VIA EXPRESS MÁIL EV 425039105 US **CUSTOMER NO. 24498**

1 0 / 511387 DT05 Rec'd PCT/PT0 15 OCT 2004 PU020119

FORM PTO-1595 Rev. 04/2003

03-24-2005 U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

(01,			,2	
To the Honorable Director of the United States Patent and	102965	240	documents or copy thereof.	
. Name of conveying party(ies):	102900	2. I tallio alla addioss	of receiving party(ies):	
IEONGSOON PARK; SEO WEON HEO;		Name: Thomson Lic	censing S.A.	
VONETE MARKMAN; SAUL BRIAN GELFAND		Internal Address:		
Additional name(s) of X No conveying party(ies) attached:		Street Address: 46 Q F-92	Quai A. Le Gallo 100 Boulogne-Billancourt, France	
8. Nature of convenance: K Assignment Merger Security Agreement Change of Name Other				
Execution Date June 5, May 24, May 12 and June 9, 2003, resp	pectively	Additional name(s) &	address(es)attached?	X No
 Application number(s) or patent number(s): If this document is being filed together with a new application. A. Patent Application No.(s): PCT/US03/11207 	on, the execution date of	the application is: B. Patent No.(s)		
Additional numbers attached?	Yes	No X		
5. Name and address of party to whom correspondence concerning document should be mailed: Name: JOSEPH S. TRIPOLI	1	6. Total number of ap	plications and patents involved:_1	
Internal Address: PATENT OPERATIONS THOMSON LICENSING INC.	I	7. Total Fee (37 CFR Enclosed X Authorized	3.41): \$40.00 d to be charged to deposit account	
Street Address: P. O. Box 5312 City: PRINCETON State: NEW JERSEY Zip: 08543-	5312	8. Deposit account nu 07-0832	imber:	<u></u>
City, Transport		OT USE THIS SPACE		
 Statement and signature. To the best of my knowledge and belief, the foregoing information of the original document. 	ation is true and correct	and any attached copy	is a true	
JOSEPH J. OPALACH Name of Person Signing	Signature - Registratio	or No.36,229		
Total number of pages including cov	er sheet, attachments, ar	nd document7		
	DO NOT D	ETACH THIS PORTI	ION	
	DO NOT D	Linear Imbi ORII		

Mail documents to be recorded with this sheet to:

10/20/2004 LLANDGRA 00000032 070832

10511387

Mail Stop Assignment Recordation Services Director of the United States Patent and Trademark Office

P. O. Box 1450 Alexandria, Virginia 22313-1450

03 FC:8021 40.00 DA

> Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, D.C. 20503.

> > **PATENT**

REEL: 016379 FRAME: 0641

ASSIGNMENT AND AGREEMENT

I hereby declare that I am the sole inventor (if only one inventor is named below) or one of joint inventors EQUALIZER/FORWARD ERROR CORRECTION AUTOMATIC MODE (if plural inventors are named below) of the inventions relating to SELECTOR

and described in Docket No. PU020119 and the thereupon-based International (Patent Cooperation Treaty) Application for patent about to be filed or lately filed by said

corporation naming me/us as inventor(s).

For valuable consideration received, I hereby sell, assign and transfer to **THOMSON Licensing S.A.**, a corporation duly organized and existing under the laws of France, its successors, and assigns my entire right, title and interest, for all countries in and to said inventions and application, and all the rights and privileges under any and all Patents that may be granted therefor, and any divisions, continuations, reissues and extensions thereof.

I agree that, when requested, I will, without charge to said corporation but at its expense, sign all papers, take all rightful oaths, make all rightful declarations

and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all

countries and for vesting title thereto in said corporation, its successors, assigns or nominees.

