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101386202 To the Honorable Assistant Commissioner for Patents cuments or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Charles William Worrell Name: THOMSON LICENSING S.A.. Michael Evan Crabb Internal Address: Andrew Kent Flickner Wenhua Li Additional name(s) of Yes No X Street Address: 46 Quai A. Le Gallo conveying party(ies) attached: 92648 Boulogne Cedex FRANCE 3. Nature of conveyance: City: State: Zip: Assignment X Merger Security Agreement Change of Name Other Execution Date: May 18th and May 23td, 2000 Additional name(s) & address(es) attached? No X Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: May 18th and May 23rd, 2000 A. Patent Application No.(s) B. Patent No.(s) 119-584 148 Yes No Additional numbers attached? 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved:__1_ concerning document should be mailed: JOSEPH S. TRIPOLI Name: 7. Total Fee (37 CFR 3.41): \$40.00 Internal Address: Thomson multimedia Licensing Inc. _ Enclosed **Patent Operations** Authorized to be charged to deposit account Street Address: P.O. Box 5312 8. Deposit account number: 07-0832 City: PRINCETON State: NEW JERSEY Zip :08543-5312 DO NOT USE THIS SPACE 9. Statement and signature. 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. May 31, 2000 Vincent E. Duffy Name of Person Signing Registration No. 39,964 Total number of pages including cover sheet, attachments, and document: OMB No. 0651-0011 (exp. 4/94) DO NOT DETACH THIS PORTION heet information to: Assistant Commissioner for Patents **Box Assignments** Washington, D.C. 20231 Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded,

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PATENT REEL: 010860 FRAME: 0353

joint inventors

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

it plural inventors	are named below) of the inventions relating to	PRO	CESSING OF PROGRESSIVE VIDEO SIGNALS IN DIGITAL TV RECEIVERS
described in an a	oplication for Letters Patent of the United States of A or, if not identified here by filing date and se		d on under Serial No. or, executed by me on even date with my execution of this
and existing under or all countries in any divisions, and any divisions, and any divisions and any extensions and any extensions and any extensions in any extensions and authorize any extensions in its or protection for salic Property, as amer written or oral authorize any extensions and authorize any extensions and extensions and extensions and extensions and extensions and extensions in any extensions and extensions are extensions and extensions and extensions and extensions are extensions and extensions are extensions and extensions and extensions are extensions and extensions are extensions and extensions and extensions are	ement. De consideration received, I hereby sell, assign and to the laws of the State of Delaware, United States of and to said inventions, and all the rights and privilege continuations, relssues and extensions thereof. at, when requested. I will, without charge to said acted all acts which may be necessary, desirable or and all countries and for vesting title thereto in said countries and for vesting title thereto in said countries and it will communicate to said corporation or its representatives or nominees, to obtain and legal representatives or nominees, to obtain and empower said corporation, its successors, assigned and legal representatives or nominees, to obtain the analysis of the control of the right decomposed of the proper than the consent that a copy of this assignment shall be demay be required in any country for any purpose and invention for the Protection of Industrial Property, as any if with THOMSON LICENSING S.A., its successors, assigns of the consent that the control of the proper protection for said of the proper protection of the property.	ransfer to I America, its es under ar orporation i convenient i proceedi or enforce gris or nomili countries in of priorith in be substituend a fumore partituentions, a nended, or ins, legal red	HOMSON LICENSING S.A., a corporation duly organized is successors, and assigns my entire right, title and interest, by and all Letters Patent that may be granted therefor, but at its expense, sign all papers, take all rightful oaths, make all rightfor securing and malntaining patents or other forms of protection for so its successors, assigns or nominees. In years known to me respecting said inventions and when lings, and generally do everything possible to aid said corporation, it proper protection for said inventions in any and all countries, and to invoke and claim for any application for patent or other form of protection for so and to invoke and claim for any application for patent or other form or provided by the International Convention for the Protection of Industruted for it, and to invoke and claim such right of priority without furthall legal and formal equivalent of any assignment, consent to file or licularly in proof of the right of the said corporation or its successors, assigned to claim the aforesaid benefits of the right of priority provided by the by any convention which may henceforth be substituted for it.
itle and interest h	erein conveyed by me are free and clear of any end	cumbrance	e, and that I have full right to convey the same as herein expressed.
Signed at	Indianapolis, Indiana	Date -	May 23, 2000
Inventor (1)	Charles William Worrell (Type or Print)	-	(Signature in Full. No initials.)
Pos	st Office Address 383 Love Court, Carm	nel, India	ana 46032
1st Witness	Steven Lee Cooper Jr. (Type or Print) James Duane Tenbarge	-	Store Lee Cogur Tr. (Signature in Full. No initials.)
2ndWitness _	(Type or Print)	= 	(Signature in Full. No Initials.)
Signed at	Indianapolis, Indiana	Date -	May 23, 2000
Inventor (2)	Michael Evan Crabb (Type or Print)	-	(Signature in Full. No initials.)
Pos	st Office Address 323 Thornberry Drive,	Carmel	, Indiana 46033
1st Witness	Steven Lee Copper Tr. (Type or Print)	-	Steven Lee Cooper Tr. (Signature in Full. No initials.)
2ndWitness	James Duane lenburgo (Type or Print)	<u> </u>	(Signature in Full. No initials.)
Signed at	Indianapolis, Indiana	Date -	5/20/00 May 23, 2000
Inventor (3)	Andrew Kent Flickner (Type or Print)	-	(Signature in Full. No initials.)
Po	st Office Address 10243 Tammer Drive,	Carmel	, Indiana 46032
1st Witness	Staven Lee Coper Tr (Type or Print)	-	Steven Lee Cogres Tr. (Signature in Full. No initials.)
2ndWitness	James Duane Tenbar	ge_	Ames Duane Tulang (Signature in Full. No initials.)

