B/O FORM PTO 1 Patent and Tradem RECORDATION FO PATENTS ON	ark Office 102242	ent of Commerce ⁴ 0100 225 shows a state of Commerce shows a state of		
		HITA.0278		
To the Honorable	Commissioner of Patents and Trademarks. Please reco	rd the attached original documents or copy thereof.		
1. Name of Conveying Party(ies): Hiroyuki NAGAMORI, Hitoshi AKAMINE, Shun IMAI, Satoshi ARAI and Yasuhiro NUNOGAWA Additional names of conveying parties attached		2. Name and Address of Receiving Party(ies): Name: Hitachi, Ltd 6, Kanda Surugadai 4-chome Chiyoda-ku, Tokyo, Japan and		
3. Nature d	16/6/02	Hitachi ULSI Systems Co., Ltd. 22-1 Josuihoncho 5-chome Kodaira-shi, Tokyo, Japan		
AssigSecurOther	nment Merger rity Agreement Change of Name	10/260300		
	at Application Number(s):	4. (b) Patent Numbers:		
execution date of t	being filed together with a new application, the he application is:			
April 9, 2001	nbers Attached.			
Additional Nur . Name an	nbers Attached. d Address of Party to whom Correspondence ting this Document Should be Mailed:	6. Total Number of Applications and Patents Involved:		
Additional Nur . Name an	d Address of Party to whom Correspondence	6. Total Number of Applications and Patents Involved: 7. Total Fee: (37 C.F.R. § 3.41) \$40.00		
Additional Nur S. Name an Concern	d Address of Party to whom Correspondence ning this Document Should be Mailed:	7. Total Fee: \$40.00		
Additional Nur . Name an Concern Name:	d Address of Party to whom Correspondence ing this Document Should be Mailed: Stanley P. Fisher Reed Smith Hazel Thomas LLP 3110 Fairview Park Dr. Suite 1400	7. Total Fee: \$40.00 (37 C.F.R. § 3.41) \$40.00 ⊠ Enclosed. □ Authorized to be charged to deposit account. 8. Deposit Account Number:		
 Additional Nur <i>Name an</i> <i>Concern</i> Name: Address: 	d Address of Party to whom Correspondence ing this Document Should be Mailed: Stanley P. Fisher Reed Smith Hazel Thomas LLP 3110 Fairview Park Dr. Suite 1400 Falls Church, Va. 22042	7. Total Fee: \$40.00 (37 C.F.R. § 3.41) \$40.00 ⊠ Enclosed. □ Authorized to be charged to deposit account.		
 Additional Nur <i>Name an</i> <i>Concern</i> Name: Address: 	d Address of Party to whom Correspondence ing this Document Should be Mailed: Stanley P. Fisher Reed Smith Hazel Thomas LLP 3110 Fairview Park Dr. Suite 1400 Falls Church, Va. 22042 HIS SPACE	7. Total Fee: \$40.00 (37 C.F.R. § 3.41) \$40.00 ⊠ Enclosed. □ Authorized to be charged to deposit account. 8. Deposit Account Number:		
 Additional Nur <i>Name an</i> <i>Concern</i> Name: Address: DO NOT USE TI 9. Stateme	d Address of Party to whom Correspondence ing this Document Should be Mailed: Stanley P. Fisher Reed Smith Hazel Thomas LLP 3110 Fairview Park Dr. Suite 1400 Falls Church, Va. 22042 HIS SPACE nt and Signature:	7. Total Fee: \$40.00 (37 C.F.R. § 3.41) \$40.00 Image: Second state of the second s		
 Additional Nur <i>Name an</i> <i>Concern</i> Name: Address: DO NOT USE TI 9. Stateme	d Address of Party to whom Correspondence ing this Document Should be Mailed: Stanley P. Fisher Reed Smith Hazel Thomas LLP 3110 Fairview Park Dr. Suite 1400 Falls Church, Va. 22042 HIS SPACE nt and Signature: est of my knowledge and belief, the foregoing is true	7. Total Fee: \$40.00 (37 C.F.R. § 3.41) \$40.00 ⊠ Enclosed. □ Authorized to be charged to deposit account. 8. Deposit Account Number:		
□ Additional Nur 5. Name an Concern Name: Address: DO NOT USE TI 9. Stateme To the bi documen	d Address of Party to whom Correspondence sing this Document Should be Mailed: Stanley P. Fisher Reed Smith Hazel Thomas LLP 3110 Fairview Park Dr. Suite 1400 Falls Church, Va. 22042 HIS SPACE Int and Signature: est of my knowledge and belief, the foregoing is true ut.	7. Total Fee: \$40.00 (37 C.F.R. § 3.41) \$40.00 ⊠ Enclosed. □ Authorized to be charged to deposit account. 8. Deposit Account Number: ATTACHERPLEME COPY OF THE PARE REPAYENCE UPPOSIT ACCOUNT and correct and any attached copy is a true copy of the original		

~			
10/02/2002	TGEDAMU1	00000048	10260310
02 FC:581	E		40.00 00

ASSIGNMENT (譲 渡 証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by HITACHI, LTD. and Hitachi ULSI Systems Co., Ltd., corporations organized under the laws of Japan, located at 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo, Japan, and 22-1, Josuihoncho 5-chome, Kodaira-shi, Tokyo, Japan, respectively, receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI, LTD. and Hitachi ULSI Systems Co., Ltd., their successors and assigns, all my right, title and interest, in and for the United States of America, in and to

DIRECTIONAL COUPLER, HIGH FREQUENCY CIRCUIT MODULE AND WIRELESS COMMUNICATION SYSTEM

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire owner ship of the said Letters Patent when granted, to be held and enjoyed by said HITACHI, LTD, and Hitachi ULSI Systems Co., Ltd., their successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI, LTD. and Hitachi ULSI Systems Co., Ltd.

Signed on the date(s) indicated aside signatures:

	INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)
1)	Hiroyuki Nagamori (Hiroyuki NAGAMORI)	9/ April / 2001
2)	Hitoshi AKAMINE (Hitoshi AKAMINE)	9/APT:1/2001
3)	Shen Imai (Shun IMAI)	9/April/2001,
4)	Satoshi ARAL (Satoshi ARAI)	9/ April / 200/
5)	Yasuhiro Nunogawa (Yasuhiro NUNOGAWA)	9/April /2001
6)		
7)		
8)		
9)		
10)		

PATENT REEL: 013347 FRAME: 0451

RECORDED: 10/01/2002