I agree that I will communicate to said corporation or its representatives any facts known to me respecting said inventions and when requested by said corporation and at its expense will testify in any legal proceedings, and generally do everything possible to aid said corporation, its successors, assigns and legal

corporation and at its expense will testify in any legal proceedings, and generally do everything possible to aid said corporation, its successors, assigns and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower said corporation, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries and to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention of the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said corporation or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with THOMSON Licensing S.A., its successors, assigns, legal representatives, and nominees, that to the best of my knowledge the right title and

I covenant with THOMSON Licensing S.A., its successors, assigns, legal representatives, and nominees, that to the best of my knowledge the right, title and interest herein conveyed by me are free and clear of any encumbrance, and that I have full right to convey the same as herein expressed.

Signed at	West Lafayette, IN	Date	615103
inventor (1)	JEONGSOON PARK (Type or Print)	-	Jengsoon Pork (Signature in Full. No initials.)
F	Post Office Address 321 Ravenwood Lane,	Apt. C. I	afayette, Indiana 47909
1st Witness	Bonnio Jee Misner (Type or Print)	-	Roman Service (Signature in Full No initials.)
2ndWitness	JILL A Comea (Type or Print)	-	(Stonature in Full. No initials.)
Signed at		Date	
Inventor (2)	SEO WEON HEO (Type or Print)	-	(Signature in Full. No initials.)
F	Post Office Address 127-18 Gaebongbon-D	ong, Gu	ro-Gu, Seoul, South Korea 142-090
1st Witness	(Type or Print)	-	(Signature in Full. No initials.)
2ndWitness		_	
	(Type or Print)		(Signature in Full. No initials.)
Signed at		Date -	
Inventor (3)	IVONETE MARKMAN	_	
	(Type or Print)		(Signature in Full. No initials.)
F	Post Office Address 11388 Royal Court, Ca	rmel, Inc	liana 46032
1st Witness		_	
	(Type or Print)		(Signature in Full. No initials.)
2ndWitness	(Type or Print)	-	(Signature in Full. No initials.)
	After this Assignment has bee	n recorded	

THOMSON Licensing Inc. P. O. Box 5312 Princeton, NJ 08543-5312

Pat Form 09/00

ASSIGNMENT AND AGREEMENT

Signed at			Date		
			_		
Inventor (1)		AN GELFAND			
	(Type or Print)			(Signature in Full. No initials.)	
	Post Office Address	70 Sugar Maple Court, I	_afayette,	Indiana 47905	
1st Witness					
151 171111000	(Type or Print)		_	(Signature in Full. No initials.)	
2ndWitness					
	(Type or Print)			(Signature in Full. No initials.)	
Signed at			Date		
Inventor (2)	/Turne or Drint			(Cignature in Full. No initials.)	
	(Type or Print)			(Signature in Full. No initials.)	
	Post Office Address				
1					
1st Witness	(Type or Print)		_	(Signature in Full. No initials.)	
	(1) po of 1 mily			(Ognation are an including	
2ndWitness	(Type or Print)		_	(Signature in Full. No initials.)	-
	(-)F=				
Signed at		· · · · · · · · · · · · · · · · · · ·	Date		-
Inventor (3)				(0)	
	(Type or Print)			(Signature in Full. No initials.)	
	Post Office Address				
					
1st Witness	(Type or Print)			(Signature in Full. No initials.)	
	(Type of Fillity			(ognicio ari da rio andias)	
2ndWitness	(Type or Print)			(Signature in Full. No initials.)	
	(Type or Print)			(Olghature in Full. INO linitials.)	

After this Assignment has been recorded please RETURN to:

Patent Operations
THOMSON Licensing Inc.
P. O. Box 5312
Princeton, NJ 08543-5312

Pat Form 09/00

ASSIGNMENT AND AGREEMENT

I hereby declare that I am the sole inventor (if only one inventor is named below) or one of ioint inventors EQUALIZER/FORWARD ERROR CORRECTION AUTOMATIC MODE (if plural inventors are named below) of the inventions relating to SELECTOR

and described in Docket No. PU020119 and the thereupon-based International (Patent Cooperation Treaty) Application for patent about to be filed or lately filed by said

corporation naming me/us as inventor(s).

