Atty Docket No .:

248448US2



FORM PTO-1595 1-31-92 U.S. DEPARTMENT OF COMMERCE To the Director of the United States 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): Arnaud GUEGUEN MITSUBISHI DENKI KABUSHIKI KAISHA Name: Address: 2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310, Additional name(s) of conveying party(ies) attached?

Yes No Japan 07-23-2004 3. Nature of Conveyance: Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name 102798311 ☐ Other Execution Date: March 26, 2004 Additional name(s) and 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: A. Patent Application No.(s) B. Patent No.(s) 10/787,114 Additional numbers attached? 5. Name and address of party to whom correspondence 6. Total applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 Customer Number Enclosed 22850 ☐ Authorized to be charged to deposit account Tel. (703) 413-3000 8. Deposit account number: 15-0030 Fax. (703) 413-2220 (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. Marvin J. Spivak Name of Person Signing Joseph A. Scafetta, Jr. Registration Number: 24,913 Registration No. 26,803

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PATENT REEL: 015579 FRAME: 0167

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Assignment of Application

NAMES	WHEREAS, I (WE) Arnaud GUEGUEN, Rennes Cedex 7, FRANCE	
IDENCE S OF		
ENTORS:		
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		—
		_
		_
	, respectiv	ely
LE OF	have invented certain new and useful improvements in: METHOD AND DEVICE FOR EFFICIENT DECODING	<u>OF</u>
4:	SYMBOLS TRANSMITTED IN A MIMO TELECOMMUNICATION SYSTEM	
TE S SIGNED	For which an application for Letters Patent was executed on	
ION:	(Application No. 10/787,114 , filed February 27, 2004), a	and
ME	WHEREAS, MITSUBISHI DENKI KABUSHIKI KAISHA	

(hereinafter referred to as "ASSIGNEE") having a place of business at: <u>2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310, Japan</u> is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, 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 held by me (us) had this Assignment and sale not been made.

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Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, 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.

(Signature of Inventor) Arnaud GUEGUEN	
(Signature of Inventor)	
(Signature of Inventor)	
(Signature of Inventor)	
	(Signature of Inventor) (Signature of Inventor) (Signature of Inventor)

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

10/01

PATENT REEL: 015579 FRAME: 0169

RECORDED: 07/19/2004