07-23-2001

HEET

U.S. DEPARTMENT

OF COMMERCE

101785167

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): (1) Kentaro NAKAMURA (2) Takafumi TERAHARA (3) Junichi KUMASAKO (4) Rainer HAINBERGER 2. Name and Address of receiving party(ies): **FUJITSU LIMITED** 1-1, Kamikodanaka 4-chome Nakahara-ku, Kawasaki-shi Kanagawa 211-8588, Japan 3. Nature of conveyance: Assignment Merger Change of Name Security Agreement Other: Corrected Recordation form cover sheet, Reel/Frame 011593/0222. Execution Date(s): February 23, 2001 Application number(s) or patent number(s): 4. This document is being filed together with a new application: The execution date(s) of the application is/are: (a) (b) The title is: *** OR *** ☐ This document is being filed after filing of the application: Patent Application No(s). 09/800,891, filed March 8, 2001; or (a) Patent No(s)., issued. (b) Name and address of party to whom correspondence concerning document should be 5. mailed: STAAS & HALSEY LLP Our Docket: 826.1695 Attention: James D. Halsey, Jr. 700 Eleventh Street, N.W., Suite 500 Washington, D.C. 20001 Total number of applications and patents involved: 1 6. Total fee (37 CFR 3.41)..... (\$ 40.00 per Assignment) 7. **Enclosed** Authorized to be charged to deposit account. Deposit Account No.: 19-3935 (Any underpayment is authorized to be charged to this Deposit 8. Account) (Attach d. plicate copy of this page if paying by deposit account) Statement and signature. 9. 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. James D. Halsey, Jr., Reg. No. 22,729

Name of Person Signing

Total number of pages including cover sheet:5

Signature

PATENT

REEL: 012005 FRAME: 0321

Date

FORM (Rev. 6-9	PTU-1595 93)	. 03	-21-2001	— H E	Т		PARTMENT OF COMMERC
S&H 1/	99						
To the	e Honorable Commissioner of Patents a	<u> </u>	on 6424 9 7	al	documents or	copy thereof.	
1.	Name of conveying party(ies)	:					
	(1) Kentaro NAKAMURA(4) Rainer HAINBERGEF	• •	afumi TERAHARA	, ,	Junichi KU	MASAKO	
2.	Name and address of receiving	g party(ies):	C	3/08	101		
	FUJITSU LIMITED 1-1, Kamikodanaka 4-chome, Kawasaki, 211-8588 JAPAN	Nakahara-ku		<i>/ '</i>			8. PTO 0891
3.	Nature of conveyance:						
	X Assignment Security Agre Other:	ement	Merge Chan	er ge of Nam —	ne		100
	Execution Date(s): February 2	23, 2001 (all pa	<u>rties)</u>				
1 .	Application number(s) or pate	nt number(s):					
	This document is being filed to (a) The execution date(s) (b) The title is: BIDIRECT TRANSMISSION SYS *** OR ***	of the applicat	tion is/are: <u>Februar</u>				I MULTIPLEXED
_	This document is being filed a (a) Patent Application No (b) Patent No(s).	(s)/ , issued 900 8 9	_, filed				
5.	Name and address of party to STAAS & HALSEY LL Attention: James D. H	P		_	ent snould b 6.1695/JDH	e mailed:	
	700 Eleventh Street, I Washington, D.C. 20	N.W., Suite 500)				
3 .	Total number of applications a	and patents invo	olved:1_				
7.	Total fee (37 CFR 3.41)	\$ 40.00					
	X Enclosed Authorized to	be charged to	deposit account.				
3.	Deposit Account No.: 19-393 (Attach duplicate copy of this page)				charged to the	nis Deposit	Account)
) .	Statement and signature. To the best of my knowledge a true copy of the original docum		foregoing information	on is true	and correct	and any att	ached copy is a
	,,			w est			
	James D. Halsey, Jr., Reg. N Name of Person Signing	lo. 22,729	Signat	ture		March 8, 2	2001 Date
2/2001	CHGUYEN 00000070 09800891				mher of see	ae includica	
2:581	40.00 QP		DO NOT USE THIS SPACE	i otal Hu	mber of pag	es including	cover sheet: 2