For valuable consideration received, I hereby sell, assign and transfer to THOMSON Licensing S.A., a corporation duly organized and existing under the laws of France, its successors, and assigns my entire right, title and interest, for all countries in and to said inventions and application, and all the rights and privileges under

any and all Patents that may be granted therefor, and any divisions, continuations, reissues and extensions thereof.

I agree that, when requested, I will, without charge to said corporation but at its expense, sign all papers, take all rightful oaths, make all rightful declarations and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all

and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting title thereto in said corporation, its successors, assigns or nominees.

I agree that I will communicate to said corporation or its representatives any facts known to me respecting said inventions and when requested by said corporation and at its expense will testify in any legal proceedings, and generally do everything possible to aid said corporation, its successors, assigns and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower said corporation, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries and to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this assignment shall be deemed a full legal and format equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the

may be required in any country for any purpose and more particularly in proof of the right of the said corporation or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with **THOMSON Licensing S.A.**, its successors, assigns, legal representatives, and nominees, that to the best of my knowledge the right, title and

interest herein conveyed by me are free and clear of any encumbrance, and that I have full right to convey the same as herein expressed.

Signed at		ate	
Inventor (1)	JEONGSOON PARK (Type or Print)	(Signature in	Full. No initials.)
F	Post Office Address 321 Ravenwood Lane, A	. C. Lafayette, Inc	diana 47909
1st Witness	(Type or Print)	(Signature in	Full. No initials.)
2ndWitness	(Type or Print)	(Signature in	Full. No initials.)
Signed at	Seoul, South Komen	ate May	24, 2003
inventor (2)	SEO WEON HEO (Type or Print)	(Signature in	Full. No initials.)
F	Post Office Address 127-18 Gaebongbon-Do	, Guro-Gu, Seou	l, South Korea 142-090
1st Witness	Hee Jao Jeng (Type or Print)	(Signature in	FAII. No initials.)
2ndWitness	JANG WON PYUNG	(Signature in	10 Eq. () Full. No initials.)
Signed at		ate	
Inventor (3)	IVONETE MARKMAN (Type or Print)	(Slonature i	n Full. No initials.)
} 	Post Office Address 11388 Royal Court, Carr	, -	
1st Witness	(Type or Print)		n Full. No initials.)
2ndWitness	(Type or Print)		n Full. No initials.)

THOMSON Licensing Inc. P. O. Box 5312 Princeton, NJ 08543-5312

Pat Form 09/00

ASSIGNMENT AND AGREEMENT

Signed at			Date		
Inventor (1)	SAUL BRIA	AN GELFAND	_		
	(Type or Print)		_	(Signature in Full. No initials.)	
	Post Office Address	70 Sugar Maple Court,	Lafayette	, Indiana 47905	
1st Witness					
[(Type or Print)		_	(Signature in Full. No initials.)	
2ndWitness	(Type or Print)			(Signature in Full. No initials.)	
Signed at			Date		
		······································			
Inventor (2)			_		- [
	(Type or Print)		_	(Signature in Full. No initials.)	
	Post Office Address				
1st Witness					
	(Type or Print)			(Signature in Full. No initials.)	
2ndWitness			_		
 	(Type or Print)			(Signature in Full. No initials.)	
Signed at			Date		
Inventor (3)					
	(Type or Print)		_	(Signature in Full. No initials.)	
!	Post Office Address				
1st Witness			_		
	(Type or Print)		_	(Signature in Full. No initials.)	
2ndWitness			_		
L	(Type or Print)			(Signature in Full. No initials.)	

After this Assignment has been recorded please RETURN to:

Patent Operations
THOMSON Licensing Inc.
P. O. Box 5312
Princeton, NJ 08543-5312

Pat Form 09/00

ASSIGNMENT AND AGREEMENT

I hereby declare that I am the sole inventor (if only one inventor is named below) or one of 4 joint inventors (if plural inventors are named below) of the inventions relating to SELECTOR EQUALIZER/FORWARD ERROR CORRECTION AUTOMATIC MODE SELECTOR

and described in Docket No. PU020119 and the thereupon-based International (Patent Cooperation Treaty) Application for patent about to be filed or lately filed by said corporation naming me/us as inventor(s).

