12-27-2000



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RECORDATION COVER SHEET **PATENTS**

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copies thereof.

1. Name(s) of conveying party(ies):

Kaoru ISHIDA and Shin'ichi KUGOU

2. Name(s) and Address(es) of receiving party(ies):

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 JAPAN

3. Nature of conveyance: Assignment Execution Date: November 21, 2000

4A. Patent Application No.(s):

09/732913

Application execution date: November 21, 2000

4B. Patent No.(s):

5. Name and Address of Party to whom correspondence regarding this document should be mailed:

SMITH, GAMBRELL & RUSSELL, LLP Beveridge, DeGrandi, Weilacher & Young Intellectual Property Group 1850 M Street N.W. (Suite 800) Washington, DC 20036

202 659-2811

6. Total number of applications and patents involved : one

7. Total fee: \$40.00.

(Enclosed. Please charge any deficiency or refund any excess to counsel's deposit account.)

8. Deposit account no.: 02-4300

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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.

Name of Person Signing: Michael A. Makuch, Reg. No. 32,263

Signature: _-

Date: December 11, 2000

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REEL: 011370 FRAME: 0740

ASSIGNMENT

This assign Multicarri	nment agreement is applicable to an invention entitled (Invention Title)er Transmitting Method and Multicarrier		
Transmitte			
	NT RIGHTS referred to in this agreement are:		
	a patent application for this invention, executed by the ASSIGNOR(S) concurrently with this assignment.		
	U.S. patent application Serial No, filed		
[a U.S. patent application based on PCT International Application No filed on (date) (U.S. patent		
	application Serial No. , if known).		
Γ	U.S. patent No, issued NT RIGHTS also include all divisions, reissues, continuations and extensions of		
The PATE	NT RIGHTS also include all divisions, reissues, continuations and extensions of		
the patents an	nd patent applications identified above.		
	NT RIGHTS assigned under this agreement are:		
(check one) >	U.S. patent rights only.		
Worldwide patent rights. In this case, the assignee shall have the right to			
	claim the benefit of the filing date of any U.S. or foreign patent application		
	for this invention.		
The ASSIG	SNOR(S) referred to in this agreement is (or are) the inventor(s) whose		
signatures app	pear on page 2 of this Assignment and any Supplemental Sheet(s).		
The ASSIG	NEE referred to in this agreement is:		
(Name of Assi	ignee) Matsushita Electric Industrial Co., Ltd.		
(Address) 10	06, Oaza Kadoma, Kadoma-shi, Osaka 571-8501 JAPAN		
The ASSIGNE	E is:		
(check one)	□ An Individual.		
1	☐ A Partnership. M. A. Corporation of JAPAN (specify state or country)		
)	A Corporation of		
	□ (other)		
and valuable rights to the	GNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good consideration, receipt of which is acknowledged, hereby assign(s) the following ASSIGNEE, its successors and assigns: and exclusive right to the invention;		
the entire	right, title and interest in and to the Paringement; and		
the right	to sue and recover for any past infringement; and,		
	to sue and recover for any past intringement, und, to claim priority under 35 USC 119, 35 USC 120, or any other applicable s based on any earlier patent applications for this invention.		
provisions based on any earlier patent applications for this in the second			

PATENT REEL: 011370 FRAME: 0741

THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO

ASSIGNEE: Matsushita Electric Industrial Co., Ltd.

INVENTION TITLE: MULTICARRIER TRANSMITTING METHOD AND MULTICARRIER TRANSMITTER CIRCUIT.

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any facts known to the ASSIGNOR(S) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNORS authorize any attorneys and agents who have a power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

Kaoru ISHIDA	Raoru Estida	November 21, 2000
Name of sole or first inventor	Signature	Date
Shin'ichi KUGOU	Signature Shinichi Kugo	November 21, 2000
Name of second inventor, if any	Signature	Date
Name of third inventor, if any	Signature	Date
Name of fourth inventor, if any	Signature	Date
Name of fifth inventor, if any	Signature	Date
Name of sixth inventor, if any	Signature	Date
Name of seventh inventor, if any	Signature	Date
Name of eighth inventor, if any	Signature	Date
Name of ninth inventor, if any	Signature	Date

9 1987, 1992 Beveridge, DeGrandi, Weilacher & Young

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