account number: 03-1952 The Commissioner is hereby authorized to charge any fees under 37 C.F.R. § 1.21 that may be required by this paper, or to credit any overpayment to Deposit Account No. 03-1952 DO NOT USE THIS SPACE 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. Name: Barry E. Bretschneider February 27, 2001 Registration No: 28,055 Total number of pages comprising cover sheet, attachments and document: 3 03/18/2002 AAHMED1 00000013 031952 10083408 01 FC 581 40.00 CH Mail documents to be recorded with required cover sheet information to: U.S. Patent and Trademark Office Office of Public Records **Box Assignments** Crystal Gateway 4, Room 335 Washington, D.C. 20231 dc-304473

> PATENT REEL: 012671 FRAME: 0523

MORRISON & FOERSTER LLP

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby assign(s), transfer(s) and set(s) over to:

SHARP KABUSHIKI KAISHA of 22-22, Nagaike-sho, Abeno-ku, Osaka, Japan

(hereinafter designated as the "ASSIGNEE"), its successors and assigns, the entire right, title, and interest for the United States in the invention, and all applications for patent and any Letters Patent which may be granted therefor, including said application, and all United States Letters Patent which may be granted thereof, and all divisions, reissues, continuations and extensions thereof, the said interest being the entire ownership of said Letters Patent when granted to be held by said ASSIGNEE, its successors, assigns or their legal representatives, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been and enjoyed by Assignor(s) if this assignment had not been made, the application being known by the title:

BOOSTER CIRCUIT CAPABLE OF ACHIEVING A STABLE PUMP OPERATION FOR NONVOLATILE SEMICONDUCTOR MEMORY DEVICE

Attorney Docket No.:

for which the undersigned has/have executed an application for patent in the United States of America on the same day herewith. Where this instrument is not filed concurrently with the application, the following identifying information may be added after execution:

Serial No.:

Filing Date:

1. The undersigned hereby agree(s) to sign and execute any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extension of interference proceedings, or otherwise to secure the title thereto to the ASSIGNEE.

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PATENT REEL: 012671 FRAME: 0524

- 2. The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property of similar agreements.
- 3. The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the ASSIGNEE.
- 4. The undersigned hereby authorize(s) and request(s) the Commissioner of Patents in the United States to issue any and all Letters Patent resulting from said application or any division or divisions or continuing applications thereof to the said ASSIGNEE.
- 5. The undersigned hereby grant(s) to the firm of Morrision & Foerster LLP 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 United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREBY, executed by the undersigned on the date(s) opposite the undersigned name(s).

Feb. 7, 2002	Jamaki Hrana
Date	Typed Name: Yasuaki HIRANO
Date	Typed Name:
•	•
Date	Typed Name:
Date	Typed Name:
Date	Typed Name:
This assignment may be signed l witnesses who also sign here:	before a U.S. Notary Public or before at least two
Feb. 7, 2002	Sawako Hattori
Date	Typed Name: Sawako HATTORI
Feb. 7, 2002	Faction Stok
Date	Typed Name: Naoko Itoh
	Page 2 of 2

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RECORDED: 02/27/2002

PATENT REEL: 012671 FRAME: 0525