# PATENT ASSIGNMENT

# Electronic Version v1.1

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:			ASSIGNMENT		
CONVEYING PARTY DATA					
		N	ame	Execution Date	
Thomas Edward Horlander				02/23/2011	
Brian Joseph Dorini				02/23/2011	
RECEIVING PARTY D	ATA				
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Property Ty	/pe		Number		
Application Number:		13575	803		
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			d, Patent Operations THOMS		
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Address Line 4: Princeton, NEW JERSEY 08543-5312					
ATTORNEY DOCKET NUMBER:			PU100018		
NAME OF SUBMITTER:			Brian J. Dorini		
Total Attachments: 3 source=PU100018Assignment#page1.tif source=PU100018Assignment#page2.tif source=PU100018Assignment#page3.tif				PATENT	
502005166			REEL:	028660 FRAME: 0219	

### Docket No. PU100018 ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

described in an Application for Patent filed on	January 29, 2010	under Serial No.	61/337,060	and described in the file associated with

For valuable consideration received, I hereby sell, assign and transfer to THOMSON LICENSING, a corporation duly organized and existing under the laws of the country of France, its successors, and assigns my entire right, title and interest, for all countries in and to said inventions, and all the rights and privileges under any and all Letters Patent 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

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 on diegal 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 the other inventions and event or other form of protection for said inventions in

Lauthorize 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 mylour name, in any and all countries and to lank 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 consided in any contracts and many entities of priority for patent of any assignment, consent to file or like document which may be constructed in any contracts and many entities in proof of the said comparison of a subsciences, assigns or nominees to anoty for natent or the said contract in any contracts and many entities of the right of the said contraction of any assignment, consent to file or like document which may be consided in any contracts and many entities of the priority for matent or the said contractions or prominees to anoty for natent or the said contractions or prominees to anoty for matent or the said contraction or patent shall be deemed and the said contraction of any assignment.

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, 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	Indianapolis, in	USA Dat	= 5/19/2010		
Inventor (1)	Thomas Edward Horian (Type or Print)		ie <u>5/19(20)0</u> <u>Juanas Edword</u> <u>HC</u> (Signature in Full. No initials.)		
	Post Office Address 6234 Haverford Avenue, Indianapolis, IN 46220 USA				
1st Witness	MICHAEL J. M. (Type or Print)	CLANE	(Signature in Full: No initialis.)		
2ndWitness	MATHEW ABRAH	Am	(Signature in Full: No initials.) Mathew Albaha (Signature in Full. No initials.)		
Signed at		Dat			
Inventor (2)	(Type or Print)		(Signature in Full. No initials.)		
			(ognation in the real mature)		
	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	e		
Inventor (3)					
	(Type or Print)		(Signature in Full. No initials.)		
6	Post Office Address	******			
1st Witness	(Type or Print)		(Signature in Full. No initials.)		
2ndWitness	(Type or Print)		(Signature in Full. No initials.)		

After this Assignment has been recorded please RETURN to:

Patent Operations THOMSON Licensing LLC PO Box 5312 Princeton, NJ 08543-5312

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#### ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

I hereby declare that I am the sole inventor (if only one inventor is named below) or one of \_\_\_\_\_\_ joint inventors (if plural inventors are named below) of the Inventions relating to BLOCK-BASED INTERLEAVING

described in an Application for Patent filed on \_\_\_\_\_ January 28, 2011\_\_\_\_ under Serial No. PCT/US2011/00168 and described in the file associated with Docket

No. PU100018 ..., listed above or, if not identified here by filing date and serial number or by the Docket Number listed above, executed by me on even date with my execution of this Assignment/Agreement.

