

O70119 R ET U.S. DEPARTMENT OF COMMERCE Form PTO-1595 (modified) 102194656 U.S. Patent and Trademark Office (Rev. 03/01) OMB No. 0651-0027 nts and Trademarks: Please record the attached original documents or copy thereof. To the Honorable Commissioner of 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Iichi WAKO HITACHI KOKUSAI ELECTRIC INC. 3-14-20 Higashi-Nakano, Nakano-ku, Tokyo, Japan Hisamatsu NAKANO Yusuke YAMAMOTO Additional name(s) of conveying party(ies) attached? ☐ Yes ☑ No 3. Nature of conveyance: ☐ Merger ☑ Assignment ☐ Security Agreement ☐ Change of Name ☐ Other Execution Date: August 1, 2002 Additional name(s) & address(es) attached?

Yes ☑ No 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: B. Patent No.(s) A. Patent Application No.(s) 10/147,302 Additional numbers attached? ☐ Yes ☑ No 6. Total number of applications and patents involved: 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. ☑ Enclosed. ☐ Authorized to be charged to Deposit Account No. 19-4880. Suite 800 Washington, D.C. 20037-3213 The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. 8. Deposit Account Number: 19-4880 (Attach duplicate copy of this page if paying 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. August 14, 2002 Date Darryl Mexic

Total number of pages including cover sheet, attachments, and documents: 2

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

Commissioner of Patents & Trademarks 00000217 10147302

Box Assignment

Washington, D.C. 20231

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PATENT

REEL: 013190 FRAME: 0347

ASSIGNMENT

Whereas, I/we Iichi WAKO and Hisamatsu NAKANO both of Tokyo, Japan Yusuke YAMAMOTO of Kanagawa, Japan

hereinafter called assignor(s), have invented certain improvements in SEMICIRCULAR RADIAL ANTENNA

and executed an application for Letters Patent of the United States of America therefor on

August 1, 2002; and

Whereas, HITACHI KOKUSAI ELECTRIC INC. of 3-14-20 Higashi-Nakano, Nakano-ku, Tokyo, Japan

(assignee), desires to acquire the entire right, title and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. § 119, and I/we request the Director – U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

Date:

RECORDED: 08/14/2002

PATENT REEL: 013190 FRAME: 0348