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I hereby de	eclare that I am the sole inventor (if a	only one inventor is r	named b	elow) or one of	4	joint inventors	
if plural inventors o	are named below) of the inventions	relating to	PROCE	ESSING OF PROGRESSIV	E VIDEO SIGN	NALS IN DIGITAL TV RECEIVER	<u>s</u>
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Assignment/Agree For valuable For valuable For valuable For all countries in countries in countries in countries For all countries in countries For all coun	or, If not Identified here by figerent. Ile consideration received, I hereby so the laws of the State of Delaware, Usind to said inventions, and all the rigontinuations, reissues and extensionat, when requested, I will, without of do all acts which may be necessary and all countries and for vesting title that I will communicate to said corporation and at its expense will transfer own and empower said corporation, its their own name, or in my/our name inventions filed by it or them, the bided, or by any convention which reorization from me. Onsent that a copy of this assignment be required in any country for all ply for patent or other proper prote ention for the Protection of Industrial	ling date and serial I sell, assign and transi Inited States of Ame Inited States of State	number, fer to THC rica, its sinder any ration buenient for penient for the total total priority promining and priority promining substitut and a full the particular priority promining and priority prominin	executed by me on expension of the rigidal and formal equilally in proof of the rigidal properties of the claim the appropriate of the claim the content of the content of the content of the claim to the content of the claim to the claim the claim to content of the claim the claim to content of the claim the claim the claim the claim the appropriate of the rigidal claim the aforesaid and convention whice	, a corporation my entire right that may be a fall papers, tail ning patents nominees. specting said inventions on for patent for any appational Convete and claim walent of an all of the said denefits of himay hence	orny execution of this on duly organized int, title and interest, granted therefor, ke all rightful oaths, make of or other forms of protection d Inventions and when sible to aid said corporation in any and all countries, t or other form of protection plication for patent or othe ention for the Protection of such right of priority without y assignment, consent to fi corporation or its successor the right of priority provide eforth be substituted for it.	n for so r for so r form Industi ut furti le or I s, assign d by t
	t with THOMSON LICENSING S.A., its s erein conveyed by me are free and						
Signed at		C	ate _				
Inventor (4)	Wenhua Li		_				
	(Type or Print)			(Signature in Full. No	o initials.)		
Pos	t Office Address 306 Ryan 1	<u>rail, Brownsbu</u>	rg, Inc	liana 46112			
1st Witness _	(Turne or Drint)			(Signature in Full, No	initials)		
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2ndWitness _	(Type or Print)		_	(Signature in Full. No	o initials.)		
Signed at		Г	Date				
Inventor (5)							
Inventor (5)	(Type or Print)		-	(Signature in Full. No	o initials.)		
Pos	et Office Address						
1st Witness							
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2ndWitness _	(Type or Print)		_	(Signature in Full. No	o initials.)		
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Signed at -			Date —				
Inventor (6)			_				
	(Type or Print)			(Signature in Full. N	o initials.)		
Pos	st Office Address						
let Witness							