For valuable consideration received, I hereby sell, assign and transfer to Thomson Licensing, a corporation duly organized and existing under the laws of the country of France, its successors, and assigns my entire right, title and interest, for all countries in and to said inventions, and all the rights and privileges under any and all Letters Patent that may be granted therefor, and any divisions, continuations, relissues 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 complete the declarations in any and all complete the declarations in any and all complete the complete to cold inventions in any and all complete the declarations in any and all complete the solution of the temperative to contain the receiver contains of protection for said inventions in any and all complete the solution of the temperative to contain the receiver contains of complete the solutions of the temperature of the contains in any and all complete the solution of the temperature is contained to complete the contains of the temperature is contained to the temperature is contained to the temperature is contained to the temperature of temperature is contained to the temperature is contained to temperature is and the temperat

and do all acts which may be necessary, destrable or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting the 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 lagal 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 shall be 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 h any country for any purpose and more particularly in proof of the right of the right of priority provided by the international Convention 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, its successors, easigns, legal representatives, and nominees, that to the best of

Signed at Indiana polis	Date 2/23/2011				
inventor (1) Thomas Edward Horlander (Type or Print)	Signature in Full. No initials.)				
Post Office Address 6234 Haverford					
1st Witness <u>RICHARD R. PHIPB</u>	Baseler Carry USignettire n. Best "yo irikiaise da				
2ndWitness MARK W. GYSIN					
(Type or Print)	(Stanature in Fuil. No Initials.)				
Signed at	Date				
Inventor (2) Brian Josenh Dorini					
Inventor (2) Brian Joseph Dorini (Type or Print)	(Signature in Full. No initials.)				
(					
Post Office Address 168 Loomis Cou	rt, Princeton, New Jersey 08540 US				
1st Winess					
(Type or Print)	(Signature in Full. No initials )				
2ndWitness					
(Eype or Print)	(Signature in Full. No Initiais.)				
Signed at	Dete				
investor (3)					
(Type or Point)	(Signature in Full, No Initials.)				
Posi Office Address					
1st Witness					
(Type or Print)	(Signature in Fuß. No initials.)				
2ndWitness					
(Type or Print)	(Signature in Fuß, No initials.)				
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Princeton, NJ 08543-5312

#### Docket No. PU100018

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and described in the file associated with described in an Application for Patent flied on \_\_\_\_\_\_ January 28, 2011\_\_\_\_ under Serial No. PCT/US11/00168 Docket

, listed above or, if not identified here by filing date and seria) number or by the Docket Number listed above, executed by me on even No. PU100018 date with my execution of this Assignment/Agreement.

For valuable consideration received, I hereby sett, assign and transfer to Thomson Licensing, a corporation duly organized and existing under the laws of the country of France, its successors, and assigns my entire right, tille and interest, for all countries in and to said inventions, and all the rights and privileges under any and all the rights and privileges under any

country of France, its successors, and assigns my entire right, tille and interest, for all countries in and to said inventions, and all the rights and privileges under any and all Letters Patent that may be granted therefor, and any divisions, continuations, releases and extensions thereof. I agree that, when requested, I will, without charge to said corporation but a lits 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 ald said corporation, its successors, assigns and inventions in any and all representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries. I authorize and ernower said corporation, its successors. Assigns or nominees. I authorize and ernower said corporation, its successors.

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Signed at		Date
Inventor (1)	Thomas Edward Horlander	(Signature in Full. No initials.)
Pos	at Office Address 6234 Haverford Avenu	ue, Indianapolis, Indiana 46220 US
1st Witness	(Type or Print)	(Signature in Full. No initials.)
IndWitness	(Type or Print)	(Signature in Full. No initials.)
Signed at	PAMCETON N.T	Date <u>EEB. 23, 2011</u>
Inventor (2)	Brian Joseph Dorini (Type or Print)	- (Signature in Full: Nathilities.)
Pos	at Office Address 168 Loomis Court, Prin	nceton, New Jersey 08540 US
st Witness	(Type or Print)	- (Signature th Full, Apphilitis)
indWitness	LOIS GREENE	(Signature in Fully No initials.)
Signed at		Date
Inventor (3)	(Type or Print)	(Signature in Full. No initials )
Pos	t Office Address	
st Winess	(Type or Print)	(Signature in Full, No initials )
2ndWiness	(Type o: Prini)	(Signature in Full. No Initiais.)
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