FORM PTO-1595

12-30-1998



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

100935490 To the Honorable Commissioner of Patents and Tracemarks: riesse record and arriginal documents or copy thereof. Name of Conveying party(ies): Name and address of receiving party(ies) Hiroki SHINDE MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. Internal Address:____ Additional name(s) of conveying party(ies) attached? ___Yes _X_No 3. Nature of conveyance: Street Address 1006, Oaza-Kadoma, Kadoma-shi _X_ Assignment ___ Merger Osaka 571-8501 JAPAN ___ Security Agreement Change of Name ___ Other____ City:_____ State:____ ZIP:____ Execution Date: October 3. 1998 Additional name(s) and address(es) attached? ___Yes _X_No 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: October 3. 1998 B. Patent No.(s) A. Patent Application No.(s) Additional numbers attached:___Yes _X_No 5. Name and address of party to whom correspondence concerning 6. Total number of applications and patents involved: 1 document should be mailed: Bruce H. Bernstein 7. Total Fee (37 CFR 3.41).....\$\,\(\frac{40.00}{}\) Internal Address: P17351 _X_ Enclosed Authorized to be charged to deposit account Street Address: GREENBLUM & BERNSTEIN, P.L.C. 8. Deposit account number: 1941 Roland Clarke Place 19-0089 2/29/1998 PSTANBAC 00000096 09212586 (Attach duplicate copy of this page if paying City: Reston State: VA ZIP: 20191 4FC:581 by deposit account) 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. Bruce H. Bernstein Reg. No. 29,027 Signature Name of Person Signing Total number of pages including cover sheet, attachments and document: 3

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

ASSIGNMENT

WHEREAS, <u>Hiroki SHINDE</u>, a citizen of <u>Japan</u>, whose post office address is <u>5-26-24-202</u>, <u>Masukata</u>, <u>Tama-ku</u>, <u>Kawasaki-shi</u>, <u>Kanagawa 214-0032 Japan</u> hereinafter referred to as the ASSIGNOR, has invented a certain improvement relating to

DIGITAL FILTER, DIGITAL SIGNAL PROCESSING METHOD, AND COMMUNICATION APPARATUS

for which he has executed, on the same date as this assignment, executed an application for Letters Patent of the United States to be filed in the United States Patent and Trademark Office.

AND WHENAS, MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. organized and existing under the laws of Japan, whose post-office address is 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 Japan, hereinafter known as the ASSIGNEE, is desirous of acquiring the entire right, title and interest for the United States in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, and prolongations thereof.

NOW, THIS WITNESSETH that for and in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt whereof is hereby acknowledged. said ASSIGNOR hereby assigns, sells and transfers to said ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, for the United States including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, said ASSIGNEE and its assigns and legal representatives to have, hold, exercise and enjoy the said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues and prolongations thereof, with all die rights, powers, privileges, and advantages in any ways arising from or pertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, and prolongations thereof, for the use and benefit of said ASSIGNEE and its assigns and legal representatives in as ample and beneficial a manner to all intents and purposes as the said ASSIGNOR might or could have held and enjoyed the same, if this assignment had not been made.

> PATENT REEL: 9660 FRAME: 0063

AND said ASSIGNOR hereby agrees to execute all papers necessary to file applications in the United States for said invention and to assign the same to said ASSIGNEE, or any assignee acquiring title to said invention, and to execute any other papers that may be needed in connection with filing said application and securing Letters Patent thereon.

AND said ASSIGNOR authorizes and requests the Commissioner of Patents to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said ASSIGNEE, its assigns and legal representatives, in accordance herewith.

IN TESTIMONY WHEREOF, this assignment is executed by said ASSIGNOR, on the respective dates indicated below.

Hiroki SHINDE

RECORDED: 12/16/1998

Date

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