PATENT REEL: 012005 FRAME: 0322

1-1, Kamikodanaka 4-cho	ome, Nakahara-ku, Ka	wasaki-shi, Kanagawa			
211-8588, Japan	· · · · · · · · · · · · · · · · · · ·				
(hereinafter, "ASSIGNEE"), the receipt of and transfers to ASSIGNEE the entire and		, the undersigned ASSIGNOR hereby sells, assi st to the invention entitled			
Title of Invention)	•				
BIDIRECTIONALLY TRANSMI	TTABLE OPTICAL WAVE	LENGTH DIVISION			
MULTIPLEXED TRANSMISSIO	ON SYSTEM				
elating to International Patent Application tates was executed on even date herewi	PCT/JP/and/or for ith or, if not so executed, was:	r which application for Letters Patent of the Unit			
(a) executed on	; (Insert date of ex	secution of application, if not concurrent)			
b) filed on	, Any registered a	ttorney of STAAS & HALSEY, 700 Eleventh			
Serial No/;	Street, N.W., W.	Street, N.W., Washington, D.C. 20001 (202/434-1500) is hereby authorized to insert in (b) the specified data, when			
iewal, substitute, reissue or reexamination tent(s) may be granted and including a	known. t(s) of the United States granted on application based thereon, for	on said application and any continuation, divisio			
tewal, substitute, reissue or reexamination tent(s) may be granted and including attent(s). The ASSIGNOR agree(s), when requeste do all acts which the ASSIGNEE may distection for said invention, including in the tent(s), in any interference, reissue, reexamich may arise or be declared in relation to tarate assignments and declarations, take	known. It(s) of the United States granted on application based thereon, for any extensions thereof (collective of by said ASSIGNEE and without earn necessary, desirable or experimental or or public use proceeding same, such acts to include but	on said application and any continuation, division the full term or terms for which the said Letterly, hereinafter, "said application(s) and Letterly, hereinafter, "said application(s) and Letterly, the charge to but at the expense of said ASSIGNE pedient, for securing, maintaining and enforcing aid application(s) and the issuance of said Letterly, and in any litigation or other legal proceeding, and in any litigation or other legal proceeding.			
newal, substitute, reissue or reexamination tent(s) may be granted and including attent(s). The ASSIGNOR agree(s), when requeste do all acts which the ASSIGNEE may distection for said invention, including in the tent(s), in any interference, reissue, reexamich may arise or be declared in relation to parate assignments and declarations, taked	known. It(s) of the United States granted on application based thereon, for any extensions thereof (collective of by said ASSIGNEE and without seem necessary, desirable or experience of semination, or public use proceeding same, such acts to include butting all rightful oaths, providing	on said application and any continuation, division the full term or terms for which the said Letterly, hereinafter, "said application(s) and Letterly, hereinafter, "said application(s) and Letterly techniques to but at the expense of said ASSIGNE pedient, for securing, maintaining and enforcing aid application(s) and the issuance of said Letterly, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing			
newal, substitute, reissue or reexamination tent(s) may be granted and including attent(s). The ASSIGNOR agree(s), when requeste do all acts which the ASSIGNEE may distection for said invention, including in the tent(s), in any interference, reissue, reexamich may arise or be declared in relation to parate assignments and declarations, taked	known. It(s) of the United States granted on application based thereon, for any extensions thereof (collective of by said ASSIGNEE and without earn necessary, desirable or experimental or proparation and prosecution of sumination, or public use proceeding all rightful oaths, providing the dinventor(s) has (have) affixed the process of the same of the	on said application and any continuation, division the full term or terms for which the said Letter ely, hereinafter, "said application(s) and Lette the charge to but at the expense of said ASSIGNE to be dient, for securing, maintaining and enforcing aid application(s) and the issuance of said Letterng, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing his/her/their signature(s).			
tends, substitute, reissue or reexamination tent(s) may be granted and including attent(s). The ASSIGNOR agree(s), when requeste do all acts which the ASSIGNEE may distection for said invention, including in the tent(s), in any interference, reissue, reexamich may arise or be declared in relation to tearate assignments and declarations, taked tence. IN WITNESS WHEREOF, the undersigned	known. It(s) of the United States granted on application based thereon, for any extensions thereof (collective of by said ASSIGNEE and without earn necessary, desirable or experimental or proparation and prosecution of sumination, or public use proceeding all rightful oaths, providing the dinventor(s) has (have) affixed the process of the same of the	on said application and any continuation, division the full term or terms for which the said Letter ally, hereinafter, "said application(s) and Letter the charge to but at the expense of said ASSIGNED and aid application(s) and the issuance of said Letterng, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing his/her/their signature(s). (Typed Name & Signature of Witness(es))			
