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Shinya SUZUKI - October 19, 1999 Kimitoshi TAKEUCHI - October 18, 1999 Toru YOSHIHARA - October 18, 1999 and Makoto OOHASHI - October 19, 1999	HITACHI TELECOM TE 94, Aza Funabamukai, Koriyama-shi, Japan	
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Same as above	Additional name(s) & addre	ss(es) attached? NO
If this is being filed together with a new application, to A. Patent Application Number(s):	he execution date of the applic B. Patent Number(	
09/395,778		
Additional num	nbers attached? NO	
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applica 7. Total fee (37 C.F.R. § 3	
Richard L. Schwaab	7. Total fee (37 C.F.R. § 3	3.41): \$ <b>40.00</b>
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PATENT REEL: 010423 FRAME: 0423

## ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto HITACHI TELECOM TECHNOLOGIES, LTD.

name and address of assignee

94, Aza Funabamukai, Fukushima-ken Koriyama-shi, Japan

(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to this invention relating to

title of invention

SYSTEM FOR TRANSMITTING DTMF SIGNAL AND COMMUNICATION EQUIPMENT THEREOF

as set forth in this United States Patent Application

check one

executed concurrently herewith

executed on

Serial No. 09/395,778

Filed September 14, 1999

in and to said United States Patent Application including any and all divisions or continuations thereof and in and to any and all Letters Patent of the United States which may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made;

Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he has the full and unencumbered right to sell and assign the interests herein sold and assigned and that he has not executed and will not execute any document or instrument in conflict herewith:

Each of the undersigned further covenants and agrees he will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him relating to said invention or patent application and that he will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention;

Each of the undersigned hereby grants the firm of **FOLEY & LARDNER** the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAMES AND SIGNATURES OF INVENTORS			
Name: Shinya SUZUKI	Signature: Lingua Luzuki	Date: oct. 19, 1999	
Name: Kimitoshi TAKEUCHI	Signature: Kimitoski Jakeuchi	Date: 8 (8 , 8 ) 59	
Name: Toru YOSHIHARA	Signature: January January	Date: ምሪቱ /ብ /9۶%	
Name: Makoto OOHASHI	Signature: Mike to Char-	Date: Oct 19 999	
NAMES AND SIGNATURES OF WITNESSES			
Name:	Signature:	Date:	
Name:	Signature:	Date:	

Note: Prima facie evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a focal officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.

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