For valuable consideration received, I hereby sell, assign and transfer to **THOMSON Licensing S.A.**, a corporation duly organized and existing under the laws of France, its successors, and assigns my entire right, title and interest, for all countries in and to said inventions and application, and all the rights and privileges under any and all Patents that may be granted therefor, and any divisions, continuations, reissues and extensions thereof.

I agree that, when requested, I will, without charge to said corporation but at its expense, sign all papers, take all rightful oaths, make all rightful declarations and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting title thereto in said corporation, its successors, assigns or nominees.

I agree that I will communicate to said corporation or its representatives any facts known to me respecting said inventions and when requested by said corporation and at its expense will testify in any legal proceedings, and generally do everything possible to aid said corporation, its successors, assigns and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower said corporation, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries and to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said corporation or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with **THOMSON Licensing S.A.**, its successors, assigns, legal representatives, and nominees, that to the best of my knowledge the right, title and interest herein conveyed by me are free and clear of any encumbrance, and that I have full right to convey the same as herein expressed.

Signed at		Date	
Inventor (1)	JEONGSOON PARK		
	(Type or Print)		(Signature in Full. No initials.)
Pos	Office Address 321 Ravenwood Lan	e, Apt. C. L	afayette, Indiana 47909
1st Witness			
	(Type or Print)	- <u>-</u>	(Signature in Full. No initials.)
2ndWitness _			
	(Type or Print)		(Signature in Full. No initials.)
Signed at		Date	
Inventor (2)	SEO WEON HEO		
	(Type or Print)		(Signature in Full. No initials.)
Post	Office Address 127-18 Gaebongbon	-Dong, Gur	o-Gu, Seoul, South Korea 142-090
1st Witness	(Type or Print)	 -	(Signature in Full. No initials.)
2ndWitness	(Type or Print)		(0)
	(Type of Filit)		(Signature in Full. No initials.)
Signed at		Date	05/12/03
Inventor (3)	IVONETE MARKMAN		Avouete varkuna
	(Type or Print)		(Signature in Full. No initials.)
Post	Office Address 11388 Royal Court, C	Carmel, Ind	iana 46032
1st Witness	Myse or Print)	DWNS.	Watornatte M
2ndWitness	Elizabeth Ann lack	Soni	(Standard in Full. No injusts)
ZITUVVIUIESS	(Type or Print)	-	(Signature in Full. No initials.)

Pat Form 09/00

Princeton, NJ 08543-5312

P. O. Box 5312

ASSIGNMENT AND AGREEMENT

Signed at	West Lafayette IN	Date	6/9/03
Inventor (1)	SAUL BRIAN GELFAND		Soul Brian Creeke of
l	(Type or Print)		(Signature in Full. No initials.)
P	ost Office Address 70 Sugar Maple Coul	rt, Lafayette	e, Indiana 47905
1st Witness	Bonnie Jer Misner	 -	Bonnie Jar Miene
-	(Type or Print)		(Signature in Full. Nb initials.)
2ndWitness	JILL A COMER		Till a Comer
	(Type or Print)		(Signature in Full. No initials.)
Signed at		Date	
inventor (2)	(Type or Print)		(Signature in Full. No initials.)
	(1)		
P	ost Office Address	_	
1st Witness			
	(Type or Print)		(Signature in Full. No initials.)
2ndWitness			
	(Type or Print)		(Signature in Full. No initials.)
Signed at		Date	
Inventor (3)	(Tues or Dried)		(Signature in Full. No initials.)
	(Type or Print)		(Signature in Fuit. No linitials.)
P	ost Office Address		
1st Witness			
	(Type or Print)		(Signature in Full. No initials.)
2ndWitness			
	(Type or Print) After this Assignment has be	neen recorded r	(Signature in Full. No initials.) please RETURN to: Patent Operations

Pat Form 09/00

RECORDED: 10/15/2004

Patent Operations
THOMSON Licensing Inc.
P. O. Box 5312
Princeton, NJ 08543-5312