tent(s) may be granted and including astent(s) may be granted and including astent(s)"). The ASSIGNOR agree(s), when requeste do all acts which the ASSIGNEE may distection for said invention, including in the ent(s), in any interference, reissue, reexaich may arise or be declared in relation to arate assignments and declarations, takence. IN WITNESS WHEREOF, the undersigned (Typed Name & Signature of Inventoris	known. It(s) of the United States granted on application based thereon, for application based thereon, for application based thereon, for a state of the said ASSIGNEE and without the sa	on said application and any continuation, division the full term or terms for which the said Letter ely, hereinafter, "said application(s) and Letter the charge to but at the expense of said ASSIGNE pedient, for securing, maintaining and enforcing aid application(s) and the issuence of said Letterng, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing his/her/their signature(s).			
tent(s) may be granted and including attent(s) may be granted and including attent(s). The ASSIGNOR agree(s), when requeste do all acts which the ASSIGNEE may ditection for said invention, including in the tent(s), in any interference, reissue, reexaich may arise or be declared in relation to tarate assignments and declarations, taked tence. IN WITNESS WHEREOF, the undersigned of Inventor(s). IN WITNESS WHEREOF, the undersigned of Inventor(s).	known. It(s) of the United States granted on application based thereon, for application based thereon, for application based thereon, for a state of the said ASSIGNEE and without the sa	on said application and any continuation, division the full term or terms for which the said Letter ally, hereinafter, "said application(s) and Letter the charge to but at the expense of said ASSIGNE to be dient, for securing, maintaining and enforcing aid application(s) and the issuance of said Letter and in any litigation or other legal proceeding, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing his/her/their signature(s). (Typed Name & Signature of Witness(es))			
tent(s) may be granted and including astent(s) may be granted and including astent(s). The ASSIGNOR agree(s), when requeste do all acts which the ASSIGNEE may diffection for said invention, including in the ent(s), in any interference, reissue, reexaitich may arise or be declared in relation to arate assignments and declarations, taked dence. IN WITNESS WHEREOF, the undersigned (Typed Name & Signature of Inventoris) Kentaro NAKAMURA	known. It(s) of the United States granted on application based thereon, for application based thereon, for applications thereof (collective decisions) and applications thereof (collective decisions) and prosecution of state of the preparation and prosecution of state of the properties of the providing all rightful oaths, providing the dinventor(s) has (have) affixed the properties of the providing of the properties of the	on said application and any continuation, division the full term or terms for which the said Letter ally, hereinafter, "said application(s) and Lette at charge to but at the expense of said ASSIGNE pedient, for securing, maintaining and enforcing aid application(s) and the issuance of said Letterng, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing his/her/their signature(s). (Typed Name & Signature of Witness(es) Noriko IKEDA Noriko IKEDA Noriko IKEDA			
tent(s) may be granted and including astent(s) may be granted and including astent(s). The ASSIGNOR agree(s), when requested all acts which the ASSIGNEE may direction for said invention, including in the tent(s), in any interference, reissue, reexalich may arise or be declared in relation to the tent assignments and declarations, taked dence. IN WITNESS WHEREOF, the undersigned of the tent as a signature of the tent as a	known. It(s) of the United States granted on application based thereon, for application based thereon, for application based thereon, for any extensions thereof (collective dots) and ASSIGNEE and without seem necessary, desirable or expense preparation and prosecution of similation, or public use proceeding as such acts to include butting all rightful oaths, providing the dinventor(s) has (have) affixed the collection of	on said application and any continuation, division the full term or terms for which the said Letter ely, hereinafter, "said application(s) and Lette to charge to but at the expense of said ASSIGNE pedient, for securing, maintaining and enforcing aid application(s) and the issuance of said Letterng, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing his/her/their signature(s). (Typed Name & Signature of Witness(es) Noriko IKEDA Noriko IKEDA Noriko IKEDA Noriko IKEDA			
Takafumi TERAHARA Junualu Munasa Kur	known. It(s) of the United States granted on application based thereon, for application based thereon, for application based thereon, for applications thereof (collective desirations) thereof (collective desirations) thereof (collective desirations) the said ASSIGNEE and without seem necessary, desirable or expense	on said application and any continuation, division the full term or terms for which the said Letter ally, hereinafter, "said application(s) and Lette at charge to but at the expense of said ASSIGNE pedient, for securing, maintaining and enforcing aid application(s) and the issuance of said Letterng, and in any litigation or other legal proceeding not be limited to executing all papers, including sworn testimony, and obtaining and producing his/her/their signature(s). (Typed Name & Signature of Witness(es) Noriko IKEDA Noriko IKEDA Noriko IKEDA			

PATENT REEL: 012005 FRAME: 0323

RECORDED: 07/17/2001