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(Signature in Full. No initials.)

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2ndWitness

(Type or Print)

(Type or Print)

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l hereby	declare that I am the sole inventor (if only one invento	or is named	below) or one of a joint inventors	
(if plural inventor	s are named below) of the inventions relating to	PRO	CESSING OF PROGRESSIVE VIDEO SIGNALS IN DIGITAL TV RECEIVERS	_
Assignment/Agrifor all countries in and existing und for all countries in and any divisions. I agree the declarations and inventions in any if agree the requested by said its successors, assignmentions in its approperty, as ame written or oral au I hereby document which or nominees to a loternational Corifornational	eement, able consideration received, I hereby sell, assign and to be consideration received, I hereby sell, assign and to the states of the states of the states of the and to said inventions, and all the rights and privileges, continuations, relssues and extensions thereof, that, when requested, I will, without charge to said act and all acts which may be necessary, desirable or and all countries and for vesting title thereto in said act and I will communicate to said corporation or its representatives or nominees, to obtain the and empower said corporation, its successors, assigns and legal representatives or nominees, to obtain the and empower said corporation, its successors, assigns their own name, or in my/our name, in any and all inventions filed by it or them, the benefit of the right ended, or by any convention which may henceforth thorization from me. consent that a copy of this assignment shall be deal and the property of the property of the property of the property, as amont with THOMSON LICENSING S.A., its successors, assigns	erial number ransfer to Tital number ransfer to Tital number ses under an orporation between the proporation, rentatives call proceedings or nomic countries at of priority be substituted a furmore particularly and countries, all proceedings, all number particularly and countries, all priority be substituted and furmore particularly and countries, all number particularly and countries, all number particularly and countries, all number particularly and countries	HOMSON LICENSING S.A., a corporation duly organized successors, and assigns my entire right, title and interest, by and all Letters Patent that may be granted therefor. Dut at its expense, sign all papers, take all rightful oaths, make all right some and maintaining patents or other forms of protection for securing and maintaining patents or other forms of protection for securing and maintaining patents or other forms of protection for securing and maintaining patents or other forms of protection for securing and maintaining patents.	or said or said orm of dustrial further or like assigns by the
Signed at	Indianapolis, Indiana	Date -		
Inventor (1)	Charles William Worrell (Type or Print) pst Office Address 383 Love Court Carm		(Signature in Full. No initials.)	
	ost Office Address 383 Love Court, Carm	ei, inaic	ind 46032	
1st Witness	(Type or Print)	-	(Signature in Full. No initials.)	
2ndWitness	(Type or Print)	-	(Signature in Full. No initials.)	
Signed at	Indianapolis, Indiana	Date .		
Inventor (2)	Michael Evan Crabb (Type or Print)	-	(Signature in Full. No initials.)	
Po	ost Office Address 323 Thornberry Drive, (Carmel.		
1st Witness				
2ndWitness	(Type or Print)	-	(Signature in Full. No initials.)	
211011111111111111111111111111111111111	(Type or Print)	-	(Signature in Full. No initials.)	
Signed at	Indianapolis, Indiana	Date -		
Inventor (3)	Andrew Kent Flickner	-	(Signature in Full. No initials.)	
Po	(Type or Print) ost Office Address 10243 Tammer Drive, (Carmel	, ,	
1et Witness	102 10 10111111111111111111111111111111			
1st Witness	(Type or Print)	-	(Signature in Full. No initials.)	
2ndWitness				

