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Form PTO-1595 OCT 3 0 2001 U.S. DEPARTMENT OF COMMERCE 1-31-92 Patent and Trademark Office RECORDATION FORM COVER SHEET PATENTS ONLY To the Director - U.S. Patent and Trademark Office. Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies)? Manabu NOHARA, Takehiko SHIODA, Yasuteru PIONEER CORPORATION KODAMA, Masami SUZUKI, Hiroto INOUE, Katsunori 4-1, Meguro 1-chome, Meguro-ku, Tokyo, Japan ARAKAWA, Satoshi ODAGAWA, Osamu YAMAZAKI, Masahiro OKAMURA and Takayuki AKIMOTO Additional name(s) of conveying party(ies) attached? 11-02-2001 □ yes 2 no 3. Nature of Conveyance: 101891911 ☑ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Names ☐ Other Additional name(s) & address(es) attached? Execution Date: August 22, 7, 7, 7, 8, 24, 7, 8, 7 and 21, 1 no □ yes 2001 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: A. Patent Application No.(s)/Confirmation No.(s) B. Patent No.(s) 09/907.503 /5839 ☑ No Additional numbers attached? ☐ Yes 6. Total number of applications and registration involved: 5. Name and address of party to whom correspondence concerning document should be mailed: \$40.00 SUGHRUE MION, PLLC 7. Total Fee (37 CFR 3.41): 2100 Pennsylvania Avenue, N.W. ☑ Enclosed. Please charge any underpayment in Suite 800 connection with this Assignment to Deposit Account No. 19-4880. Washington, D.C. 20037-3213 ☐ Authorized to be charged to Deposit Account 8. Deposit Account No. 19-4880 DO NOT WRITE IN 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. October 30, 2001 Date TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT: 3 OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required cover sheet information to: Director - U.S. Patent and Trademark Office **Box Assignment** Washington, D.C. 20231

1/01/2001 DBYRHE 00000132 09907503

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PATENT REEL: 012291 FRAME: 0048

## ASSIGNMENT

In consideration of the sum of ten dollars (\$10.00) and other good and valuable consideration paid to each of the undersigned, the undersigned agree to assign, and hereby do assign, transfer, and set over to:

Pioneer Corporation

having the address:

4-1, Meguro 1-chome, Meguro-ku, Tokyo, Japan

(hereinafter designated as the "ASSIGNEE") the entire right, title, and interest for the United States and all foreign countries (including protection in foreign countries via the Patent Cooperation Treaty), in the invention, and all applications for patent and any Letters Patent which may be granted therefor, the application being known by the Title:

## MOBILE COMMUNICATION SYSTEM

for which application for Letters Patent of the United States was executed on even date herewith unless otherwise indicated below:

filed on July 18, 2001 ... serial No. 09/907,503

- 1. The undersigned agree to execute all papers necessary in connection with the application and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.
- 2. The undersigned agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the ASSIGNEE in every way possible in obtaining evidence and going forward with such interference.
- 3. The undersigned agree 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 or similar agreements.
- 4. The undersigned agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United states patent to the ASSIGNEE.

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5. The undersigned hereby authorize and request the commissioner of Patents in the Unite States and the appropriate national or regional authority in each foreign country to issue any and all Letters Patents resulting from said application or any division or divisions or continuing applications thereof to the said ASSIGNEE, as ASSIGNEE of the entire interest, and hereby covenants that they have full right to convey the entire interest herein assigned, and that they have not executed and will not execute, any agreement in conflict herewith.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned names.

The undersigned hereby authorize the firm of

SUGHRUE, MION, ZINN, MACPEAK & SEAS at the address of 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3202, U.S.A.

to insert hereon any further identification necessary or desirable for recordation of this document.

Aug. 22/2001	Manabu Nohara
Date	Typed Name: Manabu NOHARA
Date 7/2001	TAKEHIKO SHIODA
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**RECORDED: 10/30/2001**