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(Signature in Full. No initials.)

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Thereby o	leclare that I am the sole inventor (if only one i	nventor is named	below) or one of	4 joint inventors	ı
if plural inventors	are named below) of the inventions relating to	PROC	CESSING OF PROGRESS	IVE VIDEO SIGNALS IN DIGITAL T	✓ RECEIVERS
described in an a	pplication for Letters Patent of the United State	s of America filed	l on	under Serial N	0.
Assignment/Agre	or, if not identified here by filing date ement.	and serial numbei	r, executed by me on	even date with my execution of	† this
For valuate and existing under any divisions, and any divisions, I agree the declarations and any entions in any of the equested by said its successors, assignations in its or protection for said evitten or oral autiliary and existence of the e	ement. Die consideration received, I hereby sell, assign ir the laws of the State of Delaware, United Stat and to said inventions, and all the rights and p continuations, reissues and extensions thereof. Idt, when requested, I will, without charge to s and all countries and for vesting title thereto in art I will communicate to said corporation or its I corporation and at its expense will testify in ar gns and legal representatives or nominees, to a and empower said corporation, its successor their own name, or in my/our name, in any of inventions filed by it or them, the benefit of t inded, or by any convention which may hence consent that a copy of this assignment shall I may be required in any country for any purpos	res of America, its rivileges under an aid corporation be or convenient for said corporation, ir representatives a replegal proceedir betain or enforces, assigns or nominand all countries one right of priority eforth be substituted as telephone and a full countries one of the right of the substitute	successors, and assign y and all Letters Paten out at its expense, sign or securing and maint its successors, assigns on y facts known to me ngs, and generally do proper protection for somes, to make applicated and to invoke and clar provided by the Inter- uted for it, and to invol-	as my entire right, title and interest that may be granted therefor, all papers, take all rightful out all papers, take all rightful out all papers, take all rightful out all ning patents or other forms or nominees. respecting said inventions and severything possible to aid said deald inventions in any and all costion for patent or other form or time for any application for patenational Convention for the Probke and claim such right of privulvalent of any assignment.	est, ths. make all right f protection for so when corporation, untries, f protection for so ent or other form ority without furth consent to file or ii
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	erein conveyed by me are free and clear of a				
Signed at	Indianapolis, Indiana	Date	May !	8, 2000	
Inventor (4)	Wenhua Li		Carl	- L:	
()	(Type or Print)		(Signature in Full. 1	No initials.)	<u></u>
Po	st Office Address 306 Dyan Trail Bro		-1' 4/130		
1 0.	,	wnsburg, ind	alana 46112	7	
1st Witness	YUHONG TANG		Mill	23	
	(Type or Print) YING HEI CHAN		(Signature in Eull.)	Volentials.)	
2ndWitness _	(Type or Print)		(Signature in Full 1	No initials.)	
Signed at		Date -			
Inventor (5)					
	(Type or Print)		(Signature in Full. 1	No initials.)	
Po	st Office Address				
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1st Witness	(Type or Print)		(Signature in Full. 1	No initials \	
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2ndWitness _	(Type or Print)		(Signature in Full. 1	No initials.)	
Signed at		Date -			
Inventor (6)					
	(Type or Print)		(Signature in Full. I	No initials.)	
Po	st Office Address				
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	(Type or Print)		(Signature in Full.)	NO II III (III)	
2ndWitness					

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